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Trustworthy Public Health Advocacy. Reconciling Different Roles for Epidemiologists During a Health Emergency

– Jan Piasecki –

Abstract: In this commentary on Giubilini et al.'s 2025 paper, *Expertise, Disagreement, and Trust in Vaccine Science and Policy: The Importance of Transparency in a World of Experts,* I argue that building public trust during health emergencies requires more than addressing uncertainty, expert disagreement and gaps in knowledge—it demands trustworthy public health advocacy. Such advocacy must be explicit, transparent, and evidence-based. I expand Giubilini's et al. argument and I focus on additional issues specific for epidemiology and public health. I point out that trust hinges on recognizing the multiple roles epidemiologists play in public discourse, that epidemiologists should be explicit about assuming the role of an advocate for specific public health policies, and that these policies are not only compulsory but also oriented toward public health rather than individual interests.
Keywords: epidemiology, health emergencies, trust, COVID-19, public health, advocacy

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Introduction

The public perceive of health experts through ideological lens (Kossowska, 2021). This ideologized perception undermines trust to experts and public health policies they recommend. The effect of ideologization of public health during health crisis can be amplified by an "infodemic"—a flood of misinformation concerning the risks of infectious diseases and possible preventive measures (World Health Organization, 2020). Building trust with the public during a health emergency requires health experts to be transparent about uncertainties, disagreements within expert communities, and gaps in knowledge (Giubilini et al., 2025). Moreover, trust can be facilitated by an honest public discourse on public health policies (Kossowska, 2021). Therefore, epidemiologists and public health experts should be clear about the roles they assume in public discourse and acknowledge that the public health policies they advocate for are designed to advance public health rather than individual health and well-being. In the time of health

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emergency, public health requires trustworthy public health advocacy that is explicit, transparent, and evidence-based.

This paper is a commentary to the 2025 article published in *Diametros* by Giubilini et al. entitled *Expertise, Disagreement, and Trust in Vaccine Science and Policy: The Importance of Transparency in a World of Experts*. The authors argue that experts' authority depends not only on the epistemic virtues of experts but also on ethical virtues, which are associated with a truthful approach to the uncertainties inherent in scientific endeavors. Giubilini et al. state: "trust in someone is always (…) trust in some moral skills, such as being honest, or caring about others" (p. 9) and "trustworthiness requires experts to be transparent about how values contribute to recommendations"(p. 10). They point out that trust is undermined by a lack of transparency about scientific uncertainty, disagreement among experts, and incompleteness of knowledge.

By the same token I argue that experts who want be trusted should be explicit and transparent about the roles they play in the public discourse, namely that as advocates of public policies, and about the fact that their primary concern, when advocating for compulsory polices, is public health – not individual best interests. Thus I expand Giubilini et al.'s reasoning by pointing out some specific characteristics of epidemiology and public health.

My argument builds on existing ethical guidelines for epidemiology and public health. I demonstrate that advocacy is already embedded in the professional role of epidemiologists and public health experts. I then outline the main controversies surrounding the concept of advocacy in these fields, briefly discuss the tension between public health and individual freedom, and summarize the commonly accepted justifications for public health interventions. Finally, I define the concept of trustworthy advocacy and its key requirements drawing on wording present in ethical guidelines for epidemiology and public health.

Professional public health policy advocate

Epidemiology is defined as "the study of the distribution and determinants of health-related states or events in specified populations, and the application of this study to control health problems"(Rothman, 2004, p. 4). This definition captures two aspects of epidemiology: the basic science aspect, which is directed at producing generalizable knowledge about the determinants of health and diseases, and a practical aspect directed at addressing health problems through public health interventions (Krieger, 1999).

The definition suggests diverse professional obligations for an epidemiologist: generating knowledge and applying that knowledge. However, epidemiologists and public health experts are often not in a position to directly implement the knowledge they produce. Instead, this knowledge is applied through public health policies. Therefore, epidemiologists and public health professionals may fulfill this role by advocating for public health policies.

The American College of Epidemiology's *Ethics Guidelines* state: "Epidemiologists not only pursue knowledge about the distribution and determinants of health and disease in populations, but also uphold the value of improving the public's health through

the application of scientific knowledge"(American College of Epidemiology, 2000), and one can argue that application of scientific knowledge can take a form of advocacy of certain public health policies. The section *3.1.1. Obligations to Communities* of those *Guidelines* confirms that epidemiologists have an obligation to advocate on the behalf of their communities. I will analyze this section later in this commentary.

For the purpose of this article I define public health advocacy as an epidemiologist's participation in public discourse with the goal of establishing public health policy. The role of a public health policy advocate is grounded and regulated in various ethical codes for epidemiologists and public health professionals. I will take a closer look at how ethics guidelines define this role and what kind of requirements they put on public health experts. However, first I would like to discuss a few controversies that are associated with this role.

Challenges of public health advocacy

There has been a long-standing debate in epidemiology and public health about the nature of scientific inquiry (Krieger, 1999). This debate has two sides: those who argue that epidemiology is an objective science that simply examines the body of scientific evidence, and those who contend that epidemiology is socially engaged, as it pursues the goal of public health through the advocacy of public health policies (Krieger, 1999). This debate, along with epidemiologists' involvement in public discourse on controversial issues—such as smoking bans—has contributed to the negative perception of advocacy. McKeown and Weed's (2002) short article on ethics in epidemiology and public health notices this controversy in their definition of the term "advocacy," which:

> refers to the process of supporting legal, policy, or scientific positions, decisions, and arguments. For some, public health advocacy has acquired *a negative connotation*; advocates are perceived as ideological, unyielding, and in conflict with the objectivity required for science based public health decision-making. "Thoughtful" advocacy, in which even aggressively held support for decisions can change in response to changes in scientific evidence, has been suggested. (p. 739)

This definition not only captures what advocacy entails—supporting, among other things, public health policies in public discourse—but also acknowledges the negative connotations associated with public health advocacy and the perception of public health advocates as ideologues.

This negative perception of public health advocacy may stem from at least two factors. First, public health advocates engage in political discourse. Second, they do not weigh competing values but remain committed to a single value: public health. This is exemplified in a quote about advocacy by Chapman (2001):

> Advocacy is unashamedly purposive in its intent. Its participants' objectives are not merely to place their concerns on the public table, retreat and wait expectantly to hear if the ensuing community or political debate and the decisions reached are

> favorable. Once committed to an objective, advocates set out to maximize support by strategic planning of the ways they will argue their case, including special attention to counteracting or reframing any strengths of their opponents' arguments. Discourse in academic public health circles is disciplined by principles of evidence and critical appraisal. By contrast, the currency of advocacy is metaphor, analogy, symbol and efforts to present data in ways that are resonant and memorable to often inexpert target audiences. (p. 1229)

According to Chapman, public health policy aims to influence public policy in a well-defined direction, actively engages in public discourse to achieve strategic objectives, and employs the language of persuasion. However, this approach to advocacy may undermine trust in public health experts, as it exposes their paternalistic stance toward the public. In this view, the public is not treated as rational, and participants in the debate are not expected to balance different values or weigh competing reasons. Instead, experts presume to know what is best for the public and use public discourse as a means to shape opinions through emotionally charged persuasion.

Therefore, some are trying to find a better definition of advocacy that would help epidemiologists and public health professionals to discharge an obligation of improving the public's health through application of scientific knowledge. Dowdy and Pai (2012) write: "epidemiologists might position themselves closer to the ideal of the 'honest broker' of policy options, bringing scientific evidence to bear in policy decisions and speaking to the strengths and weaknesses of the data available" (p. 916). The idea of a scientist as an honest broker was defined by Roger A. Pielke Jr, who distinguished four different roles scientists can play in policy making. The *pure scientist* does not want to participate in the process of policy making, the *science arbiter* helps decision makers in resolving scientific problems, but herself does not resolve normative issues. Then there is an *issue advocate* who tries to support a specific policy using scientific information (this role has already been defined by Chapman in the context of public health). Finally, an honest broker is someone who takes "an effort to expand (or at least clarify) the scope of choice for decision-making in a way that allows for the decision-maker to reduce choice based on his or her own preferences and values"(Pielke, 2007, p. 3). Thus the role of an honest broker seems to avoid the problems associated with advocacy, namely bias and eroding trust.

As we have seen, the two roles of epidemiologists complement each other and at the same time produce tensions (Weed & Mink, 2002). They are complementary insofar as the identification of health risk factors is logically followed by addressing them to prevent disease and promote health. Tension arises because an epidemiologist as a researcher is uncertain about possible courses of action, while as an advocate he or she manifests certainty to the point of coming up with a compelling public health campaign slogan, such as "a non-smoking section of a restaurant is about as useless as a non-urinating section of a swimming pool" (Chapman, 2001, p. 1229). In other words, an epidemiologist who produces and assesses evidence grapples with the uncertainty associated with establishing causal relationships in observational studies and their consequences for science and society (Weed & McKeown, 2008). An epidemiologist as a public health advocate

struggles to draw a line between information and persuasion (Chapman, 2001, p. 1229). However, this tension cannot be overcome without referring to the context of public discourse, where an advocate tries to support certain public policies. And public forum is a place where experts earn and cultivate their public trust, which then is a vehicle for support for public health policies.

Public health and individual freedom

The practice of public health consists of "collective interventions that aim to promote and protect the health of the public" (Verweij & Dawson, 2006, p. 21). These interventions can be compulsory and implemented without informed consent, such as mandatory face masking during an infectious disease epidemic or compulsory vaccinations. The sanctions for non-compliance can vary: a person may be fined or deprived of certain benefits, such as public school admission.

In a clinical context, individuals have the right to refuse any medical intervention. A competent patient decides what is in their best interest. In free societies, individuals also make decisions about what they eat, whether they want to smoke, and, in general, we do not question that competent adults can determine what is best for them.

However, in public health, the primary focus is not on individuals but on the health of the public as a whole. So while Smith may rightly claim that smoking is in her best interest—because, without it, life would feel tasteless—public health experts have a different focus. They seek to make pleasurable smoking as difficult as possible. These public policies serve the interests of public health but often conflict with the individual interests of committed smokers. Moreover, such health policies are usually compulsory, and individuals are either subtly or forcefully nudged into compliance.

This conflict between individual interests and the compulsory nature of public health interventions has sparked controversies throughout the history of modern societies (Seo, 2021). For instance, in Canada, the first anti-vaccination league was established in the 1870s and put forward arguments similar to those heard today among anti-vaxxers. They believed that compulsory vaccination policies infringed on parental rights to raise their children according to their values, and they expressed concerns about vaccine safety and the sufficiency of evidence for their efficacy (Tunnicliffe, 2021). During the COVID-19 pandemic, critics of restrictive policies—politicians, celebrities, and ordinary citizens—often appealed to individual freedoms and rights, which they believed were violated by such public health measures, while remaining skeptical about the science that supported them (BBC, 2020).

The ethics of public health usually focus on justifying these public measures. Nancy Kass (2001) formulated a set of conditions that must be met for a public policy to be justified. These conditions are: a) the goal of the policy is to lessen mortality and morbidity; b) the intervention can be measured and examined for its efficacy; c) potential burdens of the intervention must be identified; d) burdens should be minimized; e) the intervention must be implemented fairly; and f) the benefits and burdens of the intervention must be fairly balanced. A similar approach is proposed by Childress et al. (2002), according to whom public health interventions should be: a) effective, as infringing on

one's autonomy must improve or protect public health; b) proportional, meaning the benefits should be proportional to the infringement of autonomy; c) necessary, as the goals of the intervention can only be realized through these means; d) least infringing, meaning it should be as minimal as possible; and e) publicly justified, meaning the justification for these interventions should be presented in public discourse.

The ethics of public health acknowledges that public health measures may infringe on individual freedoms and, in some cases, be applied unjustly. However, it seems common sense that when epidemiologists and public health experts are transparent about the nature of these measures and their rationale, trust is more likely to increase.

Trustworthy public health advocacy

I have argued that epidemiologists and public health experts have an obligation to apply their scientific knowledge in practice. I have also stated that public health advocacy serves as a means to fulfill this duty. However, I have acknowledged that public health advocacy is often perceived as ideological. Moreover, public health policies are frequently compulsory and not necessarily in individuals' best interests, which can contribute to negative attitudes toward public health efforts.

At this point, the question arises: how can the concept of advocacy be framed in a way that fosters public trust rather than eroding it? To address this, I will review existing ethical guidelines for epidemiology and public health, as identified in a systematic review. Finally, I will distill these insights into three general principles for public health advocacy.

The previously mentioned *Ethics Guidelines* of the American College of Epidemiology state:

> In confronting public health problems, epidemiologists sometimes act as advocates on behalf of affected communities. Care must be taken to ensure that such advocacy does not impair scientific impartiality in designing and interpreting new research and implementation efforts pertinent to the public health problem in question. Indeed, epidemiologists who advocate should be open to the possibility of changing their views as new evidence or other relevant information becomes available. An impartial advocate should keep in mind that the core value of improving the public's health through the application of scientific knowledge relies upon the ideas that the acquisition of knowledge is dynamic and that knowledge itself can improve. (American College of Epidemiology, 2000)

These guidelines underscore the personal qualities of epidemiologists: impartiality and readiness to change one's opinion in light of new evidence. Although the concept of impartiality might have different philosophical interpretation (Jollimore, 2021), here "impartiality" should be read in context of having an open mind and be ready to change one's opinion in the light of new evidence, and not become a partial and staunch proponent of previously held position.

American Public Health Association's *Public Health Code of Ethics* (2024) does not use the term "advocacy" when addressing the issues clearly relevant in this context. One of those ethical guidelines reads: "Encourage policy development to protect the public's health" – which clearly refers to public health advocacy. However, this obligation to advocacy for public health polices is counterbalanced by recognition of scientific progress:

> Recognize and acknowledge when evidence is changing or incomplete and when assumptions or contexts change the relevance of evidence. Some public health problems are new or changing in such a way that evidence is unavailable or rapidly developing and changing. Identifying and communicating gaps in knowledge—knowing and communicating what we do not know—is an important aspect of judging strength of evidence, being accountable and transparent, and building public trust. (p. 27)

This passage addresses truthfulness in public health advocacy and transparency about the nature and quality of the evidence supporting certain policy positions.

The first version of *Ethics Guidelines for Environmental Epidemiologists* written by Soskolne and Light (1996) directly addressed the issue of advocacy:

> Environmental epidemiologists provide the science used to inform the policy-making process at local, national and international levels. In addition, environmental epidemiologists may of course serve as advocates for particular issues. In principle, nothing is wrong with an epidemiologist using his or her skills to advocate some particular environmental health position. However, great care must be taken to distinguish between scientific and non-scientific considerations when embracing a role as an advocate as much as these issues may be separated. Epidemiologists, as scientists, have an obligation to try to clearly demarcate what part of their advocacy work is motivated purely by personal political/social concerns, rather than that part which stems less subjectively out of the requisites of their science. Appeals to 'objective science' should not be made as an attempt to mask personal convictions. (p. 143)

Here, the distinction is made between what stems from scientific evidence and what elements of the policy or argumentation are rooted in the personal convictions of an advocate. According to the authors of these guidelines, this issue should be directly addressed in the process of advocacy. This element seems different from transparency about evidence; rather, it underscores the explicitness of advocacy.

The newest version of the International Society for Environmental Epidemiology's *Ethics Guidelines for Environmental Epidemiologists* from 2023 also directly tackles the issue of advocacy:

> Advocacy Role: Environmental epidemiologists may choose to become advocates for abating some environmental risk or rebutting what they believe to be a false incrimination of some environmental factor. In either situation, they have a duty to avoid partiality in the conduct and interpretation of their research or in the interpretation of others' research. (p. 17)

This passage refers to impartiality in the interpretation of research evidence and thus confirms already existing parameters of ethical advocacy.

Grounded in the review of those guidelines, I would like to propose three fundamental principles of trustworthy public health advocacy: 1) explicitness, 2) transparency, and 3) being evidence-based.

Explicitness entails that an epidemiologist directly identifies herself as an advocate with the goal of changing public health policy. For instance, during a video show or podcast, when active on social media, or when writing a lengthy opinion piece for a newspaper, an epidemiologist explicitly states that she is currently an advocate or a proponent of a certain policy. The epidemiologist fails to be explicit about her role if she merely claims, for example, that "we should listen to what science says." This role should be distinguished from that of a researcher, who collects and assesses evidence. Although these two roles may conflict, they also complement each other, and the role of an advocate is grounded in research and collecting evidence about public health. An epidemiologist can play those roles interchangeably in different contexts, however, switching between them requires reflexivity and commitment.

An epidemiologist should be also transparent in terms of the values and evidence that drive their arguments. It is not sufficient for an advocate to come up with a catchy slogan, such as the aforementioned one about non-smoking areas in restaurants and urinating in swimming pools. Transparency entails disclosing the trade-offs between values associated with certain policies, such as individual freedom versus saving lives. Furthermore, transparency also encompasses justification for public health measures. Trustworthy advocacy requires justifying a public health intervention to the general public and proving that it is effective, proportionate, fair, and least infringing.

Finally, each policy proposal that is advocated should be supported by evidence, and epidemiologists should be ready to change their positions in light of scientific development.

Epidemiologists and public health professionals do not have to assume the role of advocates; they may contribute to improving public health through the application of scientific knowledge by other means in the policymaking process. However, a more critical and distanced approach to advocacy—where advocates are required to disclose their role and the rationale behind proposed policies—can help alleviate the tension between these two roles that I have described above.

Conclusion

Summing up, Giubilini et al. (2025) argued that trust goes beyond epistemic virtues and requires transparency about uncertainties, expert disagreements, and a lack of knowledge. I have argued that trust in epidemiology and public health additionally requires transparency about the advocacy role played by experts and their focus on public health rather than individual freedom.

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