

Introduction to Public Health Ethics 3: Frameworks for Public Health Ethics

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Briefing Note

For up-to-date knowledge relating to healthy public policy

The first document¹ in this series of briefing notes² began with the observation that public health practitioners often struggle with ethical decisions in their practice but may not have relevant tools and resources to deal with these challenges. An assumption underlying this third paper is that by providing public health practitioners and decision makers with some guidance about practical public health ethics frameworks, they will be supported in making difficult ethical decisions that are unique to public health practice. In part, the management of ethical challenges will be implicitly or explicitly based on the kind of philosophical perspective one holds in relation to ethical problems in public health and it is important for practitioners to sort out what perspective makes sense to them, so they are guided in their own ethical decision making. The second document in this series³ presents the major philosophical and theoretical perspectives that provide the basis for ethical decision making in public health and that ground various public health ethics frameworks. The purpose of this paper, the third in the series, is to present, compare and critique selected ethics frameworks for public health, relating these to their theoretical and ethical foundations. A brief discussion about the future of public health ethics concludes the paper.

What kind of frameworks might work for public health ethics?

The term “framework” has been used in a number of ways; we use it here to mean a general guide to decision making or practice that identifies key concepts or ideas that need to be taken into account. A framework can sometimes explicate the relationships among the concepts. Dawson (2010) says that the function of a framework in public health ethics is to provide assistance with deliberation about ethical decision making in

particular contexts by making values explicit. While ultimately linked in some way to theory, a framework is “... ‘closer’ to the reality of day-to-day decision making in an applied context” (Dawson, 2010, p. 193).

Prior to about the year 2000, most applications of ethics in public health drew on the four basic principles of biomedical ethics – autonomy, beneficence, non-maleficence, and justice (Beauchamp & Childress, 1979) – perhaps with some modification to make them fit the public health issue at hand. Often, the application and modification of these principles made sense for particular public health situations. For example, in 1986 in the early days of the HIV/AIDS epidemic, Bayer, Levine, and Wolf (1986) proposed a framework to guide ethical decision making about screening for HIV. This framework relied upon the four principles identified above but with slight modifications: respect for persons, the harm principle, beneficence (actions done for the benefit of others), and justice served as the basis for seven prerequisites for HIV screening. The application of these principles and prerequisites to decision making about HIV screening continues to be reflected in screening guidelines to this day. The harm principle is central in most public health ethics frameworks. Kass (2001) has argued, however, that when analyzed within a traditional bioethics framework, public health actions are seen as allowable exceptions to ethical principles, if not quite a breach of ethics. Instead, she states that we need public health ethics frameworks that make the values base of public health explicit so that public health actions are justifiable in their own right and in positive terms, not as exceptions to biomedical ethical principles.

Over the past fifteen years, however, a number of authors have proposed frameworks to guide ethical public health practice that are more explicitly grounded in the moral aims of public

¹ MacDonald, M. (2014).

² This series of papers is based upon a previously published book chapter (MacDonald, 2013).

³ MacDonald, M. (2015).



health and its values. This is based on the argument that ethical decision making in public health requires unique considerations not necessarily relevant to ethical decision making in health care more broadly. Some of these public health ethics frameworks are more practical than others and many are nascent and not fully formed. Despite this development, there is nowhere near a consensus on the most appropriate frameworks for public health ethics, or on whether one framework that can cover every area of public health could or should be developed.

CRITERIA FOR SELECTING, COMPARING AND EVALUATING FRAMEWORKS

Despite the lack of consensus on appropriate frameworks for public health, Kenny, Melnychuk and Asada (2006) have identified specific characteristics for judging the adequacy of any public health ethics framework. These characteristics imply both a particular view of public health and a set of values underlying public health ethics, but they are consistent with the view of public health and its underlying values that were discussed in the first two papers in this series, and with the author's own views. To date, however, we have not found any other references identifying criteria for assessing public health ethics frameworks. Accordingly, we draw on these criteria to evaluate the frameworks we have identified for comparison. Naturally, others may disagree.

Kenny et al. (2006) propose that an appropriate public health ethics framework would:

- 1) Address the tension between public and individual interests;
- 2) Attend to concepts like the common good and public interest;
- 3) Clarify the relationship between public health and health care;
- 4) Identify the central role of the social and economic determinants of health;
- 5) Recognize the importance of reducing health inequities and attend to the most vulnerable because public health is inherently concerned with social justice.

CATEGORIZING FRAMEWORKS

A number of authors have identified different categorizations to describe public health ethics frameworks. Lee (2012), for example, reviewed 13 public health ethics frameworks, and categorized them as either *practice-based* or *theory-based*.

Practice-based frameworks emerged from the experiences of practitioners that clinical ethics frameworks were not adequate for addressing the ethical challenges in public health practice. They tend not to be explicit about their theoretical or philosophical underpinnings. Although not explicit, it is possible to infer their philosophical bases from the concepts and principles they espouse. Theory-based frameworks attempt to address the criticism that practice-based frameworks comprise a set of mid-level principles that are too open to interpretation. These frameworks derive from some ethical or other philosophical perspective and their application involves staying true to the underlying philosophy in public health decision making.

Brody, Hermer, Eagen, Bennett, and Avery (2010) have developed another categorization of public health ethical frameworks, defining them as one of *traditional*, *expansive* or *mixed*. Traditional frameworks follow the philosophical orientation of biomedical ethics in prioritizing individuals and placing individual liberty and autonomy as the paramount values. Even though all framework authors acknowledge that the emphasis of public health ethics is on population health, the traditional and some mixed approaches often require considerable justification for any infringement on individual liberty. Despite recognition that there may be some unique features of public health that require a different sort of analysis, traditional public health frameworks nonetheless use biomedical ethical principles as the starting place. They are grounded in the "core problem of liberalism" (Brody et al., 2010, p. 6) which is about how to maintain individual freedom while protecting the health of the community or population. The burden of proof is placed on other principles, which are considered inadequate to trump individual liberty without meeting a specific threshold (Brody et al., 2010).

Expansive frameworks tend to distinguish public health ethics from clinical or biomedical ethics, taking the core values of public health as their starting place. They are generally grounded in theories of social justice, emphasizing the social determinants of health. Situated in a communitarian-like perspective, they do not take as a given the classic liberal tension between the individual and the community or the liberal dilemma about when to prioritize public protection over individual liberty. The starting place is about determining what is best for all of us together. At the same time, individuals and communities are acknowledged to be interdependent; accordingly, a

communitarian would likely see a false dichotomy in separating communities from the individuals of which they are composed. Perhaps most importantly, communitarians view public health as having a positive agenda in society; values or principles related to community, the common good, and solidarity are important in their own right (Brody et al., 2010) and given priority.

A third category is that of mixed frameworks, which contain some of the same principles and foundations of both traditional and expansive approaches. Depending on their orientations and their guiding principles, mixed frameworks vary considerably along the continuum between traditional and expansive approaches (Brody et al., 2010).

For our purposes of analyzing and comparing public health ethics frameworks, we have adopted Brody et al.'s (2010) categorization because Lee (2012) has already conducted an extensive comparison based on the theory versus practice-based distinction and we see no reason to repeat that. We believe that the second categorization may be more helpful in guiding practitioners by explicitly identifying the philosophical and theoretical foundations inherent in the practice-based frameworks, which Lee has not done.

Appendix 1 presents 8 selected frameworks, categorized as traditional, expansive, or mixed. We have selected three traditional frameworks as examples of this type: Childress et al. (2002), Upshur (2002), and Selgelid (2009). The work in the expansive category of framework is generally more recent, and tends to reflect a broad communitarian perspective. As such, we were only able to identify two expansive frameworks: Baylis, Kenny, and Sherwin (2008) and Tannahill (2008). Three mixed frameworks were also selected as examples: Kass (2001), Public Health Leadership Society (2002), and Thompson, Faith, Gibson, and Upshur (2006).

In column 1, the author(s), date of publication, and title of the article or framework are provided; column 2 describes the purpose and audience of the framework. In column 3, there is a description of each framework, identifying the distinct elements and principles that guide action or provide steps in the decision-making process. Column 4 presents the underlying philosophical and theoretical foundations for each framework. Although most of the authors do not explicitly identify the

philosophical and theoretical underpinnings, it is possible to infer their foundations by carefully examining their principles and steps. Column 5 provides a brief critique that identifies the strengths and limitations of each framework.

Comparative analysis of the frameworks

The frameworks selected for analysis represent a diverse range of approaches to public health ethics. They vary with respect to their purpose and the public health issue they address, the principles and process guiding ethical analysis, their approach whether traditional, expansive or mixed, their theoretical and philosophical foundations and the extent to which they meet the criteria for an appropriate public health ethics framework as identified by Kenny et al. (2006). We highlight similarities and differences among the frameworks along each of these lines in turn.

PUBLIC HEALTH ISSUE

Some frameworks focus specifically on a particular public health problem such as environmental hazards, infectious diseases, and pandemic influenza (Selgelid, 2009; Thompson et al., 2006; Upshur, 2002). Others are more general frameworks, intended to apply to a range of public health issues (Baylis et al., 2008; Childress et al., 2002; Kass, 2001; Public Health Leadership Society, 2002; Tannahill, 2008).

PRINCIPLES AND PROCESS

At this stage in the development of public health ethics, most frameworks are primarily a collection of principles developed through ethical analysis and thus are practice-based rather than being empirically derived from research that demonstrates their utility in specific situations. One exception is a Canadian framework developed to guide ethical decision making in pandemic planning (Thompson et al., 2006), which has been studied empirically. This broad approach of identifying a set of principles to be considered and specified when facing a decision that may contain ethical issues has been termed *principlism*. Principlism has come under criticism within health care ethics (Beauchamp, 1995; Clouser & Gert, 1990), primarily in relation to its lack of grounding in, or connection to, ethical theory. This criticism may not be entirely fair because, as illustrated in Appendix 1, the underlying theoretical basis is often

implicit and can be identified. Despite criticism, principlism retains appeal in practice as a robust and useful way of helping practitioners think about ethical issues when they do not have training in ethics or philosophy (Upshur, 2002).

Some frameworks clearly distinguish between substantive and procedural principles. This development represents a conceptual clarification across the three categories of frameworks (traditional, mixed, and expansive) and is a practical step forward in helping practitioners to think through, first, the substantive principles that inform decisions and delineate the essence of the ethical question being posed, and second, the processes by which those values can be enacted. Kenny et al. (2006), for example, provide useful definitions of both procedural and substantive values in addition to defining “terminal” values for public health ethics. “A developed public health ethic could assist in identifying the goals of policy and action (the terminal values), the appropriate and fair process for development, implementation and evaluation of the policy (procedural values) and the criteria – values and principles – on which a policy or decision are based (substantive values)” (p. 403). Terminal values, as the goals of policy and action, are congruent with the moral aims of public health as identified, for example, by Powers and Faden (2006) as promoting population health and health equity. Public health ethics frameworks, whatever the category, that do not distinguish between substantive and procedural values could be made more useful for practitioners by making the distinction explicit.

While many of the frameworks identify only principles (e.g., Baylis et al., 2008; Public Health Leadership Society, 2002; Selgelid, 2009), a few offer more practical guidance in that they provide a set of steps with a logical ordering in which some values are prioritized over others (Kass, 2001; Upshur, 2002). These tend to be the mixed frameworks although not exclusively. A few frameworks offer guidance on choosing between values or principles when they conflict (e.g., Childress et al., 2002). One framework is really a professional code of ethics for public health (Public Health Leadership Society, 2002).

Although several frameworks identify some of the same substantive principles (e.g., the harm principle), there is a wide range of principles, both substantive and procedural, reflected. Some frameworks identify only a few principles (e.g.,

Upshur, 2002) while others identify many (e.g., Thompson et al., 2006). At the same time, there may be other important public health ethical principles that have not made their way into most of these frameworks (e.g., the precautionary principle) but which are being increasingly recognized as important to ethical decision making in public health (Chaudry, 2008; Rosner & Markowitz, 2002). The challenge is that there is no widespread agreement on the principles and the few public health ethics frameworks that have been developed have not been widely debated by the public health community. Kenny et al. (2006) argue that work to date has identified an exhaustive list of principles and propose that we need to identify and justify a core list on which we can agree. Others, like Dawson (2010), argue that we cannot expect to rely on just one framework to meet all of our needs. Moreover, there have been only a few published applications of some of these frameworks (see Appendix 3 for examples of specific applications) and those tend to focus on the example of communicable disease. The field would benefit from more exemplars of framework applications that go beyond this narrow focus to encompass a broader range of public health issues. In particular, exemplars of framework applications of the newer expansive approaches would be particularly helpful.

COMPARING TRADITIONAL, EXPANSIVE AND MIXED APPROACHES

As discussed above, traditional frameworks tend to be more firmly grounded in liberal values in which liberty is prioritized over public protection, justice and perhaps even equality or equity. They draw on the four traditional biomedical ethical principles, do not appear to acknowledge the interdependence of individuals and communities, and offer what Kass (2004) calls a negative agenda for public health ethics. That is, principles specific to the population level concerns of public health ethics are not framed in positive terms but rather as permissible violations of autonomy and liberty. At the same time, some argue that it is more likely that these frameworks will achieve the broadest range of acceptance (Bull, Riggs, & Ngochu, 2013) across the public health community and beyond. This remains to be seen.

The expansive frameworks have an explicit concern with values that could be characterized as broadly communitarian even if their authors do not name them as such. For example, Baylis et al. (2008) use language to name and describe their principles that implicitly and explicitly reflect

communitarian and feminist values. Individual freedoms are not privileged over community or population concerns, but are seen to exist in relation to each other in interdependence. Moreover, both expansive frameworks explicitly promote social justice and equity.

Mixed frameworks share principles with both traditional and expansive approaches. Those closer to the traditional end of the continuum might have only one expansive principle, such as the framework by Thompson et al. (2006), which includes the principle of solidarity, also seen in Baylis et al.'s (2008) approach. The remainder of the principles in Thompson et al.'s framework, however, are those shared with the more traditional frameworks. Kass's (2001) framework could be characterized as roughly midway between traditional and expansive, but with a leaning toward the expansive. She has a concern with social justice and equity, acknowledging the positive obligation of public health to intervene when injustice or inequities exist. At the same time, she retains a concern with the classic liberal tension between protecting the public and avoiding violations of individual autonomy. This concern seems to be at odds with her concern about avoiding a negative agenda for public health. The Public Health Leadership Society's work (2002) is also a mixed framework⁴ but leans more to the expansive approach in that it takes the community as its starting place, emphasizes the interdependence of the individual and the community, and promotes the empowerment of the disenfranchised.

PHILOSOPHICAL AND THEORETICAL FOUNDATIONS

Utilitarianism is a common ethical theory reflected in traditional and some mixed frameworks in the concern with maximizing utility. All reflect public health's consequentialist concern for improving population health. In other words, all the frameworks are either implicitly or explicitly concerned with promoting the health of the population, which, according to Powers and Faden (2006), is one of two moral aims of public health. A few, primarily the mixed and expansive frameworks, also incorporate a focus on promoting health equity, usually framed as reducing health

inequities or disparities, which is the second moral aim of public health (Powers & Faden, 2006). Although most of the frameworks are concerned with justice, it is primarily distributive justice – that is, ensuring the benefits and burdens of public health interventions are shared fairly. The exceptions are the expansive frameworks which have an explicit conceptualization of social justice that is distinct from distributive justice in its concern not only with the distribution of material resources but with fairness and mutual obligations in society and an explicit concern with those who experience inequities as a result of unjust social arrangements. Nonetheless, expansive frameworks also recognize the importance of distributive concerns.

Because most frameworks, particularly traditional and mixed, derive from liberalism, it is not surprising that they reflect elements of both utilitarian and contractarian theories. There are some mixed frameworks containing one or more specific principles that reflect a communitarian ethical perspective (e.g., Public Health Leadership Society, 2002; Thompson et al., 2006), but only one of the expansive frameworks (Baylis et al., 2008) could be categorized as primarily communitarian given that it draws heavily on communitarian, feminist, and civic republican concepts and cites key authors in these traditions; however, as noted above, the authors themselves do not refer to their feminist relational framework as communitarian.

COMPARISON OF FRAMEWORKS ON CRITERIA FOR JUDGING ADEQUACY

Each of the traditional, expansive, and mixed frameworks were assessed for the extent to which they meet the five criteria for judging the adequacy of public health ethics frameworks, as identified above by Kenny et al. (2006). Appendix 2 describes whether and in what ways these criteria are met.

Criterion One states that a public health ethics framework should address the tension between public health and individual interests. All of the traditional frameworks do this explicitly, providing guidance about when public health interests might override individual liberty, autonomy, or some other value (e.g., privacy). In these frameworks, stringent conditions must be in place to warrant violation of individual liberty or autonomy. One mixed

⁴ Note that although we use Brody et al.'s (2010) categorization of ethics frameworks as traditional, mixed, and expansive, we do not necessarily agree with their classification of specific frameworks. For example, they identify the Public Health Leadership Society's code of ethics as traditional, but we have classified it as mixed. Appendix 2 outlines the rationale for our own classification of frameworks for each category irrespective of Brody et al.'s classification.

framework (Thompson et al., 2006) does provide some guidance on addressing this tension, but this framework sits very close to the traditional end of the spectrum between traditional and expansive frameworks so this should not be so surprising. The rest of the mixed and the expansive frameworks either do not specifically address this tension, or do so only in part. Because the expansive frameworks tend not to take the classical liberal tension between individual and collective interests as a given, and because this tension is reframed as relational in terms of the interdependence between individual and community, perhaps the authors do not see this tension as a priority. In any case, in these frameworks, the community is the starting place for this discussion.

Criterion Two states that an adequate public health ethics framework should take into account the public interest and the common good. In the traditional frameworks, there is either no or limited attention to the common good specifically, although some concern with the public interest might be inferred through their attention to the harm principle in that restrictions on liberty are justified to prevent harm to others or the public. Both expansive frameworks do attend to the common good, although Baylis et al. (2008) do this more explicitly than does Tannahill (2008). Of the mixed frameworks, only the Public Health Leadership Society's (2002) framework explicitly attends to the common good. Kass's framework does this only partially and not directly whereas Thompson et al. (2006) do not attend to the common good at all.

According to Criterion Three, an adequate framework should clarify the relationship between public health and health care. Among the traditional frameworks, Upshur (2002) does this very explicitly, whereas Childress et al. (2002) do this only in part. Selgelid (2009) does not do this at all. Similarly, two of the three mixed frameworks do not make this clarification and only one of the expansive frameworks does so (Baylis et al., 2008).

Criterion Four specifies that an appropriate public health ethics framework should attend to the social determinants of health. None of the traditional frameworks share this concern, nor does the Thompson et al. (2006) mixed framework, which as noted previously, is very close to the traditional frameworks. The remainder of the mixed frameworks and the expansive frameworks do share this characteristic very explicitly.

Finally, Criterion Five says that an adequate public health ethics framework should recognize the importance of reducing health inequities and attending to the most vulnerable populations. As might be expected, the expansive frameworks strongly and explicitly share this characteristic as do two of the three mixed frameworks. Neither the traditional frameworks nor the more traditional Thompson et al. (2006) mixed framework are explicitly concerned with reducing health inequities or with prioritizing disadvantaged or marginalized populations to reduce unfair disparities in health.

Overall, the conclusion that can be drawn is that the expansive and some of the mixed frameworks are most likely to have more or even most of the characteristics that demonstrate the adequacy and appropriateness of public health ethics frameworks, according to the criteria set out by Kenny et al. (2006). As previously noted, there is no consensus on a normative framework for public health ethics (Wilson, 2009) despite the development of diverse frameworks. The selection of a framework will be determined, in part, by the practitioner's own philosophical orientation – even if not explicitly acknowledged – as well as by the issue at hand and the larger context in which the issue is situated. Although public health practitioners share many of the same aims and values, there are often subtle differences in the values underlying these shared aims. For these reasons, it seems unlikely that there will be agreement any time soon on a common ethical framework for public health because the different frameworks reflect different perspectives on public health and its underlying values. For these reasons, as Wilson (2009) argued, there is no one-size-fits-all normative framework for public health.

Areas for future work in public health ethics

So where are we and where do we go from here? Despite its relative newness, public health ethics has come a long way with extensive theoretical and empirical work being conducted internationally as well as in Canada. Development of the philosophical underpinnings and frameworks to guide practice and decision making has been substantial but the results remain tentative, contradictory, and not always practically useful. Most frameworks remain grounded in a utilitarian or contractarian ethics perspective, with little development of communitarian frameworks, which

arguably may be more in line with the core values and commitments of public health. What work has been done from a communitarian/relational perspective is more theoretical than practical and even the authors of these frameworks acknowledge there is much work yet to be done (Baylis et al., 2008). Thus, further development of communitarian frameworks with practical applications will help to provide guidance to practitioners in making decisions in concrete situations. At the same time, traditional and mixed frameworks would also benefit from further development, particularly to align them more explicitly with the moral aims of public health, and to provide more practical guidance.

Whether one adopts a traditional, expansive or mixed framework, there is a wide range of important public health issues confronting us. These issues demand ethical analysis. In particular, practical applications that go beyond a focus on infectious diseases would be very helpful. For example, Kenny et al. (2006) identify a series of ethical issues yet to be addressed in each of the core functions of public health: health protection, health surveillance, disease and injury prevention, population health assessment, health promotion, and disaster response. Daniels (2011) proposes a broader bioethics agenda that clearly draws on the work and thinking being done in public health ethics. He argues that the equity agenda, which is on the public health agenda, be taken up by bioethics more broadly. If this is the case, we may see less of a deep divide between the commitments of public health and health care. Daniels proposes the need to focus on equity in three key areas: (1) health inequalities between different social groups and the policies needed to reduce them; (2) intergenerational equity in the context of rapid societal aging; and (3) issues of equity raised by international health inequalities.

Wikler and Brock (2007) provide a much longer list of ethical issues that require focus in the future. These include: defining societal versus individual responsibility for health; the relationship between health and human rights at the population level; priority setting in public health; cost-effectiveness analysis and its seeming inability to take equity into consideration;⁵ the relationship between health and

economic development; ethics in emergency humanitarian interventions; environmental justice and equity; population genetics; global aging; global health equity; the social determinants of population health; research ethics and social justice; the practice implications of a population perspective; and health system reform. For each of these, the authors identify key ethical questions but observe that ethical analysis related to most of these questions has been limited to date. More than a laundry list, these issues provide a useful agenda for further research and development in the field of public health ethics.

In 2004, Nancy Kass suggested that the future of public health ethics would focus on public health research ethics, global ethics and environmental justice. With respect to research ethics, recent work in Canada has begun to tackle the question of whether the criteria for judging the ethics of research, as reflected in the Tri-Council Policy Statement: *Ethical Conduct for Research Involving Humans* (known as TCPS 2) (<http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/Default/>), fully takes the concerns of population and public health into account. Public Health Ontario (2012) has also developed a framework, using a public health lens, which is intended to guide public health researchers and reviewers in planning for and evaluating the ethical conduct of public health research. The framework draws on, among other things, Kass' (2001) public health ethics framework.

In addition, the Government of Canada's Panel on the Responsible Conduct of Research (<http://www.rcr.ethics.gc.ca/eng/srcr-scr/tor-cdr/>) has established an expert committee to advise on issues specific to the ethics of population and public health research. The goal of the panel is to add guidance specific to these issues to the Tri-Council Policy Statement. The panel has acknowledged that although TCPS 2 represents a significant revision of the original 1998 edition of the TCPS, it does not yet address issues specific to research in the fields of population and public health. The aims of this committee are to identify key ethics issues in these fields of research, help craft ethics guidance in response to these issues, and advise how such guidance could best be integrated into TCPS 2. The work is ongoing.

⁵ For more information on this subject, see Rozworski (2014) et Rozworski & Bellefleur (2013).

The issues of global ethics and environmental justice are other areas for future development in public health ethics that many believe is urgently required and may actually contribute to the reduction of health inequities both within nation states and globally (Benatar, Daar, & Singer, 2003). In the global context of rapid advances in science and technology, growing health inequities, increasing levels of extreme poverty, inequities in the patterns of health care expenditures across the globe, and population growth with its attendant increase in overconsumption and environmental degradation, Benatar et al. argue convincingly for the importance of global health ethics that takes environmental justice into consideration. They make very clear the ethical challenges for which solutions are essential to prevent massive rebellion and violence from those disenfranchised groups that are systematically excluded from the benefits that others have achieved or who may systematically experience the negative consequences of environmental degradation.

Conclusion

There is emerging agreement that an ethics to guide decision making in public health will be distinct from the ethics that guides health care decision making more generally. Such an ethics should be grounded in the values and principles unique to public health. To date, there is no consensus on a normative framework for public health ethics, but considerable progress has been made in the development of frameworks that do take into account the unique values base and moral aims of public health. There is unlikely to be a single framework to guide public health ethical decision making; rather, the specific public health issue, the unique context, and the philosophical orientation of those involved will determine which framework might be most appropriate in a given set of circumstances. There is still much work to be done in this field, including: greater explication of those frameworks that do not currently provide much detailed guidance in their application; the development of concrete exemplar cases for available public health ethics frameworks applied to a much broader range of public health problems than have been addressed to date; more ethical analysis of the many public health issues that have not yet been addressed in any significant way; and attention to emerging and potential crises in public health, particularly in the areas of global ethics and environmental justice.

References

- Bayer, R., Levine, C., & Wolf, S. M. (1986). HIV antibody screening: An ethical framework for evaluating proposed programs. *Journal of the American Medical Association*, 256(13), 1768–1774.
- Baylis, F., Kenny, N. P., & Sherwin, S. (2008). A relational account of public health ethics. *Public Health Ethics*, 1(3), 196–209.
- Beauchamp, T. L. & Childress, J. E. (1979). *Principles of biomedical ethics*. New York: Oxford University Press.
- Beauchamp, T. L. (1995). Principlism and its alleged competitors. *Kennedy Institute of Ethics Journal*, 5(3), 181–198.
- Benatar, S. R., Daar, A. S., & Singer, P. A. (2003). Global health ethics: The rationale for mutual caring. *International Affairs*, 79(1), 107–128.
- Brody, H. A., Hermer, L. D., Eagen, S., Bennett, A., & Avery, E. (2010). *Frameworks for public health ethics and their application to the statewide allocation of resources in novel H1N1 influenza: A report to the Texas Department of Health Services*. Retrieved from: <http://www.phe.gov/coi/Documents/Frameworks%20for%20Public%20Health%20Ethics%20and%20Their%20Application%20to%20the%20Statewide%20Allocation%20of%20Resources%20in%20Novel%20H1N1%20Influenza.pdf>
- Bull, T., Riggs, E., & Nchogu, S. N. (2013). *Report from the ISECN Working Group: Recommendations for an IUHPE model for ethics in health promotion*. Retrieved from: <http://isecn.org/wp-content/uploads/2013/03/Recommendations-for-an-IUHPE-model-of-ethics-in-health-promotion.pdf>
- Canadian Nurses Association. (2006). *Ethics in practice for registered nurses*. Ottawa: Author. Retrieved from: http://cna-aiic.ca/~media/cna/page-content/pdf-en/ethics_in_practice_jan_06_e.pdf
- Chaudry, R. V. (2008). The precautionary principle, public health and public health nursing. *Public Health Nursing*, 25(2), 261–268.
- Childress, J. E., Faden, R. R., Gaare, R. D., Gostin, L. O., Kahn, J., Bonnie, R. J., ... Nieberg, P. (2002). Public health ethics: Mapping the terrain. *Journal of Law, Medicine & Ethics*, 30, 170–178.
- Clouser, K. & Gert, B. (1990). A critique of principlism. *Journal of Medicine and Philosophy*, 15, 219–236.
- Daniels, N. (2011). Equity and population health: Toward a broader bioethics agenda. In A. Dawson (Ed.), *Public health ethics: Key concepts and issues in policy and practice* (pp. 191-210). Cambridge: Cambridge University Press.
- Dawson, A. (2010). Theory and practice in public health ethics: A complex relationship. In S. Peckham & A. Hann (Eds.), *Public health ethics and practice* (pp. 191-209). Bristol: The Policy Press.
- Jennings, B. (2003). Frameworks for ethics in public health. *Acta Bioethica*, 9(2), 165–176.
- Kass, N. E. (2001). An ethics framework for public health. *American Journal of Public Health*, 91(11), 1776–1782.
- Kass, N. E. (2004). Public health ethics: From foundations and frameworks to justice and global public health. *Journal of Law, Medicine & Ethics*, 32, 232–242.
- Kass, N. E. (2005). An ethics framework for public health and avian influenza pandemic preparedness. *Yale Journal of Biology and Medicine*, 78, 235–250.
- Kenny, N. P., Melnychuk, R., & Asada, Y. (2006). The promise of public health: Ethical reflections. *Canadian Journal of Public Health*, 97(5), 402–404.
- Kenny, N. P., Sherwin, S. B., & Baylis, F. E. (2010). Re-visioning public health ethics: A relational perspective. *Canadian Journal of Public Health*, 101(1), 9–11.
- Lee, L. M. (2012). Public health ethics theory: Review and path to convergence. *Public Health Reviews*, 34(1), 1–26.

- MacDonald, M. (2013). Ethics of public health. In J. L. Storch, P. Rodney, & R. Starzomski (Eds.), *Toward a moral horizon: Nursing ethics for leadership and practice*. Pearson Education Canada.
- MacDonald, M. (2014). *Introduction to public health ethics 1: Background*. Montréal, Québec: National Collaborating Centre for Healthy Public Policy. Retrieved from: http://www.ncc.hpp.ca/docs/2014_Ethics_Intro1_En.pdf
- MacDonald, M. (2015). *Introduction to public health ethics 2: Philosophical and theoretical foundations*. Montréal, Québec: National Collaborating Centre for Healthy Public Policy. Retrieved from: http://www.ncchpp.ca/docs/2015_Ethics_Intro2_En.pdf
- Omer, S. B. (2013). Applying Kass's public health ethics framework to mandatory health care worker immunization: The devil is in the details. *American Journal of Bioethics*, 13(9), 55–57. doi: 10.1080/15265161.2013.825122
- Paquin, L. J. (2007). Was WHO SARS-related travel advisory for Toronto ethical? *Canadian Journal of Public Health*, 98(3), 209–211.
- Pederson, A., Rice, W., Long, P., Jategaonkar, N., Greaves, L., Chasey, S., ... Bottorff, J. L. (2012). Equitable consequences? Issues of evidence, equity, and ethics arising from outdoor smoke-free policies. In Canadian Institutes of Health Research – Institute of Population and Public Health. *Population and public health ethics: Cases from research, policy and practice* (pp. 65-69). University of Toronto Joint Centre for Bioethics: Toronto, ON. Retrieved from: <http://www.icb.utoronto.ca/publications/documents/Population-and-Public-Health-Ethics-Casebook-ENGLISH.pdf>
- Powers, M. & Faden, R. (2006). *Social justice: The moral foundations of public health and health policy*. New York: Oxford University Press.
- Public Health Leadership Society. (2002). *Principles of the ethical practice of public health*. Public Health Ontario. (2012). *A framework for the ethical conduct of public health initiatives*.
- Rawls, J. (1971). *A theory of justice*. Cambridge: Harvard University Press.
- Rosner, D. & Markowitz, G. (2002). Industry challenges to the principle of prevention in public health: The precautionary principle in historical perspective. *Public Health Reports*, 117, 501–512.
- Rozworski, M. (2014). *Methods of economic evaluation: What are the ethical implications for healthy public policy*. Montréal, Québec: National Collaborating Centre for Healthy Public Policy. Retrieved from: http://www.ncchpp.ca/docs/2014_EvalEcon_Methodes_En.pdf
- Rozworski, M. & Bellefleur, O. (2013). *An introduction to the ethical implications of economic evaluations for healthy public policy*. Montréal, Québec: National Collaborating Centre for Healthy Public Policy. Retrieved from: http://www.ncchpp.ca/docs/EthiqueEvalEcon_EN.pdf
- Selgelid, M. J. (2009). A moderate pluralist approach to public health policy and ethics. *Public Health Ethics*, 2(2), 195–205
- Tannahill, A. (2008). Beyond evidence – to ethics: A decision-making framework for health promotion, public health and health improvement. *Health Promotion International*, 23(4), 380–390.
- Thomas, J. C., Sage, M., Dillenburg, J., & Guillory, V. J. (2002). A code of ethics for public health. *American Journal of Public Health*, 92(7), 1057–1059.
- Thompson, A. K., Faith, K., Gibson, J. L., & Upshur, R. E. G. (2006). Pandemic influenza preparedness: An ethical framework to guide decision-making. *BMC Medical Ethics*, 7(12). Retrieved from: <http://www.biomedcentral.com/1472-6939/7/12>
- Upshur, R. E. G. (2002). Principles for the justification of public health intervention. *Canadian Journal of Public Health*, 93(2), 101–103.

Wikler, D. & Brock, D. W. (2007). Population-level bioethics: Mapping a new agenda. In A. Dawson & M. Verweij (Eds.). *Ethics, prevention and public health* (pp. 78-94). New York: Oxford University Press.

Wilson, J. (2009). Towards a normative framework for public health ethics and policy. *Public Health Ethics*, 2(2), 184–194.

Young, I. M. (1990). *Justice and the politics of difference*. Princeton: Princeton University Press.

Appendix 1 Analysis of public health ethics frameworks according to the categorization by Brody et al. (2010)

Framework	Purpose	Description	Underlying philosophy or theory	Critique
Traditional Frameworks				
Childress et al. (2002). <i>Public Health Ethics: Mapping the Terrain</i>	To propose a set of general moral considerations broadly relevant to public health (PH) in relation to the justificatory conditions that support a higher weighting of particular moral considerations in specific circumstances to provide concrete guidance. Aimed at general PH issues.	The general moral considerations are (excerpted and adapted from Childress et al., 2002, pp. 171-172): <ol style="list-style-type: none"> 1. Creating benefits (beneficence) 2. Preventing, eliminating, or avoiding harms (non-maleficence) 3. Maximizing benefits over harms (utility) 4. Fair distribution of benefits and burdens (distributive justice) 5. Providing adequate opportunities for the public to participate, particularly those affected (procedural justice) 6. Respecting autonomous choices and action (autonomy and liberty) 7. Ensuring that privacy and confidentiality are protected 8. Keeping promises and commitments 9. Disclosing information and speaking truthfully (transparency) 10. Building trust and maintaining it When there is conflict among the general moral considerations, five justificatory conditions are proposed to help determine when one moral consideration should be given priority over another in the interest of promoting PH. The conditions are: <ol style="list-style-type: none"> 1. Effectiveness – to justify infringing on one of the moral considerations, the action should be effective in protecting PH. 2. Proportionality – the potential health benefits must outweigh the negative consequences of infringing a moral consideration. 3. Necessity – a PH action must not only be effective in protecting PH but must be necessary, particularly if the strategy is coercive. 4. Least infringement – PH officials should use strategies that infringe the least on the moral considerations. 	The authors argue that the general moral considerations are not tied to any particular theory. Each may be more or less prominent in particular philosophical or theoretical perspectives. Despite this argument, the general moral considerations resonate primarily with liberalism as reflected in the use of Mill's harm principle; emphasis on the principles of autonomy, liberty, and distributive justice (from a Rawlsian perspective – Rawls, 1971). Utilitarianism (grounded in the conception of the autonomous agent, similar to the self-determining individual of liberalism) is reflected in the emphasis on maximizing utility.	Takes context into consideration by recognizing that different considerations and different justificatory conditions will apply in different settings, with different PH issues, and in different population groups. This makes it comprehensive and broadly applicable. Provides explicit practical guidance for weighting one moral consideration over another. There is, however, no explicit attention to equity in health or attending to the needs of the most disadvantaged. This framework has significant areas of overlap with several other PH ethics frameworks. The principles include both procedural and substantive principles, which are not distinguished as such. Although some considerations, particularly procedural ones, might be shared by communitarians, there are no general moral considerations or justificatory conditions that would explicitly prioritize the community over the individual or acknowledge their interdependence. However, benefit for the community as a whole could potentially be

Framework	Purpose	Description	Underlying philosophy or theory	Critique
		5. Public justification – when a PH action infringes on one or more moral considerations, it must be explained and justified to the public and particularly to those who are most affected (transparency).		accounted for in the first moral consideration.
Selgelid (2009). <i>A Moderate Pluralist Approach to Public Health Policy and Ethics</i>	To provide a principled means for striking a balance between the values of utility, liberty and equality in cases where they conflict. Rather than choosing among these independent values, because none would have absolute priority in all circumstances, we should seek creative ways of promoting all three values at the same time. Aimed at PH issues in which infringements on liberty may be at stake, particularly infectious disease control.	Defined by the author as a “pluralist theory” drawing from other frameworks that have identified principles for making trade-offs among social values. He suggests possible ways of developing approaches for striking a balance between principles that consider strategies, not as either acceptable or unacceptable, but rather as having degrees of acceptability or unacceptability using measures such as disability-adjusted life years (DALYs) to make the calculations. The principles he offers as a starting point are (excerpted and adapted from Selgelid, 2009, p. 202): 1. Liberty restriction in the name of PH should be based on evidence of effectiveness in protecting or promoting health. 2. The least restrictive or liberty-infringing option should be used. 3. Extreme liberty-infringing strategies should not be imposed unless not doing so would have severe consequences. 4. These strategies should be used equitably (i.e., in a non-discriminatory way). 5. Any necessary liberty infringement should be applied so as to be minimally burdensome. 6. There should be compensation for those whose liberty is violated (reciprocity). 7. Implementation of restrictions should involve due process (procedural justice). 8. Democratic and transparent processes should guide policy making.	Utilitarianism (utility), libertarianism (liberty), and egalitarianism (equality). Clearly grounded in liberal theory and prioritizes the liberal dilemma of balancing protection of the public with liberty. Despite the argument that the approach is an integrated one that incorporates all three of the above ethical theories, the starting principles appear to give the highest priority to the value of liberty. Liberty is mentioned in 5 of the 8 principles. Consequentialism is reflected in the concern with health as an outcome and utilitarianism is evident in the use of measures such as DALYs.	Provides examples of situations in which he argues that most people would tend to prioritize each of the three values. There is only one principle that deals with equality in that strategies should be applied equitably, meaning in a way that is non-discriminatory although there is some emphasis in protecting the worst off in society. There is no focus, however, on health equity per se as an important moral aim of PH and the privileging of equity would depend on both the degree and nature of inequalities. Approaches for making trade-offs among his principles have not yet been developed – the author proposes and provides some plausible ideas about how this might be done. The framework contains both substantive and procedural values but does not distinguish them.
Upshur (2002). <i>Principles for the Justification of</i>	To provide a heuristic to guide PH decision making, for justifying PH decisions to reduce, control or eliminate risks	This is a “stepwise” framework in that it spells out a logical ordering of steps through which analysis proceeds (excerpted and adapted from Upshur, 2002, p. 102): 1. Harm principle – PH actions are justifiable to prevent harm to others, but not to prevent harm to oneself.	Utilitarian ethics and egalitarian liberalism. The consequentialist concern with protecting health is implicit rather than explicit. Liberty is emphasized in the	Provides a practical, easy to use heuristic for a limited range of PH interventions. It does not apply to health promotion, prevention, or screening. Seems to focus solely on PH action in which individual

Framework	Purpose	Description	Underlying philosophy or theory	Critique
<i>Public Health Intervention</i>	related primarily to environmental hazards and infectious diseases.	<ol style="list-style-type: none"> Least restrictive means – imposing the authority of the state should only occur in exceptional circumstances. More coercive methods should only be used when less coercive methods are not effective. Reciprocity principle – once PH action is warranted, the individual or community must be assisted in discharging their duties and be compensated for burdens imposed on them. Transparency principle – all appropriate stakeholders should be involved in decision making equally and uncoerced, with no political interference. 	<p>principle of least restrictive means. Reflects the primary liberal dilemma in PH – that is, striking a balance between protecting PH and ensuring individual freedoms.</p> <p>Liberalism is also apparent in privileging Mill's harm principle in the first step of the process.</p>	<p>liberties are curtailed to prevent harm.</p> <p>It includes three substantive principles and one procedural principle (transparency) but it does not distinguish these. Does not consider community and relational aspects of PH practice.</p> <p>Reflects a limited version of transparency because it makes no allowance for ensuring input from populations without power and resources to participate as stakeholders.</p>
Expansive Frameworks				
<p>Baylis et al. (2008).</p> <p><i>A Relational Account of Public Health Ethics</i></p>	<p>To provide a comprehensive framework that embraces the full spectrum of PH responsibilities based on a relational orientation that pays attention to the vulnerability of subpopulations lacking in social and economic power.</p> <p>The aims are: 1) to develop policies and programs aimed at a common interest in preventing illness, building physically and socially healthy</p>	<p>This framework is based on the concepts of (excerpted and adapted from Baylis et al., 2008, pp. 5-10):</p> <ol style="list-style-type: none"> Relational Personhood – in contrast to a liberal ideal of persons as independent, rational, self-interested and separate from others, persons are seen as thoroughly social beings who develop and become persons through engaging and interacting with others. Persons are socially, politically and economically situated and constituted by their relationships with others. Relational Autonomy – sees autonomy as the result of social relations rather than as an individual accomplishment. Choices of individuals depend on options available to them. We are not all equally situated with respect to opportunities to develop autonomy. Social Justice – draws on Powers & Faden's (2006) theory of social justice, which is congruent with notions of relational versus distributive justice. There are 6 distinct dimensions of well-being (one is health) that are interrelated and affect each other. Each is a lens for evaluating the impact of existing patterns of social organization on fairness and equity. Drawing on 	<p>Implicitly reflects a democratic communitarianism perspective by drawing on feminist relational theory and being congruent with some elements of civic republicanism. It also has consequentialist elements given explicit PH goals. This parallels Jennings' democratic communitarianism (2003) and is related to political theories of deliberative democracy.</p> <p>Draws on Powers and Faden's (2006) theory of social justice in PH, which in turn draws on Young's (1990) critical theory of justice that provides a critique of distributive justice.</p>	<p>More of a general high level theoretical framework than a practically grounded one.</p> <p>Major strength is its comprehensive focus on a broad range of ethical challenges in PH. Other ethics frameworks have been more limited in their focus (i.e., focusing on specific PH issues such as infectious diseases).</p> <p>A strength is that it begins to articulate clear principles that are congruent with a feminist relational as well as a communitarian perspective. It builds explicitly and extensively on the moral aims of PH and the moral values inherent in its practices. It does not engage at all in addressing the classic liberal dilemma of balancing liberty and PH action in that it sees the</p>

Framework	Purpose	Description	Underlying philosophy or theory	Critique
	<p>communities, and eliminating health inequities; 2) promoting the public interest and the common good (i.e., our shared interests in survival, safety, and security).</p> <p>Aimed at any and all PH issues.</p>	<p>the work of Young (1990), the authors suggest that social justice goes beyond concerns about the distribution of material goods, but also about access to “social goods such as rights, opportunities, power and self-respect” (p. 203).</p> <p>4. Relational Solidarity – goes beyond traditional notions of solidarity that locate it in self-interest rather than the communal good. In this view, they acknowledge that a relational conception of solidarity already exists within PH and recognizes important differences among people. It does not devolve to a conception of “us” and “them” but considers “us all,” and goes further in that it asks that we be aware of and respond to the particular needs of those people among us who are socially and economically disadvantaged.</p>		<p>interdependence of individual and society.</p> <p>The relational approach may provide a way of resolving polarized tensions in PH but a weakness is that how to do this is not spelled out. Overall, this framework requires greater elaboration for concrete application.</p>
<p>Tannahill (2008).</p> <p><i>Beyond Evidence – to Ethics: A Decision-Making Framework for Health Promotion, Public Health and Health Improvement</i></p>	<p>To provide an ethical “decision-making framework for health promotion, public health and health improvement that has a set of ethical principles at its pinnacle” (p. 380).</p> <p>Aimed at general health promotion and PH issues with a focus on health improvement.</p>	<p>Based on the premise that, while evidence of effectiveness is an important consideration in choosing health promotion/PH actions, ethics should be the starting place. The framework provides a guide for balancing issues of evidence, theory, and ethics in PH decision making. The ethical principles (with related/parallel terms reproduced in parentheses) are (excerpted and adapted from Tannahill, 2008, p. 387):</p> <ol style="list-style-type: none"> 1. <i>Do good</i> – relates to population health, not just individuals. Attention is given to the importance of the issue, cause, preventability, effectiveness, degree of likely benefit, feasibility, and reach (beneficence, effectiveness, quality, utility). 2. <i>Do not harm</i> – actions that help some may harm others so an acceptable balance is to be sought. Actions to limit harm should be identified (non-maleficance, safety, quality). 3. <i>Equity</i> – tackling health inequalities is high on the PH agenda, grounded in social and distributive justice. Unequally applied actions may produce equal health outcomes, and equity (fairness, equality, justice, cohesion, solidarity). 4. <i>Respect</i> – for individuals, families, communities, populations. Includes protection and promotion of self-respect (diversity, equity, autonomy, acceptability, consent, mutuality, self-esteem). 	<p>Communitarian and/or civic republican concepts are clearly reflected (e.g., population focus, mutuality, solidarity, community development, equity, social justice, citizenship, and social responsibility). Many principles are also consistent with liberalism but there is no mention of liberty, nor of balancing PH actions with individual liberty. In fact, the author argues that the principle of empowerment, when coupled with the principle of respect, is preferable to the principle of autonomy.</p> <p>Contractarian ethics is reflected in concepts of equality, distributive justice, respect, and openness.</p>	<p>This framework is much broader than many other PH ethics frameworks because its focus is on making decisions about any health promotion or PH action, not just about those that raise ethical challenges. It draws ethics, evidence and theory together to make those decisions, so its focus is positive.</p> <p>It draws on values and principles central to the moral commitments of PH and health promotion, rather than forcing general moral considerations or principles to fit the PH issue. It promotes a positive agenda for PH ethics.</p> <p>Principles include both substantive and procedural principles without distinguishing them. Does not really take context into account (Bull et al., 2013). The International Union for Health Promotion and Education (IUHPE) ethics framework, in development</p>

Framework	Purpose	Description	Underlying philosophy or theory	Critique
		<p>5. <i>Empowerment</i> – about helping individuals, families, communities and populations have more control. Involves promoting conditions and opportunities to have good health (autonomy, enabling, health literacy, self-efficacy, community development, solidarity, cohesion, mutuality).</p> <p>6. <i>Sustainability</i> – making sure that health actions are sustainable for as long as necessary; recognizing that sustainable health improvement requests conservation of resources and the environment (long-term effectiveness, environment, citizenship, accountability).</p> <p>7. <i>Social responsibility</i> – organizations must demonstrate this through their own actions. Social responsibility is important in improving population health and tackling health inequities (collectivism, solidarity, citizenship, environment, community, mutuality, accountability).</p> <p>8. <i>Participation</i> – a cardinal health promotion principle – doing with and not just for or to people. People should be involved as far as possible in defining their own health issues and solutions and taking action for their health (engagement, empowerment, citizenship, community development, mutuality, ownership, solidarity).</p> <p>9. <i>Openness</i> – explicitly applying the principles adds to openness. It is important to document judgments; it can help to foster open dialogue (transparency, engagement, mutuality, consent, consensus, trust, accountability).</p> <p>10. <i>Accountability</i> – being accountable for actions, outcomes, using resources appropriately, conserving the environment, and observing ethical principles (governance, effectiveness, quality, value for money, openness, trust, mutuality, environment).</p> <p>Applying the framework involves: first, identifying options for action and considering them against the ethical principles; using available evidence to inform judgments about the satisfaction of ethical principles; and taking theory into account along with evidence, or when there are gaps in the evidence.</p>	<p>There is a nod to utilitarianism through equating utility with the principle of beneficence (do good). The framework draws heavily on health promotion principles of empowerment, participation, sustainability, and equity, aligning it with critical PH ethics.</p>	<p>by the IUHPE Student and Early Career Network, draws on but expands Tannahill's framework to incorporate context (Ibid.)</p>

Framework	Purpose	Description	Underlying philosophy or theory	Critique
Mixed Frameworks				
<p>Kass (2001). <i>An Ethics Framework for Public Health</i></p>	<p>To provide “an analytic tool, designed to help public health professionals consider the ethics implications of proposed interventions, policy proposals, research initiatives, and programs” (p. 1777).</p> <p>The intent is to help PH professionals to recognize the various moral issues that arise and to think about ways to deal with them.</p> <p>Aimed at general PH issues.</p>	<p>An analytic tool and action guide organized in six steps, posed as questions, to be considered in assessing the ethics of a PH intervention (excerpted and adapted from Kass, 2001, pp. 1770, 1778-1779).</p> <ol style="list-style-type: none"> 1. <i>What are the PH goals of the proposed program?</i> These should be expressed in terms of health outcomes (i.e., health improvement, reduced morbidity and/or mortality). 2. <i>How effective is the program in achieving its stated goals?</i> Policies and programs should be based on the best evidence available about effectiveness. 3. <i>What are the known or potential burdens of the program?</i> Burdens fall into 3 categories of risks to: privacy and confidentiality, liberty and self-determination, and justice. 4. <i>Can burdens be minimized? Are there alternative approaches?</i> When harms are identified, efforts to minimize them are required. If two options exist, other things being equal, choose the one that imposes the least burden or risk to other moral claims. 5. <i>Is the program implemented fairly?</i> Burdens and benefits should be fairly distributed. Fairness is particularly important when restrictive measures are imposed. Unequal distribution of resources may actually be fair to reduce disparities in health status. 6. <i>How can the benefits and burdens of a program be fairly balanced?</i> Requires a judgment about whether and to what extent benefits outweigh burdens. Procedural justice comes into play here in making these difficult decisions. 	<p>This framework is consequentialist in that the PH intervention’s goals are health improvement using effective interventions to decrease morbidity and mortality (steps 1 and 2). There is also an element of utilitarianism reflected in the implicit principle of maximizing utility, in which benefits and burdens of PH actions must be balanced as reflected in the sixth step. A liberal perspective is evident in the focus on distributive justice (step 5). Kass is concerned with framing a positive agenda for PH and with reducing social inequities, moving this framework toward the expansive category. But a more traditional liberal perspective is reflected in the analysis of potential burdens and minimizing harm, which relate to Mill’s harm principle (steps 3 and 4).</p>	<p>Provides a broad set of considerations in making ethical decisions but does not get into the specifics of how to make particular decisions. There is, however, an emerging body of literature describing applications of this framework making it practical and accessible to users (e.g., Kass, 2005; Omer, 2013; Pederson et al., 2012; Public Health Ontario, 2012). This framework is important in being one of the first to promote a positive agenda for PH rather than focusing on PH applications as exceptions to the general moral principles of biomedical ethics. There is an explicit concern with social inequalities and promoting health equity, which several PH ethics frameworks do not consider.</p>
<p>Public Health Leadership Society (2002). <i>Principles of the Ethical</i></p>	<p>To clarify the distinctive elements of PH, including the underlying values, and to identify the ethical principles</p>	<p>Principles (excerpted from Public Health Leadership Society, 2002, p. 4):</p> <ol style="list-style-type: none"> 1. “Public health should address principally the fundamental causes of disease and requirements for health, aiming to prevent adverse health outcomes. 	<p>Draws from utilitarian, deontological, and communitarian perspectives.</p> <p>There is a consequentialist concern for addressing the fundamental causes of</p>	<p>Includes both substantive and procedural principles but without making the distinction. What is important is that these principles arise from the distinctive characteristics of PH and its values base. The principles may appear to privilege individual liberty over community, but the</p>

Framework	Purpose	Description	Underlying philosophy or theory	Critique
<p><i>Practice of Public Health</i></p>	<p>that follow from those elements.</p> <p>The focus of this code is on PH practice at the institutional level rather than the individual practitioner level.</p> <p>Aimed at general PH issues.</p>	<ol style="list-style-type: none"> 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 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." 	<p>disease, and an emphasis on effectiveness. Duty as an ethical motivation is reflected in several principles that may exemplify different philosophical perspectives. From a communitarian perspective, the community is the starting place in any trade-offs with individual rights. The focus on social justice, the social determinants of health, environmental concerns, interdependence of individuals, communities and environments, and emphasis on democratic processes reflect strong communitarian elements and moves this framework more toward the expansive category.</p>	<p>narrative in the original document (not included in description) makes it clear that community is central and the communitarian aims are more evident. This code of ethics provides more specific guidance than general principles do. The code of ethics lays out main commitments and orientation of PH, which can be useful in integrated practice settings where PH may be marginalized.</p> <p>The framework does not, however, provide specific guidance about how to resolve ethical disputes or choose among alternatives.</p>

Framework	Purpose	Description	Underlying philosophy or theory	Critique
<p>Thompson et al. (2006).</p> <p><i>Pandemic Influenza Preparedness: An Ethical Framework to Guide Decision-Making</i></p>	<p>To provide ethical guidance in pandemic planning for decision makers. It provides guidance on how to develop an ethical planning process and suggests substantive principles to inform decision making.</p> <p>Aimed at pandemic influenza planning and management.</p>	<p>This framework aims to provide decision makers with an introduction to ethical principles that are generally accepted. It has two parts:</p> <p>Part 1: Ethical processes or procedural ethics which are based on five principles (excerpted and adapted from Thompson et al., 2006, pp. 6-7):</p> <ol style="list-style-type: none"> 1. Accountability – mechanisms need to be in place to ensure ethical decision making throughout a crisis. 2. Inclusiveness – decision making should take stakeholder perspectives into account and provide opportunities for them to participate. 3. Openness and Transparency – decisions should be defensible to the public, the process open to scrutiny, and include prior development of a communication plan. 4. Reasonableness – decisions should be based on reasons stakeholders see as relevant, and made by credible and accountable individuals. 5. Responsiveness – during the unfolding crises, decisions should be revisited and potentially revised if necessary. <p>Part 2: Substantive principles – the value is described and the responsibilities of decision makers identified in relation to each value. In addition, a practical example of the application of each principle is provided.</p> <ol style="list-style-type: none"> 1. Duty to provide care – this is inherent to all health care professional codes of ethics. Health care workers (HCW) must balance demands from their professional role with competing demands in relation to their own health and that of their families and friends. Demands on HCW will overwhelm resources. 2. Equity – all things being equal, everyone has an equal right to receive care but tough decisions about what services will be provided need to be made. There is likely to be collateral damage but every effort should be made to preserve as much equity as possible. 3. Individual liberty – this is a pre-eminent value in health care in relation to autonomy. Normally, a 	<p>Mixed, but closer to the traditional end with a small nod toward expansive approaches through the principle of solidarity. However, solidarity is defined very differently than it is by Baylis et al. (2008) in their more relational approach. Solidarity here does not recognize the needs of the most disadvantaged in the population. Most of the principles clearly reflect the traditional balancing of public protection with individual liberties. The duty-to-care value reflects a duty-based or deontological perspective. The emphasis on equity relates only to access to care and not to the conditions necessary to promote health, which is emerging and an important moral aim in PH.</p>	<p>It is specific to the issue of pandemic planning and crisis management so may not be relevant to other PH issues.</p> <p>Equity principle does not address the fact that some groups are disproportionately disadvantaged in an epidemic. Although the intent is to address a PH problem, it is within the context of hospitals and institutional settings. This may explain its individualistic focus.</p>

Framework	Purpose	Description	Underlying philosophy or theory	Critique
		<p>balance is sought between respecting individual autonomy and preventing harms to others. Restrictions to liberty may be advisable in a crisis but should be necessary, proportional, and use least restrictive means.</p> <ol style="list-style-type: none"> 4. Privacy – in a PH crisis it may be necessary to override the right to privacy, but only information needed to deal with the crisis should be released and only if no less intrusive means can be found. Benefits must justify any anticipated harms. 5. Proportionality – restrictions to liberty should not go beyond what is necessary, and least coercive means should be used. Any coercive measures should only be used when other less restrictive measures have been ineffective. 6. Protection of the public from harm – this is a foundational principle of PH ethics. To ensure public safety it may be necessary to restrict service or access to service areas, or impose infection-control measures. Communicate with stakeholders about medical and moral reasons, the benefits of compliance, and the risks of non-compliance. 7. Reciprocity – support those who bear a disproportionate burden related to public protection and make efforts to minimize impacts. Ease the burden on those affected and ensure worker safety. 8. Solidarity – because of the interdependence of health systems, there is a need for solidarity across system and institutional boundaries. Requires a vision of both global and inter-institutional solidarity. Solidarity requires open and honest communication, open collaboration, sharing data, a spirit of common purpose, and the coordination of services and their delivery. 9. Stewardship – both individuals and institutions will have governance over scarce resources and difficult decisions about allocation will have to be made. There will be collateral damage so governance should be guided by the notion of stewardship, which requires trust, ethical behaviour and good decision making. 		

Framework	Purpose	Description	Underlying philosophy or theory	Critique
		10. Trust – an essential component of all relationships. In a PH crisis, the public may perceive PH measures as a betrayal of trust. Decision makers should take steps to build trust in advance of a crisis. Ensure decision-making processes are transparent and ethical.		

Appendix 2 Analysis of public health ethics frameworks using criteria of Kenny et al. (2006)

Framework	Criterion 1 – Addresses tension between public health and individual interests	Criterion 2 – Attends to concepts of common good and public interest	Criterion 3 – Clarifies relationship between public health & health care	Criterion 4 – Identifies central role of social determinants of health (SDOH)	Criterion 5 – Recognizes importance of reducing health inequities and attending to most vulnerable
Traditional Frameworks					
Childress et al. (2002). <i>Public Health Ethics: Mapping the Terrain</i>	Yes. Public health (PH) ethics provides a loose set of general moral considerations (called values, principles or rules) that may at times conflict with each other and may not be specific or concrete enough to justify action. Thus, five justificatory conditions are identified to guide decisions about when PH actions warrant overriding particular moral considerations such as liberty or justice.	No attention to notions of the common good. The public interest in preventing disease and promoting population health is implicitly considered in the general moral considerations of producing benefits and avoiding harms, but the harms specified are those related to violation of autonomy and liberty, thus not prioritizing the common good.	In part. This framework distinguishes between PH and medicine versus health care more globally, which of course goes beyond the practice of medicine.	No. Although the framework is context specific, which might allow for some consideration of social determinants, there is no explicit mention of the central role of SDOH, or of what kinds of contextual circumstances might allow for their consideration in ethical decision making.	No.
Selgelid (2009). <i>A Moderate Pluralist Approach to Public Health Policy and Ethics</i>	Yes. Argues that values of utility, liberty and equality are all legitimate, independent social values and that none has priority in all circumstances. This framework thus provides some guidance in making trade-offs among the values by identifying situations in which each value may be outweighed by the others.	No.	No.	No.	Selgelid identifies some circumstances in which equality, or attention to the needs of the worst off, would outweigh both liberty and utility. At the same time, he also identifies circumstances in which equality would be outweighed by both liberty and utility. This is in contrast to other PH frameworks in which equity is not generally outweighed by liberty, given the moral aim of PH to reduce health inequities.

Framework	Criterion 1 – Addresses tension between public health and individual interests	Criterion 2 – Attends to concepts of common good and public interest	Criterion 3 – Clarifies relationship between public health & health care	Criterion 4 – Identifies central role of social determinants of health (SDOH)	Criterion 5 – Recognizes importance of reducing health inequities and attending to most vulnerable
<p>Upshur (2002). <i>Principles for the Justification of Public Health Intervention</i></p>	<p>Yes. The main justificatory principle in this framework is the harm principle. It provides the foundation for PH ethics in giving initial justification for PH actions that will restrict individual liberty. Once action is justified on the basis of the harm principle, then PH actions must use the least restrictive means; society must support individuals in discharging their PH duties; and decisions must be made in a transparent manner.</p>	<p>No attention to the common good. As with Childress et al., discussed above.</p>	<p>Yes. Notes that PH differs considerably from clinical practice and that the concern for the population in PH is not analogous to the concern for the individual in clinical practice. Acknowledges that PH ethics reflects a fundamentally different world view.</p>	<p>No. Not explicitly within the principles identified. Upshur acknowledges that the focus of PH is on populations and communities, with consideration to broad social and environmental influences on health. However, he does not go on to make the link between this understanding and the framework’s principles. Although he states that PH ethics must “be able to reason through issues related to social, political and cultural contexts” (p. 101) there is no discussion about how this might be facilitated by application of the framework’s principles.</p>	<p>No. There is no mention of equity or justice in this framework.</p>
Expansive Frameworks					
<p>Baylis et al. (2008). <i>A Relational Account of Public Health Ethics</i></p>	<p>No. The relational perspective renders this tension possibly irrelevant. Whereas most frameworks see the starting place as the individual, in this framework the starting place is what is best for all of us together. There is a concern with balancing competing interests and objectives but this is not framed in the traditional way as defining</p>	<p>Yes. Explicitly aimed at promoting the public interest and the common good. Public interest is addressed through efforts at balancing competing interests through decision-making processes that are accessible, transparent, participatory and accountable. This is in</p>	<p>Yes. They argue that PH ethics frameworks should be grounded in the nature of PH, which they clearly distinguish from autonomy-driven bioethics and clinical care.</p>	<p>Yes. In its focus on relational social justice, this framework draws attention to “the context in which certain political and social policies and structures are created and maintained” (Kenny, Sherwin, & Baylis, 2010, p. 10), which is essentially a</p>	<p>Yes. PH founded on social justice is a central consideration. PH ethics is committed to addressing systematic patterns of disadvantage in health (Powers & Faden, 2006). As such, the framework prioritizes those who are disadvantaged with respect to health prospects.</p>

Framework	Criterion 1 – Addresses tension between public health and individual interests	Criterion 2 – Attends to concepts of common good and public interest	Criterion 3 – Clarifies relationship between public health & health care	Criterion 4 – Identifies central role of social determinants of health (SDOH)	Criterion 5 – Recognizes importance of reducing health inequities and attending to most vulnerable
	the conditions under which some values or interests might supersede others. There is no guidance provided on how to address situations in which there are competing interests.	service of the pursuit of shared interests in survival, security and safety (i.e., the common good). The common good is a central and foundational notion.		call to address the SDOH.	
Tannahill (2008). <i>Beyond Evidence – to Ethics: A Decision-Making Framework for Health Promotion, Public Health and Health Improvement</i>	In part. Provides a three-part framework that involves considerations of evidence, ethics, and theory. As such, any debates about what principles apply in a given set of circumstances must consider all three together. Decisions about what should be done are based on these considerations. Nonetheless, there is no explicit guidance on how trade-offs between competing principles should be made.	Yes, but this is not explicit; rather, it is implicit in the attention to principles of solidarity, social justice, distributive justice, equity and cohesion. The principle of social responsibility addresses concerns of community and mutuality that are indirectly related to the common good and the public interest.	Not specifically. Does emphasize health promotion but it could be in relation to PH or health care more broadly. No explicit distinction is made.	Implicitly in the emphasis on tackling unfair health inequalities and promoting social responsibility, but no mention is made of the need to attend to SDOH.	Yes. The importance of tackling unfair health inequalities is high on the health improvement agenda. Equity is addressed by pursuing equality of health outcomes by unequally applied actions, such as those directed toward disadvantaged groups and communities.
Mixed Frameworks					
Kass (2001). <i>An Ethics Framework for Public Health</i>	In part. Does not explicitly discuss ways of making trade-offs between competing principles but states that if burdens are identified, we must find ways of minimizing the burdens. Also states that if there are two options available to address a PH program, we are ethically bound to choose the option that poses the least risks to other values (e.g., liberty, privacy, justice). Acknowledging that some	Only partially. Acknowledges that through social actions, PH improves the well-being of communities and the population as a whole and in this way is concerned about the public interest. However, Kass does not explicitly identify the common good as an important aim of PH ethics; nor does she identify it as a starting	Yes. Argues that the contexts of bioethics are different than those of PH and that ethics for health care is not a good fit for PH. Health care gives priority to individual autonomy, which is not always appropriate for PH practice.	Yes. PH has a responsibility to reduce social inequalities including poverty, substandard housing conditions, lack of education, etc.	Yes. PH programs require the fair distribution of benefits and burdens, so that particular groups are not unfairly burdened or disadvantaged. PH has a responsibility to right existing injustices by, for example, advocating for better housing, income, or access to food.

Framework	Criterion 1 – Addresses tension between public health and individual interests	Criterion 2 – Attends to concepts of common good and public interest	Criterion 3 – Clarifies relationship between public health & health care	Criterion 4 – Identifies central role of social determinants of health (SDOH)	Criterion 5 – Recognizes importance of reducing health inequities and attending to most vulnerable
	<p>infringements on liberty are necessary and acceptable, Kass nonetheless suggests that disagreements about how to balance benefits and burdens must be settled through a system of fair process (i.e., procedural justice and engagement in the democratic process). In balancing interests, the greater the burden, the greater must be the PH benefit.</p>	<p>place for making ethical decisions in PH.</p>			
<p>Public Health Leadership Society (2002). <i>Principles of the Ethical Practice of Public Health</i></p>	<p>In part. Acknowledges the interdependence of individuals and their communities but states that PH should achieve the health of the community in ways that respect the rights of individuals. Argues that the need to exercise power to improve health at the same time as avoiding the abuse of power is at the crux of PH ethics. There is a perennial tension in PH to weigh the interests of the community and the individual, but there is no ethical principle that can provide a solution. Nonetheless, the community interest is the starting place.</p>	<p>Yes. Despite the lack of a principle to help address the tension in PH between the community and the individual, the community interest is the starting place for PH and its primary concern.</p>	<p>No. It does not do this explicitly but because the code states that it highlights the ethical principles that follow from the distinct characteristics of PH, it is implicitly distinguishing PH as unique.</p>	<p>Yes. Is concerned with social conditions and societal structures as underlying determinants of health, so addressing the fundamental causes of ill health is the focus of PH and is the first principle in the code.</p>	<p>Yes. PH advocates and works for disenfranchised community members and aims to ensure that the basic resources and conditions for health are available to all. PH has a particular interest in the underserved or marginalized.</p>

Framework	Criterion 1 – Addresses tension between public health and individual interests	Criterion 2 – Attends to concepts of common good and public interest	Criterion 3 – Clarifies relationship between public health & health care	Criterion 4 – Identifies central role of social determinants of health (SDOH)	Criterion 5 – Recognizes importance of reducing health inequities and attending to most vulnerable
Thompson et al. (2006). <i>Pandemic Influenza Preparedness: An Ethical Framework to Guide Decision-Making</i>	Yes. The framework does identify situations in which some ethical principles (particularly liberty) may be superseded by others. For example, it acknowledges that restrictions on individual liberty are justified to protect the public from harm, but that restrictions should: be proportional, be necessary, employ least restrictive means, and be applied fairly.	No. It does not specifically attend to the common good. It is concerned with the public interest in relation to the need for solidarity across systemic and institutional boundaries for the protection of the public from harm.	No. Not specifically, in part because it focuses on pandemic planning, which affects and involves both PH and the larger health care system.	No.	No. Although equity is one of the substantive principles of the framework, it does not refer to reducing avoidable and remediable differences in health between different populations. Rather, it emphasizes that all patients have an equal right to receive needed health care.

Appendix 3 Examples of public health ethics framework applications

There are limited published applications of public health ethics frameworks in the literature. However, the following references describe practice applications of a few public health ethics frameworks. More practical applications of these and other frameworks to a wider range of public health issues would greatly add to the current literature.

Canadian Nurses Association. (2006). *Ethics in practice for registered nurses*. Ottawa: Author. Retrieved from: http://cna-aicc.ca/~media/cna/page-content/pdf-en/ethics_in_practice_jan_06_e.pdf

This document describes the application of both the Canadian Nurses Association (CNA) Code of Ethics and Upshur's public health ethics framework (see Appendix 1) to two public health ethical issues that public health practitioners (in this case nurses) might confront in their practice: 1) a homeless man with tuberculosis refuses to go to the hospital for treatment; and 2) whether to use population-focused versus individually-focused tobacco use prevention strategies. Each case is discussed first in relation to how the CNA Code of Ethics applies in both situations and then with respect to which of Upshur's four principles is relevant to the situation and how these are applied to making decisions.

Kass, N. E. (2005). An ethics framework for public health and avian influenza pandemic preparedness. *Yale Journal of Biology and Medicine*, 78, 235–250. Retrieved from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2259154/pdf/17132331.pdf>

In this paper, Kass describes her public health ethics framework (see Appendix 1) and applies it to the problem of avian influenza pandemic preparedness. This framework is a six-part analytic tool that poses six questions to be answered in making decisions about a particular public health issue.

Omer, S. B. (2013). Applying Kass's public health ethics framework to mandatory health care worker immunization: The devil is in the details. *American Journal of Bioethics*, 13(9), 55–57. DOI: 10.1080/15265161.2013.825122. Retrieved from: <http://dx.doi.org/10.1080/15265161.2013.825122>

The author applies Kass's framework to the issue of the ethics of mandatory health care worker immunizations. He works through each of the six questions in the framework in relation to ethical concerns about mandatory immunization policies to make decisions that address procedural justice.

Paquin, L. J. (2007). Was WHO SARS-related travel advisory for Toronto ethical? *Canadian Journal of Public Health*, 98(3), 209–211. Retrieved from: <http://journal.cpha.ca/index.php/cjph/article/download/814/814>

In this article, the author answers the question posed in the title by applying Kass's six-step framework for public health ethics. Based on this analysis, two of Kass's questions raise concerns about the ethics of the travel advisory: How effective was the program in achieving its goals? How can the benefits and burdens be fairly balanced?

Thompson, A. K., Faith, K., Gibson, J. L., & Upshur, R. E. G. (2006). Pandemic influenza preparedness: An ethical framework to guide decision-making. *BMC Medical Ethics*, 7(12). DOI: 10.1186/1472-6939-7-12. Retrieved from: <http://www.biomedcentral.com/1472-6939/7/12>

This framework was developed and validated with stakeholder consultation to guide decision making in pandemic preparedness planning. The framework is described in Appendix 1 and takes into consideration both substantive and procedural principles. It is based on the assumption that pandemic planning should be "guided by ethical decision-making processes" (procedural principles) and "informed by ethical values" (substantive principles) (p. 4). The authors identify ten substantive values or principles and five procedural principles that are applied to several issues that might emerge in pandemic planning.

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