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Public health ethics: informing better public health practice

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Abstract:

Public health ethics has emerged and grown as an independent discipline over the last decade. It involves using ethical theory and empirical analyses to determine and justify the right thing to do in public health. In this paper, we distinguish public health ethics from clinical ethics, research ethics, public health law and politics. We then discuss issues in public health ethics including: how to weigh up the benefits, harms and costs of intervening; how to ensure that public health interventions produce fair outcomes; the potential for public health to undermine or promote the rights of citizens; and the significance of being transparent and inclusive in public health interventions. We conclude that the explicit and systematic consideration of ethical issues will, and should, become central to every public health worker's daily practice.

Welcome to this special issue of the NSW Public Health Bulletin focused on public health ethics. With it, we hope to open a local conversation about the importance and usefulness of ethics in public health practice. Ethics is traditionally a branch of philosophy, although it is increasingly an interdisciplinary field. Ethics is concerned with moral questions and with discerning the right thing to do. 1 Ethics is normative, that is, it asserts how things should be, it makes evaluative statements and judges some courses of action to be better than others. However, ethics rarely provides easy or absolute answers to the questions it poses. Instead, ethics is more concerned with providing explicit reasons why, and on what basis, one action is better than another.

Public health and ethics

All public health practitioners make decisions that have ethical implications, knowingly or otherwise. If we allocate more funding to services for disadvantaged communities, design a program to achieve the greatest population reach, or shut down a take-away shop because of a high incidence of food poisoning, we are making choices that have ethical consequences, and we are probably acting because we think it is 'the right thing to do' or 'just common sense.' Each of these actions can be linked to a well-established set of moral ideas: respectively, the importance of distributive justice or fairness, a commitment to achieving the greatest good for the greatest number, and the belief that

we have a right to limit someone's freedom if he or she is doing harm to others. These ideas are deeply embedded in our social and professional culture but are rarely made explicit.

This issue of the Bulletin demonstrates the benefit of an alternative: explicitly focusing on and reasoning about ethical issues in public health. Such a focus requires understanding of ethical concepts and theories, and knowingly making ethical judgments. A strength of ethics is that it contains a diverse and sometimes contradictory set of ideas about what is right. Although this can feel troublesome to those of us trained in scientific traditions, the diversity and complexity of ethics are its strength. It unsettles our common-sense interpretations, upsets our tendency to pursue an automatic course of action, and forces us to clarify our own reasons for acting and give good reasons to others. Without access to ethical ideas, we may justify our actions by reference to gut feeling, organisational policy, evidence or economic and procedural efficiency. The right thing to do then becomes the thing that feels right, is directed by a higher authority, is proven, costs the least money and/or reaches the most people. These reasons are an impoverished base for decision making, and we suspect that they often do not sit well with many experienced public health practitioners. What we hope to show in this issue is that public health practice can be better conceptualised and justified if we apply a greater knowledge of public health ethics.

What is ethics?

Ethics is a broad and diverse field. It can be divided into meta-ethics, normative ethics and practical ethics. 1 Meta ethics deals with foundational ethical questions: the meaning of concepts such as virtue, justice, good and right. Normative ethics provides principles, rules, guidelines and frameworks for evaluating the morality of actions. Practical ethics, or applied ethics, concerns ethical questions in particular contexts. From the mid-20th century many sub branches of practical or applied ethics emerged, such as: research ethics, bioethics and most recently public health ethics. When people think of ethics in a health context, they often think first of research ethics: applications made to Human Research Ethics Committees. 2 Bioethics, focused on medicine and biotechnology, was born in the 1960s and rapidly expanded concurrent with advances in biotechnology. 3 Although philosophers have written about doctor patient relationships for centuries, clinical ethics is now generally seen as a branch of bioethics. Public health ethics did not get started in earnest until the 21st century. 4–6 The last decade has been highly productive, generating specific journals, 7 many books 8–16 and technical reports. 17

Public health ethics, research ethics, clinical ethics, politics and the law

Public health ethics is distinct from both research ethics and clinical ethics. Research ethics concerns the protection of research participants and the conduct of researchers: how researchers should, for example, ensure that participants consent to participate in clinical trials, allow participants to withdraw from studies without penalty and minimise potential harms to participants. Clinical ethics concerns the protection of patients and the conduct of individual clinicians: how clinicians should, for example, show respect for patients, offer and provide beneficial treatments and protect confidentiality and privacy. Clinical ethics often intersects with public health ethics – when clinicians, for example, administer vaccinations to individuals, they are participating in a public health intervention. However, broadly speaking, public health and public health ethics are characterised by their 'publicness.' Dawson and Verweij have suggested that the 'public' in public health has two meanings that are important for ethical deliberation: first, 'public' in that the aim of public health is

to protect or promote health at a collective, community or population level; second, 'public' in that public health involves collective, generally state, action. 10

This public focus entails distinctive and challenging ethical issues. Public health ethics requires thinking at a collective level, not just an individual level, and this inevitably requires trade-offs, including between the wellbeing of communities and the wellbeing of individuals. In clinical encounters, health professionals are ethically obliged to advocate in the best interests of an individual patient. In research, the researcher is required at all times to consider the interests of individual participants, regardless of the consequences for the study. In public health, in contrast, we are almost always forced to weigh up benefits and harms across problems and populations, creating winners and losers, commitments and missed opportunities. In general, in dealing with individuals, we value respect for the autonomy of others, that is, recognition of the moral importance of allowing other individuals to govern their own lives, to be and to do in accordance with their own goals. However, much more than in clinical medicine or research, public health necessarily involves encouraging people to do things for their own good, or to reduce their risk of future harm: that is, public health involves being paternalistic. The proper limits of this paternalism are a commonly discussed problem in public health ethics. 5,18,19

This highlights that, because public health measures are often undertaken by the state, both decision making in public health and ethical reasoning about public health are inevitably political. Political philosophy, closely related to moral philosophy, is an important intellectual resource for public health ethics. Public health, like other areas of state activity, is subject to the budgetary processes of governments, and the community to which public health responds is partly shaped by political forces. Ethical reasoning about public health thus must occur in a political context. However ethics does not accept these political processes uncritically: sometimes politically acceptable actions are immoral, and sometimes politics is used as a trump to avoid ethical debate.

One final distinction we need to make is that between public health ethics and public health law. Public health practitioners are accustomed to working within the framework of public health law; indeed acting in accordance with the law may sometimes be conflated with the idea of acting ethically. 1,14 The law and ethics, however, are distinct. The law is final, compulsory, precise and specific. 102 | Vol. 23(5–6) 2012 NSW Public Health Bulletin Ethics, in contrast, is open to disagreement, flexible and dynamic. However – perhaps counter-intuitively – ethics is the higher authority. We can make a judgment that a law, including a public health law, is immoral. Laws that are immoral may sometimes be considered illegitimate by the population that they govern. Consider, for example, the state of emergency laws frequently introduced by dictators to justify torture and severe limitations on citizens' freedoms. These are technically legal in that state at that time, but are also immoral. Thus, although public health practice is framed by a complex web of legislation and regulation, public health law will rarely help us in determining whether public health actions are ethical. Public health actions that are morally justified are more likely to be perceived as legitimate, whether or not they are supported by laws.

Issues in public health ethics

While public health ethics covers an enormous range of issues, some central concerns underpin debates about the ethics of public health interventions or policies. They include:

- the way problems are prioritised or de-prioritised in public health practice
- weighing up the benefits, harms and costs of intervening
- ensuring that public health interventions produce fair outcomes
- undermining or promoting the rights of citizens
- being transparent and inclusive in public health interventions. 3,17,20–26

Setting priorities and measuring benefits, harms and costs

Because public health always involves prioritisation and compromise, many public health ethicists have sought to determine what problems public health should address, and how public health practitioners should evaluate the benefits and harms of such interventions. Some writers have suggested that it is more ethical to focus on fundamental causes of ill health such as environmental or market structures, rather than on more proximal causes such as individual behaviours. 3,21 One possible method to choose actions to address these problems is to evaluate the net benefits and harms of each possible action. This task is the primary concern of utilitarians. Utilitarianism is a form of consequentialism – it evaluates the morality of actions according to their consequences. Utilitarianism defines the right action as the action that achieves the greatest good for the greatest number of people, where good can be defined variously as pleasure, happiness, preference satisfaction or more generically, benefit. 3,17,19,20,22,23,25 Much of public health is implicitly built on utilitarian ideas, so public health evaluations often seek to determine the average net benefit of an intervention. For utilitarians, some harms might occur to some people, but this can be justified if an average benefit can be demonstrated.

Focusing on fairness

An alternative to utilitarianism is a range of distributive justice approaches. These resonate with a commonly expressed concern in public health for achieving equity. Distributive justice theorists suggest that interventions are more ethical if they are more fair. In contrast with utilitarianism, distributive justice approaches are less interested in the average net benefit and burden of a problem or intervention: instead what matters is who benefits and who is burdened, particularly whether vulnerable groups are made worse off and health inequalities increased. 3,4,15,17,19–21,23,25,27 For these theorists, the collective is generally considered more important than the individual. Thus interventions that generate collective benefit and could not be achieved by individuals alone – for example, the development of a community garden, the regulation of a dangerous industry or the provision of common transport infrastructure – are considered more valuable than individualistic interventions such as one-on-one healthy lifestyle counselling. 3,19,20,23,25

Considering rights

The human rights approach can also be useful in thinking about public health problems. 5,23 Two kinds of rights are generally recognised: negative rights (to non-interference), and positive rights (to receive or possess certain goods). Positive rights include a right to health or even to health improvement, and a right to privacy and confidentiality. 5,21,23,28 These positive rights were proposed later in the development of human rights. The older – and some still claim the only – human rights are negative rights, that is, rights to non-interference. The English philosopher, John Stuart Mill, famously argued that an individual's freedoms should be infringed only to prevent harm

to others. This principle is frequently invoked in arguments about individual liberty and the proper role of the state. 5,19,22,28 With this Millean Harm Principle in mind, interventions intended to prevent people from harming others become more ethically justifiable, while those intended to prevent them from harming themselves become less ethically justifiable. 3,21 Consider legislation making it illegal to sell contaminated food, versus legislation making it illegal to consume contaminated food. We support the first and not the second in part because the first conforms to the Harm Principle.

Justifying public heath processes

A final set of approaches – procedural justice approaches – focuses on the ethical importance of due process. In this approach, a more ethical intervention is one which is collaborative, transparent and accountable, accommodates diversity wherever possible, seeks a mandate for intervention and builds and maintains trust between the public health sector and the public it serves. 20–22,25,26

Thinking across ethical approaches

All of the approaches discussed above have strengths and weaknesses; they also reflect a commitment to different views of what society and a good human life should be. Utilitarianism is familiar to public health practitioners and is apparently simple: it requires only that we produce evidence of net benefit to justify an intervention. However the calculus at its heart is deceptively difficult. Who gets to decide what counts as a harm or a benefit? How can qualitatively different benefits and harms be defined, measured and compared, particularly where outcomes are uncertain and when harms and benefits may respectively accrue to different parties? Although it is possible to create measures that appear to allow such comparisons, they are often reductionist to the point of being meaningless.

The idea of distributive justice is equally familiar in public health, but often conflicts directly with utilitarianism. Achieving fairness is rarely consistent with achieving the greatest net average benefit, as it usually requires equals to be treated equally and unequals unequally, meaning that a larger share of resources may be allocated to a smaller number of disadvantaged people. Distributive justice also entails a collectivism (a privileging of the collective over the individual) that can be at odds with human rights and respect for individual autonomy.

There are difficulties in applying rights-based approaches also. If we decide that some people are being denied certain positive rights (e.g. a right to health improvement), to what extent can we justify interfering in their lives to ensure that they have that right respected, thus potentially intruding on their negative rights? How, for that matter, can we determine whether a person's right to health improvement exists, or is being respected? One way of attempting to solve this problem is to contrast opportunity and achievement. That is, it might be ethically preferable to ensure that everyone has an equal opportunity to be healthy, rather than requiring that everyone be equally healthy.

Procedural justice approaches are ethically important: in fact, some authors have argued that in a pluralist society we will never attain agreement on what should be done, so ensuring a fair process is the most ethical solution to public problems. 16 While these arguments are persuasive, there is still

a need for careful deliberation about the substance of public health, if only so that we can be sure that the fair process has considered and included all of the relevant issues.

Because each of these approaches has weaknesses as well as strengths, being able to think across them allows for a more balanced and reasoned approach to the ethical issues raised by public health. If a society is more procedurally just and does not routinely infringe people's negative rights, community trust may increase and the need for coercion to achieve public health goals may decrease. 5,20 Rather than consider only easily measurable outcomes, such as mortality rates or hospital admissions, utilitarian evaluations could include measures of justice or fairness. 16 These are just two ways in which considering and incorporating lessons from public health ethics may help to ensure the legitimacy of public health.

A moment in the history of public health ethics

The articles in this collection illustrate the benefits of working across ethical approaches when considering public health problems. There are three articles and one case study in this issue. Ross Upshur uses the outbreak of severe acute respiratory syndrome (SARS) in Toronto to discuss ethical concerns around the use of evidence in public health decision making. What counts as evidence; that evidence is only one form of considered information; and that the values and mission of public health can be sufficient for action without evidence are discussed. He argues that the precautionary principle will sometimes need to be invoked in health protection contexts, such as communicable disease outbreaks. However, he questions thresholds for action based on evidence in other areas of practice such as health promotion, chronic disease or environmental health.

David Isaacs provides an ethical framework that includes principles such as trust, reciprocity and risk, among others, through which he examines and evaluates immunisation programs. Procedural justice is invoked when he advocates for no-fault compensation schemes where children suffer rare, serious complications from immunisation, and for the way improved community consultation can strengthen decisions about public health immunisation programs.

Craig Fry's article on ethical issues in obesity intervention picks up this theme, in part, taking a distributive justice lens to examine concerns about targeting individuals versus population level interventions, in particular given current equivocal evidence about the effectiveness of many interventions for reducing obesity. That affected groups are already stigmatised intensifies these concerns.

Stephen Conaty's case study describing forced detention of a man with tuberculosis highlights the ethical and other tensions inherent in these decisions. This case demonstrates how social, economic, geographic and other determinants invariably affect the appropriateness and effectiveness of public health interventions.

These articles illustrate the need for public health professionals to consider a spectrum of ethical approaches when examining their public health practice. A resource list has been developed for those interested in extending their reading in and around public health ethics and is included after this editorial.

This issue of the Bulletin comes at a critical juncture in public health ethics — a time when the field is gaining momentum, being defined and connecting with public health practitioners. We have already

mentioned some of these developments: there are many others. In the USA in 2003, a model public health ethics curriculum was developed by leading ethics scholars and made freely available online. 24 In 2008, the World Health Organization released a special issue of its Bulletin on public health ethics. 29 The International Association of Bioethics has established an international public health ethics network. 30 The London School of Hygiene and Tropical Medicine has recently set up an International Programme for Ethics, Public Health and Human Rights, with associated visiting Fellowships and a seminar series. 31 The US Centers for Disease Control and Prevention (CDC) has established a CDC Public Health Ethics Committee. 32 Calls for a raised profile for public health ethics have been made in the local public health literature. 33 Public discussions relevant to health frequently invoke ethical concepts: for example, the Northern Territory National Emergency Response Act 2007(commonly known as the Northern Territory Intervention) has been critiqued for its potential to undermine the human rights of Indigenous Australians. 34,35 Ethics is increasingly included in public health textbooks and curricula.

Conclusion

The articles in this issue illustrate the value for public health professionals of knowing and being able to deploy ethical approaches in deciding about, explaining and justifying their practice. We believe that the time has come for all those involved in public health to routinely and systematically include ethics in their deliberations. We hope that this Bulletin will help to achieve that goal.

References

1. Kerridge I, Lowe M, Stewart C. Ethics and law for the health professions. 3rd ed. Annandale NSW: The Federation Press; 2009.
2. National Health and Medical Research Council, Australian Research Council, Australian Vice-Chancellors' Committee. National Statement on Ethical Conduct in Human Research. Canberra: Australian Government; 2007. Updated 2009.
3. Kass NE. An ethics framework for public health. Am J Public Health2001; 91: 1776–82. doi:10.2105/AJPH.91.11.1776
4. Kass NE. Public health ethics: from foundations and frameworks to justice and global public health.J Law Med Ethics2004; 32: 232–42. doi:10.1111/j.1748-720X.2004.tb00470.x
5. Bayer R, Fairchild AL. The genesis of public health ethics. Bioethics2004; 18: 473–92. doi:10.1111/j.1467-8519.2004.00412.x
6. Callahan D, Jennings B. Ethics and public health: forging a strong relationship. Am J Public Health2002; 92: 169–76. doi:10.2105/AJPH.92.2.169
7. Dawson A, Verweij M, eds. Public Health Ethics. Oxford UK: Oxford University Press; 2009ff.
8. Buchanan DR. An ethic for health promotion: rethinking the sources of human well-being. New York: Oxford University Press; 2000.
9. Holland S. Public health ethics. Cambridge: Polity; 2007.
10. Dawson A, Verweij M, eds. Ethics, prevention and public health. Oxford: Clarendon Press; 2007.
11. Peckham SA, Hann A, eds. Public Health Ethics and Practice. Bristol: The Policy Press; 2010.
12. Anand S, Peter FA, Sen A, eds. Publich Health, Ethics and Equity. Oxford: Oxford University Press; 2004.

13. Bayer R, Gostin LO, Jennings BA, Steinbock B, eds. Public Health Ethics: Theory, Policy and Practice. Oxford: Oxford University Press; 2007.
14. Gostin LO, ed. Public Health Law and Ethics. Berkeley: University of California Press; The Milbank Memorial Fund; 2010.
15. Daniels N. Just health: meeting health needs fairly. Cambridge: Cambridge University Press; 2008.
16. Daniels N, Sabin JE. Setting limits fairly: learning to share resources for health. 2nd ed. Oxford: Oxford University Press; 2008.
17. Nuffield Council on Bioethics. Public health: ethical issues. London: Nuffield Council on Bioethics; 2007.
18. Jones MM, Bayer R. Paternalism its discontents – motorcycle helmet laws, libertarian values, and public health.Am J Public Health2007; 97: 208–17. doi:10.2105/AJPH.2005.083204
19. Faden R, Shebaya S. Public Health Ethics In: Zalta EN, editor. The Stanford Encyclopedia of Philosophy. Available at: http://platostanfordedu/archives/sum2010/entries/publichealthethics/. Summer ed 2010 (Cited 3 April 2012).
20. Childress JF, Faden RR, Gaare RD, Gostin LO, Kahn J, Bonnie RJ et al. Public health ethics: mapping the terrain.J Law Med Ethics2002; 30: 170–8. doi:10.1111/j.1748-720X.2002. tb00384.x
21. Center for Health Leadership and Practice. Public Health Institute, Public Health Leadership Society Ethics Work Group, Public Health Leadership Society standing committee on Public Health Ethics. Principles of the Ethical Practice of Public Health. New Orleans, LA: Public Health Leadership Society, 2002.
22. Upshur REG. Principles for the justification of public health intervention.Can J Public Health2002; 93: 101–3.
23. Gostin KG. Public health ethics: tradition, profession, and values.Acta bioethica2003; 9: 177–88. doi:10.4067/S1726-569X2003000200004
24. Jennings B, Kahn J, Mastroianni A, Parker LS. Ethics and public health: model curriculum. Washington: Health Resources and Services Administration, Association of Schools of Public Health and Hastings Centre, 2003.
25. Baum NM, Gollust SE, Goold SD, Jacobson PD. Looking ahead: addressing ethical challenges in public health practice.J Law Med Ethics2007; 35: 657–67. doi:10.1111/j.1748-720X.2007.00188.x
26. Carter SM, Rychetnik L, Lloyd B, Kerridge IH, Baur L, Bauman A et al. Evidence, ethics, and values: a framework for health promotion.Am J Public Health2011; 101: 465–72. doi:10.2105/ AJPH.2010.195545 Public health ethics: informing better public health practice Vol. 23(5–6) 2012 NSW Public Health Bulletin | 105
27. Baylis F, Kenny NP, Sherwin S. A relational account of public health ethics.Public Health Ethics2008; 1: 196–209. doi:10.1093/phe/phn025
28. Thomas JC, Sage M, Dillenberg J, Guillory VJ. A code of ethics for public health.Am J Public Health2002; 92: 1057–9. doi:10.2105/AJPH.92.7.1057
29. Coleman CH, Bouesseau MC, Reis A. The contribution of ethics to public health. Bull World Health Organ 2008; 86: 578-A.
30. International Association of Bioethics. Public Health Ethics Network. Available at: http://bioethics-internationalorg/ indexphp?show=networks. 2011 (Cited 3 April 2012).

31. London School of Hygiene and Tropical Medicine. International Programme for Ethics, Public Health and Human Rights. Available at: http://ipephlshtmacuk/. 2011 (Cited 3 April 2012).
32. Centers for Disease Control and Prevention. Public Health Ethics. Available at: http://wwwcdcgov/od/science/integrity/ phethics/. 2011 (Cited 3 April 2012).
33. Fry CL, Peerson A, Scully AM. Raising the profile of public health ethics in Australia: time for debate.Aust N Z J Public Health2004; 28: 13–5. doi:10.1111/j.1467-842X.2004.tb00625.x
34. Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous people James Anaya. (2010). Report to the fifteenth session of the Human Rights Council of the United National General Assembly. Addendum: Situation of indigenous peoples in Australia. Geneva: Office of the United Nations High Commissioner for Human Rights. A/HRC/15/37/ Add.4. Available at: http://daccess-ods.un.org/TMP/6261719. html (Cited 16 April 2012).
35. National Congress of Australia's First Peoples. Statement to the Senate Standing Committee on Community Affairs on conditions affecting Aboriginal communities in the Northern Territory including the proposed Stronger Futures in the Northern Territory Bill (2011) and accompanying Bills. Redfern: National Congress of Australia's First Peoples; 2012. Available at: http:// nationalcongress.com.au/wp-content/uploads/2012/02/ CongressStrongerFutures.pdf (Cited 16 April 2012

Public Health Ethics: some useful resources

Text books

- Bayer R, Gostin LO, Jennings B, Steinbock B, editors. Public Health Ethics: Theory, Policy and Practice. New York: Oxford University Press; 2006.
- Boston J, Bradstock A, Eng D. Public Policy. Why ethics matters. Canberra: ANU E Press; 2010. (Particularly chapters 1 & 3) Available at: http://epress.anu.edu.au/ ethics_matters_citation.html (Cited 23 January 2012).
- Dawson A, Verweij M, editors. Ethics, Prevention, and Public Health. New York: Oxford University Press; 2007.
- Gostin LO, editor. Public Health Law and Ethics: A Reader. Berkley, CA: University of California Press; 2002.
- Holland S. Public Health Ethics. Cambridge: Polity Press; 2007.
- Kerridge I, Lowe M, Stewart C. Ethics and Law for the Health Professions. 3rd ed. Sydney: Federation Press; 2009 Nuffield Council on Bioethics. Public Health: ethical issues. London: Nuffield Council on Bioethics; 2007. Available at: http://www.nuffieldbioethics.org/publichealth (Cited 23 January 2012).

Articles

- Bayer R, Fairchild AL. The genesis of public health ethics. Bioethics2004; 18(6): 473–92.
- Childress JF, Faden RR, Gaare RD, Gostin LO, Kahn J, Bonnie RJ, et al. Public health ethics: mapping the terrain. J Law Med Ethics2002; 30: 170–8.
- Giacomini M, Kenny N, DeJean D. Ethics frameworks in Canadian health policies: Foundation, scaffolding, or window dressing? Health Policy2009; 89: 58–71.
- Kass NE. An ethics framework for public health. Am J Public Health2001; 91: 1776–82.
- O'Neill O. Public health or clinical ethics: thinking beyond borders. Ethics Int Affairs2002; 16: 35–45.
- Slomka J, Quill B, desVignes-Kendrick M, Lloyd LE. Professionalism and ethics in the public health curriculum. Public Health Rep2008; 123(Supp 2): 27–35.
- Thomas JC, Sage M, Dillenberg J, Guillory VJ. A code of ethics for public health. Am J Pub Health2002; 92(7): 1057–9.
- Upshur R. Principles for the justification of public health intervention. Can J Pub Health2002; 93(2): 101–3.

Web sites

- National Health and Medical Research Council, Health Ethics, Australia. http://www.nhmrc.gov.au/health-ethics
- Nuffield Council on Bioethics. http://www.nuffield bioethics.org/public-health Public Health Ethics [Specialist journal). http://phe.oxford journals.org/

Further resources on specific public health ethics issues

Public health ethics and human rights

- Mann JM. Medicine and Public health, ethics and human rights. The Hastings Centre Report 1997; 27: 6–13.

Public health ethics and justice

- Anand S, Fabienne P, Sen A, editors. Public health, ethics and equality. Oxford: Oxford University Press; 2004.
- Daniels N. Just health: meeting health needs fairly. New York: Cambridge University Press; 2008.
- Kass NE. Public health ethics from foundations and frameworks to justice and global public health.J Law Med Ethics 2004; 32: 232–42.

Public health ethics and vaccination

- Omer SB, Salmon DA, Orenstein WA, M. deHart P, Halsey N. Vaccine refusal, mandatory immunization, and the risks of vaccine-preventable diseases. N Engl J Med 2009; 360: 1981–8.

Public health ethics and health promotion

- Holm S. Obesity intervention and ethics. Obesity Rev 2007; 8 (Suppl 1): 207–10.
- Mittelmark MB. Setting an ethical agenda for health promotion. Health Promot Int2008; 23(1): 78–85.