

Chapter 1

Defining Public Health Ethics for Practitioners



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Abstract This chapter stresses the collective nature of public health, defines public health ethics, and relates the latter to narrative ethics. The chapter offers four ways to define public health ethics; namely, through its problems, practice, procedure, and principles. Every area of Public Health Service poses ethics problems that involves either training issues, compliance with ethical rules and standards, or a utilitarian weighing of courses of action. The practice of public health ethics not only analyzes and addresses emergent ethical problems but also integrates ethics upstream into the design of public health programs. A public health ethics procedure provides a systematic framework for analyzing ethical problems, for designing and evaluating interventions, and for justifying one's decisions. The chapter explores the core principles found in the American Public Health Association's 2019 Public Health Code of Ethics. This Code reflects public health's emphasis on health equity, inclusiveness, and engagement with marginalized communities. Accordingly, the subsequent discussion calls attention to an approach that advocates empathic listening to community members, namely, Human-centered design. The chapter closes by suggesting that narrative ethics can improve the capacity of practitioners to empathically hear the voices and stories of community members and thereby improve public health practice.

Keywords Ethical analysis · Ethical principles · Public health code of ethics · Public health ethics · Utilitarianism · Deontology · Empathic listening · Human-centered design · Equity

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© The Author(s) 2022
D. H. Barrett et al. (eds.), *Narrative Ethics in Public Health: The Value of Stories*, Public Health Ethics Analysis 7,
https://doi.org/10.1007/978-3-030-92080-7_1

In introducing a field, abstract or essential definitions that lack a broader context often convey little meaning. To avoid that shortcoming, this introductory chapter provides a richer, multifaceted definition of public health ethics. Ethicists may find the distinctions drawn useful but miss the philosophic argumentation found in most ethics texts. That is a feature not an oversight, as this introduction primarily targets future and current public health practitioners. Its immediate aim is to practically orient practitioners to ethical considerations in public health. Its more specific aim is to encourage practitioners to learn how to empathically listen to, and learn from, members of the communities they serve. For practitioners trained in scientific methodology and justly proud of their discipline, mastering the art of empathic listening may require some retooling. Yet it is no more challenging than physicians' efforts to embrace the humbler skill of effective bedside manner. It is a skill proven to improve patient satisfaction and outcomes (Remein et al. 2020). Our hypothesis is that the capacity to empathically listen to community members will lead to better public health interventions. Hopefully, the stories in this volume will contribute to that aim.

Many definitions of public health exist, but the U.S. Institute of Medicine (IOM) offers a concise one suited to the topic of public health ethics. "Public health is what we, as a society, do collectively to assure conditions for people to be healthy" (IOM 1988, 1). Public health, then, entails concerted action to create the means or the foundation to secure the health of the entire population. This definition implies that securing the entire population's health does not depend primarily on individuals acting independently. This implication seems counterintuitive to many people. They believe that were everyone to adopt a healthy lifestyle and seek appropriate medical care, the entire society would be healthy. However, not everyone has access to affordable medical care. Moreover, healthy lifestyle and medical care account for only a fraction of the factors that impact a person's health. A far larger share of health outcome depends on social determinants of health, especially wealth, educational level, social class, and race/ethnicity (Marmot 2007). Those who stand higher on the social ladder generally enjoy better health, while those who stand lower display comparatively worse health. Health differences that reflect natural variability are ethically neutral, but others reflect underlying health inequities. According to the World Health Organization (WHO), health inequities denote "health differences which are socially produced; systematic in their distribution across the population; and unfair" (WHO 2007, 7). Being socially produced, these differences are actionable and unfair, thus summoning our sense of justice to seek redress. This brief account of IOM's definition of public health explains two central features of public health ethics. First, in contrast to the attention the individual patient receives in medical ethics, public health ethics emphasizes collective action to address population or community health. Second, this population-community focus commits public health ethics to advancing social justice, for example, by addressing health inequities in underserved communities.

Various definitions of public health ethics likewise exist, the following one from my home agency, the Centers for Disease Control and Prevention (CDC). "Public health ethics involves a systematic process to clarify, prioritize, and justify possible courses of public health action based on ethical principles, values and beliefs of

stakeholders, and scientific and other information” (CDC 2017). To elaborate, public health officials must respond in a timely fashion to ethical *problems* that arise in their daily activities. A timely, consistent, and effective response to these problems results from integrating public health ethics into *practice*. Good ethical practice in public health must begin in the planning and design stage. It entails a *procedure* to analyze ethical problems, evaluate alternative courses of action, and justify what practitioners have deemed optimal for a community. Evaluation and justification rely on ethical *principles*, weighing them in relation to scientific evidence, contextual factors, and the input of stakeholders and community members. What follows will further define public health ethics with respect to its the problems, practice, procedure and principles.

Public Health Ethics Problems

Listing and categorizing the problems that arise within a discipline provides a good, practical way to characterize it. Most ethical problems in a practical discipline arise in relation to its goals, which its activities operationalize. Public health goals relate directly or indirectly to advancing human well-being not only by promoting health, preventing disease, and protecting the public but also by improving social conditions (American Public Health Association (APHA) 2019). While performing any public health activity that advances these goals, practitioners may encounter ethical problems.

An itemization of the main public health activities appears below in the 10 Essential Public Health Services (10 Essential Public Health Services Futures Initiative Task Force 2020). To emphasize that the services form an iterative cycle of assessment, policy development and assurance, the 10 Essential Services are graphically configured within a wheel with a large hub in the center. Originally, “research” occupied the hub position to underscore its cross-cutting importance within each of the activities. In the 2020 version of the wheel, “equity” has replaced “research” at the hub (Public Health National Center for Innovation 2020). That replacement reflects both the priority public health gives to equity issues today and their cross-cutting relevance to every facet of public health activity. Following each of the 10 essential services listed below is an example (*in italicized text*) of a corresponding ethical problem or issue that could arise.

1. Assess and monitor population health status, factors that influence health, and community needs and assets (*Managing surveillance data to protect privacy*).
2. Investigate, diagnose, and address health problems and hazards affecting the population (*Fairly distributing among groups the burdens and benefits of public health actions*).
3. Communicate effectively to inform and educate people about health, factors that influence it, and how to improve it (*Avoiding stigmatizing racial/ethnic groups when messaging about diseases originating outside the country*).

4. Strengthen, support, and mobilize communities and partnerships to improve health (*Building and maintaining trust with communities*).
5. Create, champion, and implement policies, plans, and laws that impact health (*Getting community input and buy-in for policies and plans affecting a community*).
6. Utilize legal and regulatory actions designed to improve and protect the public's health (*Imposing liberty-limiting measures such as quarantine to protect the public*).
7. Assure an effective system that enables equitable access to the individual services and care needed to be healthy (*Protecting vulnerable populations and advancing health equity*).
8. Build and support a diverse and skilled public health workforce (*Ensuring that public health staff and practitioners are properly trained*).
9. Improve and innovate public health functions through ongoing evaluation, research, and continuous quality improvement (*Protecting human subjects in research*).
10. Build and maintain a strong organizational infrastructure for public health (*Allocating resources to programs efficiently and fairly*).

These 10 essential services correspond with 10 of the domains identified by Public Health Accreditation Board (PHAB 2013). In addition, PHAB has identified two additional functional domains. As with the essential services, corresponding examples of ethical issues or problems that could arise follow (*in italics*) each functional domain.

1. Maintain Administrative and Management Capacity (*Avoid conflicts of interest when accepting donations from outside entities*).
2. Maintain Capacity to Engage the Public Health Governing Entity (*Negotiating the political context*).

PHAB has linked all 12 domains to performance standards and measures that serve as a basis for accrediting health departments (PHAB 2013). More to the point, the APHA Code of Ethics provides specific ethical guidance for all 12 of these functional domains (APHA 2019). This guidance is useful for practitioners, who need to identify what ethical problems occur in their area(s) of activity and how to address them.

It is equally important for practitioners to be aware not only that ethical problems vary with the area of activity but also that there are different modes of ethical thinking. The three most common and basic ethical modes are virtue ethics, deontology, and utilitarian ethics. We can distinguish each mode with an image that represents its focus: for virtue ethics, a *compass* representing the practitioner's ethical orientation; for deontology, a *fence* representing rules that limit actions; for utilitarian ethics, a *scale* representing the weighing of competing ethical considerations. Linking a problem to an ethical mode of thinking helps to identify where one needs to focus efforts to address the problem. Some problems may implicate more than one mode, but often a specific mode offers the best strategy for addressing a problem. The next section will explore how these modes play out in practice.

Public Health Ethics Practice

A second way to define public health ethics relates to how officials integrate it into routine practice. Many practitioners view ethics as an afterthought, part of review processes that occurs after planning and development but before implementation. They show interest in ethics only in reaction to a sudden, disruptive ethical conflict. Others fail to recognize the ethical dimension in such conflicts, treating them only as difficult practical problems. This failure precludes taking advantage of readily available ethical resources to address the conflict more effectively. Proactively ensuring that ethics informs interventions before implementation can prevent some ethical problems from occurring. For public health ethics to be more useful, health departments need to integrate it into daily practice.

There are several key aspects to integrating public health ethics into daily practice. First, practitioners need to avail themselves of some of the public health ethics training tools and resources the preface mentions. Second, health departments can establish a formal process to respond to sudden and disruptive ethical dilemmas and conflicts. Tracking ethical problems and establishing a process to respond to them are now accreditation requirements for state and local health departments in the United States (PHAB 2013). Third, instead of just reacting to ethical disruptions, more proactive integration requires that public health ethics be ‘upstreamed’ by adopting a public-health-ethics-in-all-policies approach. This entails incorporating public health values and principles as well as stakeholder/community input into the design phase of practice. Fourth, integration requires practical know-how in dealing with the different types of ethical problems: virtue ethics (compass), deontology (fence), or utilitarian ethics (scales). These three modes exhibit a temporal aspect. The practice of virtue ethics prepares practitioners *ahead of time* to address ethical problems, deontology identifies problems *inherent in the actual activities* themselves, while utilitarian ethics assesses the beneficial and harmful *results of actions*.

Virtue ethics anticipates ethics problems by ensuring the availability of good people who are trained to address them. Common virtues, like honesty and reliability, are good habits acquired through practice that form the basis of good character and make us good citizens. They establish our moral compass, aka conscience, which enables us to distinguish right from wrong, esteem worthy values, and guide our decisions. We bring this moral compass with us 24/7 to ethical problem that arise in our daily lives.

Virtue ethics also plays a role in professional training. Training in the relevant knowledge, skills, and values of a discipline serves to define profession-specific duties and responsibilities. It also establishes the professional ethos and orientation that practitioners bring to the table prior to addressing ethical and practical problems. Acquiring the knowledge, skills, and ability to function competently as, say, an epidemiologist forms the core of one’s professional duties and responsibilities as an epidemiologist. When staff lack requisite trainings, holding them accountable for failure to perform professional duties becomes problematic. A basic ethical challenge for public health leadership, then, is to ensure a workforce trained and

competent in the skills and abilities needed to be a successful practitioner in the field. Problems in this area typically occur when adding staff, deploying them to unfamiliar situations, or initiating new functions and programs.

In public health, virtue ethics is useful for thinking about how to develop skills and foster a professional ethos regarding professional responsibilities. Social justice advocates have also employed the idea of virtue or functionality in the “capabilities approach” (Sen 2010). This approach holds government responsible for providing citizens with basic capabilities such as an education that allows them to maintain their health and flourish. Virtue ethics, however, does not offer a procedure for analyzing many ethical problems or dealing with the kind of specific ethical dilemmas that suddenly arise in practice and demand immediate resolution. As a result, ethical consults or deliberations that do not involve professional training seldom invoke virtue ethics. However, given the U.S. government’s current prioritizing of health equity, the capabilities approach may gain increasing attention going forward.

A second mode to address ethical problems is deontology, the study of duties, which are ethical or legal rules governing behavior. The Hippocratic Oath’s “do good” and “do no harm” illustrate two central features of deontological rules. First, these rules of duty express imperatives or commands (commandments in a religious context) we are obligated to obey. Second, they can be positive or negative. Most rules command or obligate us *not* to trespass upon some limit or parameter, which explains why the fence serves to represent this type of problem. Positive commands like “do good,” “honor thy parents” or “promote health,” however, are aspirational and enjoin us to strive toward some desirable goal in a way not bound by specific limits.

The fence image also explains why deontological problems in public health often involve professional misconduct or noncompliance: these involve transgression of rules or regulations. Determining misconduct or noncompliance is a straightforward procedure *in principle* that mainly involves two things. Determinations compare (1) an operative rule or regulation against (2) the behavior of the individual practitioner or an intended public health action. *In practice*, rules may be vague or the behavior in question may be borderline or “pushing the envelope.” For this reason, someone making determinations requires expertise in interpreting the scope of the rule and usually some familiarity with the area of activity at issue. Determinations, then, entail ascertaining the scope of a rule and assessing whether an action or behavior falls under or oversteps that scope. Organizations often hire lawyers as ‘ethicists,’ i.e., compliance officers, because they are adept at interpreting and applying rules and standards.

Ethical rules often inform the content or aims of laws and regulations but differ from them in a decisive way. Whereas ethics represents the sphere of voluntary discretionary activity, laws enacted by legitimate authorities are enforceable. However, once an ethical rule becomes enforceable under pain of punishment or penalty, it formally functions as a law, even though we still speak of ethics violations. Voluntary rules are like hedgerows, which guide us along in the right direction. Most people observe voluntary rules, but some rules need to be legally enforced. Violating, say, traffic signals would be so dangerous or disruptive that

compliance cannot be left up to individual prerogative. Laws establish order, but their rigidity allow for less discretion and often create a regulatory burden. In unusual legal cases or those involving mitigating circumstance, rigidity can make it difficult to arrive at a satisfactory ruling. Conversely, discretionary rules allow for more flexibility but could also result in greater variability in rulings, while lack of enforcement mechanisms can lead to increased noncompliance.

The rules or guidance documents governing an area of public health practice can be voluntary and discretionary, regulatory and enforceable, or lacking altogether. The status or availability of guidance, especially ethics guidance, has a bearing on how one addresses the ethical problems that arise in an area. Where available, one should consult ethics guidance documents, but they are unavailable for many specific areas of public health practice. In such cases, practitioners may need to seek or conduct an ethics consult that employs the kind of deliberative process discussed below. For emergency response activities, many ethics guidance documents are available which generally are voluntary or discretionary in nature. This gives practitioners greater latitude in making decisions in what are often chaotic circumstances. Ethical rules governing surveillance activities are generally discretionary; perhaps for that reason fewer guidance documents are available, though the WHO's surveillance guidelines are thoroughgoing (WHO 2017). The rules governing research ethics committees, designed primarily to protect human research subjects, generally follow the International Ethical Guidelines for Health-related Research Involving Humans. These guidelines, now in their 4th edition, have been published since 1982 by The Council for International Organizations of Medical Sciences (CIOMS) under the auspices of WHO (CIOMS 2016). The guidelines, though discretionary, distinguish between "must" and "should", the former being "used to attach greater moral weight to requirement when compared to "should" (CIOMS 2016, xii). In the United States research ethics guidance is based on the Belmont ethical principles—beneficence (and nonmaleficence), autonomy, and justice (U.S. Department of Health, Education, and Welfare [USDHEW] 1979). By contrast with the CIOMS guidelines, these rules comprise an enforceable section, 45 CFR 46, of the U.S. Code of Federal Regulations (USDHEW 2018).

The U.S. regulations apply to all federally funded human subjects research, not just to biomedical research as do the CIOMS guidelines. In the social sciences, much of the research that fell under the purview of these regulations posed minimal harm to subjects, such as research that mainly involved interviews. Many researchers considered the harm posed to such subjects disproportionate to the amount of regulatory burden the regulations imposed on researchers. In response to this and other complaints, policy makers recently revised the rules to expedite the review process especially for research that posed minimal danger (USDHEW 2018).

Most decisions about research protocols, especially those posing minimal danger, amount to straightforward determinations of compliance. More high stakes research projects can pose more danger to subjects while potentially providing more valuable information. The ethics committee discussions for such projects more closely resembles the kind of deliberations discussed below that must weigh competing factors in making decisions.

An ethics violation resulting from noncompliance differs decidedly from an ethical conflict, which requires a different remedy. For the former, the remedies include punishment, changing the offending behavior to become compliant, or preventing it altogether by conducting a prior compliance determination. Such determinations basically distinguish good or acceptable behavior from bad, unacceptable behavior. By contrast, an ethical conflict does not imply wrongdoing. An ethical conflict results from competing—sometimes diametrically opposed—views of what is most important, beneficial, or effective. These varying views usually correlate with the values, beliefs, and interests of stakeholders, including public health stakeholders. Remedying a conflict, then, does not replace bad behavior with good but, rather, involves prioritizing and selecting from amongst competing views of the good. To optimally resolve a conflict in public health, practitioners need to weigh and balance competing or opposed elements. They must do so with an eye toward the optimal result in the context of a community and relevant stakeholders. In public health, the optimal result typically involves designing an intervention that will result in maximum health benefits for a population, also factoring in the harms caused.

The idea of maximizing health benefits brings us to the third basic ethical mode, namely, utilitarianism, a form of consequentialist ethics. Consequentialism judges the ethicality of an action not by its compliance with an ethical rule but according to its good or bad consequences or results. Two distinguishing features of utilitarianism that harmonize well with public health approaches are its egalitarian and population perspective. Utilitarianism does not privilege particular individuals but, rather, looks at the greatest *net* good or happiness for the greatest number of people. The net good (in public health, the net health benefit) is that which remains after bad consequences are subtracted, such as higher costs, increased morbidity, or infringements on liberty. This utilitarian procedure of quantifying results by calculating net benefits over disadvantages aligns well with epidemiological science. Public health practitioners are employing utilitarian approaches when they conduct cost-benefit or risk benefit analyses of future public health programs or assess the health impact of existing programs. Utilitarianism, then, is a maximizing approach that bases decisions on which course of action provides the optimal net benefit for a population among the available alternatives.

The utilitarian approach works best where researchers or practitioners can readily quantify impacts; for example, in terms of financial costs, reduction in the prevalence of disease, or the number of lives saved. It becomes more difficult to weigh net benefits over disadvantages where the operative terms are values that lend themselves less readily to quantification, such as liberty infringement or community trust. A utilitarian approach focused on maximizing, say, the number of lives saved or vaccines administered can also run into problems regarding an equitable distribution of benefits. For example, hard-to-reach groups or those with more comorbidities may require more resources or personnel to reach or to treat compared to the general population. If resources and personnel are limited and there are time constraints, practitioners will serve a greater number of people by focusing on the general population rather than on groups that are hard-to-reach or that have more co-morbidities. But such an approach could lead to an inequitable distribution of

services and increase health disparities in minority or underserved populations. Such problems in weighing values or achieving equity will require ethical deliberations to adjudicate.

Public Health Ethics Procedure

Having an established public health ethics procedure or framework in place allows practitioners to tackle problems consistently and methodically rather than haphazardly. Suddenly emerging ethical problems are disruptive and can cause consternation or paralysis. An ethics procedure is not a magic bullet; it cannot make tough ethical decisions easy, but it nevertheless offers advantages. It averts the likelihood practitioners will push the panic button, allowing them to arrive calmly at a resolution by following a series of procedural steps. It also allows practitioners to utilize ethics resources that others have found useful in similar situations. Finally, practitioners can make tough ethical decisions more confidently knowing they have followed standard practice in the field.

Procedures or frameworks to address public health ethics problems display large overlap but also some variation depending on the problems addressed or on which ethics principles one prioritizes (Lee 2012). The 3-step procedure we advance below has proven useful over time for addressing a wide range of ethical problems in public health (Bernheim et al. 2007). The introductory chapter of our open-source public health ethics casebook provides an extended example of applying the procedure to a concrete ethical problem (Barrett et al. 2016).

Step 1: Analyze the Problem

- Public health goals?
- Moral claims of the stakeholders?
- Risks and harms of concern?
- Is the source or scope of legal authority in question?
- Are precedent cases relevant?
- Do professional codes of ethics provide guidance?

Ethical analysis of a problem does not take place in a theoretical vacuum; relevant scientific evidence and circumstantial facts should inform it throughout. Specific public health goals will reflect broader public health objectives and values, such as promoting health, acquiring scientific evidence, or building trust with communities. Practitioners must weigh these goals in relation to the moral claims, that is, the rights, interests, or values of community members and other stakeholders. Both the public health goals and stakeholder claims will indicate the benefits or advantages that parties hope to gain from any proposed intervention. Against these

advantages, practitioners must weigh the risks and harms of concern, that is, the disadvantages of any proposed action. Analyzing the advantages and disadvantages of all relevant parties sets the stage for a utilitarian calculus that will assess the maximal net advantage that a proposed intervention might realize for a population or community.

Considering the source and scope of legal authority has several uses. It provides legal justification for proposed actions. It also can indicate what practitioners may do as well as the constraints on their action. This point in the deliberation is the time to consider any compliance issues that might constrain options. It is worth noting that other constraints, such as technical, budgetary, or political constraints can also limit action. Determining constraints in advance can clarify and simplify decision making by eliminating unfeasible alternatives. Ethics is about voluntary activity which demands that we be clear minded about the scope of our discretionary power.

Considering relevant precedents and ethics guidance, particularly professional codes of ethics, allows practitioners to utilize ethics responses or resources that others have developed. The more a current situation resembles a precedent case, the more readily it helps practitioners to make or justify a course of action. However, a precedent does not bind current or future responses. It may instead reflect an outdated prioritization of values or reveal how a current situation differs from the precedent case in some crucial respect. Noting such differences can help practitioners develop more nuanced responses that better reflect particular circumstances, community values or public health priorities.

Step 2: Design and Evaluate Alternative Courses of Public Health Action

Typically, several alternate ways to approach a problem exist. So, it is generally helpful to evaluate and compare alternative courses of action to determine the best approach in a given context. Approaches can vary not only technically and in cost, duration and intensity, and but also with respect to the goals, values, and interests an approach prioritizes. Ethical considerations add features to the many variables practitioners need to factor into planning and design, but do not fundamentally alter the process. The original title for Step 2 has been modified by adding the words, “Design and.” Design is a creative process not usually associated with ethical analysis, evaluation, or justification but also not foreign to it.

The upstreaming of ethics into design first came about in response to engineers. In their design stage, engineers frequently work with budgetary, building code, or architectural constraints, incorporating them into project design. Incorporating ethical constraints upstream during design, they argued, would be more efficient than retrofitting a project. Retrofitting is more expensive and time consuming than designing in constraints from the outset and often adversely affects the quality of the original design. Similarly, practitioners might think of stakeholder input and

community values as constraints that need to be designed into projects. Projects so designed will more likely resonate with communities and be less likely to create resistance that would result in the need for design modification.

Where possible, practitioners should evaluate different designs and alternative courses of action according to the following ethical principles.

- Utility
- Justice
- Respect for individual and community interests and values

Utility refers to the net balance of benefits or advantages over harms or disadvantages. Lower effectiveness or reach, greater costs or harms, and more liberty restrictions comprise some of the chief comparative disadvantages of different public health actions. Conflict with community values and the resultant tension or loss of community trust also count as significant disadvantages. A course of action can resonate with one community's values and be cost effective but not with another community, due to local values and conditions. Practitioners, then, cannot rely solely on cost or scientific/technical considerations in evaluating a course of action. Local conditions and community values also need to be prioritized and weighed in making decisions.

Justice has a range of meanings both in general and in public health settings. Its most basic sense is *just deserts*, namely, that persons receive what they deserve. This principle recognizes the equal and fundamental dignity of all persons, which implies equal access to public health services. It also implies reciprocity which compensates members of the public for burdens that a public health action causes. *Procedural justice* or due process requires that stakeholders have an opportunity to participate in decisions regarding public health interventions that impact them. Because *distributive justice* involves a wider nexus of individuals and groups, it has the most relevance to public health. It requires that the benefits and burdens of public health interventions be distributed fairly among impacted groups. Health equity entails a fair distribution of health resources, where everyone has equal access to health services and to the social conditions that foster health. Achieving health equity requires not only avoiding interventions that exacerbate health inequities but also designing interventions that reduce health inequity. At the behavioral level, interventions intended to benefit all sometimes exacerbate health disparities by only benefitting the already well-off who have the knowledge, time and resources to take advantage of them. Justice would demand that interventions be redesigned so that all could benefit or that outreach efforts target those with lower health literacy and fewer resources. At a social level, health equity ultimately demands that society take steps to restructure society and institutions to prevent inequities from occurring. Given the relevance of justice to public health practice at so many levels and our growing awareness of the depth and pervasiveness of health disparities, practitioners increasingly are adopting an equity lens in public health planning and practice.

Respecting individual and community interests and values means that practitioners and researchers avoid implementing community interventions and research that clash with existing civic roles or community values and wishes. Showing

respect is crucial for building and maintaining trust with individuals and communities. Respect should also extend to giving community members a voice in what happens in their community. It may ultimately require that practitioners design or redesign interventions that community input informs.

Step 3. Provide Justification for a Particular Public Health Action

- Effectiveness: Is the public health goal likely to be accomplished?
- Proportionality: Will the probable benefits of the action outweigh the infringed moral considerations?
- Necessity: Is overriding the conflicting ethical claims necessary to achieve the public health goal?
- Least infringement: Is the action the least restrictive and least intrusive?
- Public justification: Can public health agents offer public justification that citizens, and in particular those most affected, could find acceptable in principle?

To justify an action might only involve explaining the rationale behind it but it can also mean having to defend it. Whether one finds oneself explaining or defending an action depends as much on the audience as it does on the nature of the action. In the United States, individual liberty is a presumptive value in discussions of public policy. That partiality to individual liberty puts the onus on the party who infringes on liberty to vigorously defend its action. Conversely, in countries where communitarian values are presumptive, the onus would be on those who defend libertarian values. Public health's mission involves collective action for the good of the entire population or community. In a libertarian setting, this communitarian orientation of public health regularly puts it at odds with political tradition and public sentiment. Public health officials therefore should be prepared to defend their actions against libertarian objections. Whereas the first and last questions above apply equally to libertarian or communitarian settings, the middle questions are especially relevant to libertarian settings. Designing and evaluating a public health action for which affirmative answers could be given to these middle questions might obviate libertarian objections to it. If not, being able to affirmatively answer these questions could at least serve as a defense against charges of liberty infringement or paternalistic overreach.

Not all public health actions that demand justification infringe on liberty or raise the specter of government overreach. The need to justify an action can result simply from the expectation of transparency on the part of the public. Lack of transparency can create suspicion and undermine trust. Routinely explaining the rationale for important official actions, then, makes for good communication strategy that can foster trust with the community.

Controversial public health proposals may also require justification; for example, establishing a Syringe Service Program (SSP) in a community. The last bullet point

above, about public justification, applies to controversial proposals and suggests a standard public justifications must meet. Namely, public justifications must be acceptable in principle to stakeholders whom an action affects most, who often are those most adversely impacted. In the example of SSPs, the most deeply affected could be community members concerned that an SSP would increase crime and expose their children to people with opioid use disorders. Persuading community members to accept an SSP in their neighborhood would likely require more than one-way scientific messaging. It would probably require two-way dialogue that goes beyond explaining an action and answering questions. Genuine dialogue requires listening and giving voice to those impacted. Giving voice to those impacted gives them a stake in the outcome of the discussion and gets their buy-in. Buy-in does not imply they agree with the outcome or welcome it, but only that they feel ownership through their participation in the discussion. This ownership allows them to more readily accept an outcome even when it adversely affects them.

This dialogical process works best when public health practitioners make genuine efforts to incorporate alternatives, trade-offs or compromises in response to stakeholder input. For example, residents might accept the rationale for an SSP but nevertheless object to locating it in a residential neighborhood. Further discussion might elicit creative alternatives from community members. These could include locating the SSP in an area zoned for commercial use or in a moving van located at a designated place at designated times. Stakeholder suggestions are often unfeasible in whole or in part. Nevertheless, eliciting them, seriously considering them, and explaining why they cannot be incorporated can go a long way toward gaining acceptance for even a controversial public health action. Trade-offs and compromises are ways of balancing or adjudicating competing claims. This process of balancing claims more closely resembles the art of negotiation than the maximizing calculus of utilitarianism. Nevertheless, if in designing a course of action one can find the right balance or the “sweet spot” between competing claims, the intervention in question more likely will be the alternative that achieves optimal impact.

Public Health Ethics Principles

Introductory textbooks typically define a field with respect to its basic principles. Some of these it may share with allied fields, but other more specific principles distinguish it from other fields. Although public health theorists and practitioners have proposed diverse principles to guide public health ethics, there is considerable overlap in what they deem foundational (Lee 2012). Along with medical ethics, research ethics and bioethics, public health ethics shares the Belmont ethical principles of beneficence and nonmaleficence, respect for persons, and justice (USDHEW 1979). These principles focus on benefitting, not harming, individuals, respecting their privacy and autonomy, and ensuring their equal access to clinical trials and to care. Recognizing the insufficiency of an individual focus, pioneers in public health ethics oriented the emerging field around the ethical claims of

communities. Public health ethics focuses on the common good, respects community roles and values, and pursues social justice, seeking health equity for groups experiencing actionable health disparities.

The following exposition of the core principles of public health ethics is based on the 6 sets of core principles found in the APHA's Public Health Code of Ethics (APHA 2019). The pioneering work of earlier thinkers and the input of numerous current reviewers inform the revised Code, which updates a 2002 version of the Code (Public Health Leadership Society 2002). The newer Code also reflects the increasing attention paid in intervening years to the impact of social determinants on health and to efforts to address racial and health inequities. The authors of the new Code do not rank the sets of principles or present them in order of importance. Below, they are presented in a way designed to illustrate their relation to narrative ethics.

Interdependence and Solidarity

The values of interdependence and solidarity most decisively demarcate public health ethics from allied fields of health ethics, so it is appropriate to begin with them. These values reflect public health's commitment to community and population health. Uncovering statistical evidence of the health or disease of populations drives epidemiology and surveillance, but ultimately these approaches represent means rather than goals. Because the goal of collecting population data is to positively impact communities, public health cannot afford to lose sight of the nature of a community and its needs. A community is not a mere aggregate of individuals, a denominator for statistical purposes. Rather, it consists of a nexus of social relations held together by familial ties, common interests, and bonds of loyalty, friendship, and compassion. Public health practitioners therefore need to see the establishment of relations with communities and their members as integral to research and implementation activities. Solidarity demands that we recognize that we are all in it together when facing our greatest problems and that we must stand together to collectively address them. Interdependence means every community member is so linked to every other community member that individual actions can impact other community members. Interdependence underlies a key rationale for public health's legal authority to limit individual actions that can adversely impact others. The demonstrable harm of smoking to smokers, for example, generated few restrictions on smoking during the twentieth century. Conversely, the "primary purpose of smokefree laws and policies is to protect people who do not smoke from second-hand smoke" (CDC 2018). This authority to limit individual action through legal measures like quarantine, smoking bans, or vaccination mandates clearly distinguishes public health ethics from medical ethics and bioethics.

Health and Safety

Unlike clinicians, who mainly treat disease in individual patients, public health practitioners have a duty “to prevent, minimize, and mitigate health harms and to promote and protect public safety, health, and well-being” for the entire community (APHA 2019, 5). Upholding the health and safety of the community provides the justificatory basis for those situations where public health must limit individual actions that pose health or safety threats to others.

Professionalism and Trust

Public health cannot be effective without the trust of the communities it serves. The Code links gaining the public’s trust to following the highest ethical, scientific and professional standards. Conversely, the influence of secondary interests, whether personal, financial, or political, and a lack of transparency regarding them, undermines trust and public health institutions. Scientific integrity, we can say, mediates the translation of scientific evidence gained by research into interventions that can resonate with communities.

Health Justice and Equity

All major public health institutions including the WHO, the APHA, and the CDC have embraced health justice and equity as core concerns. As we have outlined in the “Procedure” section above, practitioners need to evaluate public health actions through a justice and equity lens. More challenging, health justice and equity also requires that public health practitioners promote activities that reduce not only existing health inequities but also inequalities related to “voice, power, and wealth” (APHA 2019, 5). This broader mandate is required because inequalities with respect to social determinants such as education, social status, and economic resources profoundly impact health. For this reason, public health practitioners need to collaborate with officials and practitioners in other sectors such as transportation, building, or education that may impact health. Ultimately, addressing the social determinants of health requires that public health takes steps to remediate long-stranding institutional practices and structural conditions that adversely impact health.

Recognition of the need to remediate social determinants to improve health is hardly new. However, change in this area has proven to be a long-standing challenge, and one that other developments have overshadowed. In 1848, the Prussian government sent Rudolf Virchow, to assess a typhus epidemic in Silesia. In reporting on the epidemic’s origin in 1849, Virchow, founder of “social medicine”, emphasized underlying social determinants of health, Addressing them in his report,

he proposed not medical solutions but a bold program of social reconstruction that the Prussian government rejected as too radical (Taylor and Reiger 1985). That same year 1849 also witnessed John Snow's advancement of the theory of a waterborne transmission of cholera (Thomas 1968). He famously followed up on that theory in 1854, discovering the source of a cholera outbreak in London in a contaminated well. This discovery, which led to the well's disabling, marks the founding event of the science of epidemiology. However, his waterborne theory remained a bone of contention until 1883, when *Vibrio cholerae* was isolated. Gradually, the field of public health began modelling itself after the precedent John Snow had set of implementing interventions based on epidemiologic data (CDC 2004). His model, which bases public health action on epidemiological evidence, has been enormously successful. Once it became successful and established it also has been largely uncontroversial in improving health and reducing disease for entire populations. By contrast, Rudolf Virchow's model of addressing social determinants of health has enjoyed little success or wide acceptance. Unlike Snow's model, it targets subsections of the population that lack power and demands radical restructuring of society and its institutions. Virchow's model requires not only enormous resources, but also social and political changes that face an uphill climb against the powers that dominate the status quo.

Most progress to date in addressing health inequity has been made when public health science and technology "lifts all boats," as it has in the past with improvements in sanitation or more recently with universal vaccination campaigns. Today we have far better epidemiologic measures of the range and depth of health inequities and more awareness of them. Yet relatively little progress has been made in remediating social determinants, that is, in radically restructuring social conditions and institutions. In many countries, including the United States, the real frontier for addressing health inequity does not lie in remediating the ultimate causes of health inequity. Rather, it mainly lies in mitigating their effects. For this more modest mission, even gaining universal access to affordable health care would represent an enormous step in all but the most highly industrialized countries. Although highly industrialized, the United States is an exception, because it has never officially ratified a right to health and still has not provided universal health care to its citizens. In the United States, the even steeper challenge of remediating the causes of health inequity may require as a first step the adoption, really creation, of the role of "chief health strategist" in local health departments (DeSalvo et al. 2017). The role of these chief health strategists would be to coordinate collaborative efforts with other sectors that impact health to address health issues. The success of such collaborative efforts may then serve eventually as a catalyst to bring about political consensus and transformation. If history provides a lesson, it is that eliminating health disparities will require such a transformation in order to restructure existing social structures and institutions.

Human Rights and Civil Liberties

While access to health care accounts for only part of the determinants of health, it nevertheless can have a sizable impact on health and health equity. Not surprisingly, then, public health as a profession supports the right to health, universal access to health care, and civil liberties as both professional concerns and as matters of social justice and ethical obligation. WHO's Constitution adopted in 1946 proclaimed "the highest attainable standard of health" as a fundamental human right. It defined health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO 1948, 1). Hahn and Muntaner recently have contended that this notion of the highest attainable standard of health is open-endedly vague and unattainable. They propose instead a more practically attainable right: "a right to equitable access to available resources for health (RARH), including equitable access to the social determinants of health" (Hahn and Muntaner 2020, 249). Regarding civil liberties, Hahn et al. have shown that their existence and enforcement or the lack thereof can constitute an influential social determinant of health (Hahn et al. 2018). Protecting civil rights of racial/ethnic minorities in the United States "by laws, regulations, and court decisions and redress of violations of those rights" promotes health (Hahn et al. 2018, 23). Specifically, such measures "have been associated with marked improvements in the health of covered populations and of intermediate outcomes such as education and income known to produce health benefits" (Hahn et al. 2018, 23). Both Human rights and civil liberties are grounded in the principles of autonomy, justice, and the pursuit of human well-being. Public health is committed to these values, even though in circumstances that jeopardize society's health and safety, it supports coercive measures that can limit individual behavior.

Inclusivity and Engagement

Inclusivity and engagement rooted in transparency and accountability are as important to building trust as is the professionalism of public health practitioners. The slogan, "Nothing about us without us," neatly sums up the rationale behind engaging with communities and stakeholders. Namely, everyone should have a voice in matters that affect them. The antithesis of inclusivity and engagement happens when practitioners and researchers engage in "helicopter science" or "parachuting research" (Nature 2018, 274). These phrases conjure up images of commando researchers swooping down upon unsuspecting communities for "get in, get out" operations. The researchers are less than transparent about their intentions, give no voice to the community in what happens, and fail to report the research results back to the community. As public health undergoes data modernization, practitioners will need to redouble efforts to engage with communities in order to avoid the pitfalls of helicopter science. Extending Snow's legacy, data modernization holds enormous

potential to strengthen and extend public health practice, but it also raises many privacy and equity concerns. More importantly, its very success may tempt some practitioners to over rely on data and machine learning algorithms while overlooking the role of engagement. Factoring stakeholder input into the design of interventions may become even more crucial, then, precisely to the extent progress in data modernization unfolds.

Looking Forward: Human Centered Design and Narrative Ethics

Public health today is experiencing something analogous to the transitioning in the 1990s from top-down paternalistic medicine to patient-centered care. Patient-centered care emphasizes patient satisfaction, engaging with patients, and involving them in decision making (Capko 2014). Likewise, it may increasingly become unfeasible to have *evidence-based* interventions designed by public health officials simply imposed upon a community. The resistance to social distancing and lockdown measures during the COVID-19 pandemic suggests that opposition to paternalistic governmental measures, let alone mandates, is strong. That holds especially for Western libertarian societies compared to communitarian-oriented societies like China and Korea. A solution to this opposition to top-down measures may well lie in having *evidence-informed* interventions codesigned by public health officials and stakeholders. In other words, going forward, bottom-up public engagement must complement top-down evidence-based public health measures. That strategy may be crucial for mitigating health inequities in minority communities whose members feel alienated from government and public institutions.

As we look forward in public health, human centered design (HCD) presents itself as an approach especially suited to complement data modernization efforts (IDEO 2018). That is because, while HCD, too, comes out of the digital technology sector, it emphasizes the creation of user-friendly products. It no longer suffices that products incorporate the latest technology; it is equally important that they be designed with the end user in mind. Whereas traditional public health focuses on replicating evidence-based solutions, HCD is iterative and interactive. It emphasizes empathic listening to end users (stakeholders) and incorporating their input into design. An evidence-based solution might serve as a take-off point for discussion, but through the HCD process, a new idea is conceived, put into design, then iteratively tested and redesigned until it resonates with end users.

“Listening sessions” to gather input from communities has become part of the standards of good public health practice (PHAB 2013, 23). Both listening sessions and empathic listening gain information, but the latter understands the importance of establishing personal rapport with people. Empathic listening, the heart of HCD, however, is not on the radar of most public health practitioners as a skill to master. Nor was good bedside manner formerly considered a skill required to practice

medicine. But bedside manner has been shown to be important to patient outcomes, while training and exposure to narrative medicine programs can improve bedside manner (Remein et al. 2020). The presupposition of this volume is that an analogous case can be made for public health practitioners. To become more effective in working with communities, especially alienated minority communities experiencing health inequity, practitioners need to develop their empathic listening skills. Doing so will complement and enhance their scientific training, making them better practitioners. Our hope is that this volume and the stories in it can make a modest contribution to this development.

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