

REVIEW

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## Ethical Dilemmas in Protecting Individual Rights Versus Public Protection in the Case of Infectious Diseases

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**Abstract:** Infectious diseases—including emerging and re-emerging diseases such as Ebola and tuberculosis—continue to be important causes of morbidity and mortality in the globalizing, contemporary world. This article discusses the ethical issues associated with protecting the rights of individuals versus the protection of the health of populations in the case of infectious diseases. The discussion uses the traditional medical ethics approach together with the public health approach presented by Faden and Shebaya.<sup>3</sup> Infectious diseases such as Ebola hemorrhagic fever, Nipah virus and HIV/AIDS (together with tuberculosis) will be used to illustrate particular points in the discussion.

**Keywords:** ethics, individual rights, public protection, infectious diseases

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## Introduction

In spite of the so-called Epidemiological Transition, infectious diseases remain important as causes of morbidity, mortality and losses in productivity and economy in both developed nations as well as developing nations. HIV/AIDS and co-morbid conditions such as tuberculosis continue to be significant challenges to public health authorities in many countries. Ebola hemorrhagic fever is a continuing threat in eastern Africa, partly because of its virulence and high case fatality rate.<sup>1</sup>

The control of infectious diseases necessitates public health interventions that often infringe on the rights of individuals. This is unavoidable because such diseases can spread from the infected individual to other people, with the young, the elderly and the immuno-compromised at higher risk. As such, it is necessary to have a clearer understanding of the ethical dilemmas involved in respecting individual rights versus protection of the general public when it comes to the prevention and treatment of infectious diseases, and control (or even eradication) of such diseases and their outbreaks.

## Approaches to Dealing with Ethical Issues Related to Infectious Diseases

This discussion will use the traditional medical ethics approach<sup>2</sup> together with the broader public health framework presented by noted public health ethicist Ruth Faden and her co-author Sirine Shebaya,<sup>3</sup> published in the Stanford Encyclopedia of Philosophy, for analysis of the ethical issues associated with individual rights versus public protection in dealing with infectious diseases.

The traditional biomedical ethics approach emphasizes four dimensions, ie, autonomy, beneficence, nonmaleficence, and justice. The focus is on the individual. The Faden-Shebaya framework focuses on groups and larger populations, and includes the following:

- Overall benefit to society
- Collective action
- Communitarianism
- Fairness in distribution of burden (across social groups)
- Harm Principle
- Paternalism

- Liberty-limiting continua
- Social justice/fairness (across social groups)
- Global justice

## Ethical Issues

### Autonomy

The individualistic approach to “autonomy” places primary emphasis on the liberty, privacy and informed consent of individual persons in the face of a health intervention carried out by other parties. Libertarians also include economic rights (ie, the right to own property and engage in market transactions) as part of the autonomy of the individual.

Public health interventions, eg, immunization to prevent infectious disease often infringe on the rights of individuals. Should an individual have the right to reject compulsory vaccination? What if the religious beliefs of a particular individual compels him or her to reject a specific health intervention, for example, if a Muslim rejects a specific vaccine in the belief that it was derived from an “unclean animal” such as the pig?

In developed countries such as the United Kingdom, where presumably the population is relatively well educated, some parents have opposed the compulsory immunization of their children with the MMR (measles, mumps and rubella) vaccine because they believe that it has a link to autism.<sup>4</sup> How should the public health authorities react in the face of such a phenomenon? Especially when the scientific consensus is that there is no such link?<sup>4</sup>

Protection of the privacy of individuals is a major challenge in the treatment and control of infectious but highly stigmatizing, sexually-transmitted diseases such as HIV/AIDS. In contact tracing, it is necessary to get the names and other personal details of the sexual partners of the affected individual.

### Beneficence

Healthcare professionals, doctors especially, are taught the principle of beneficence—actions done for the benefit of others—early in their careers. Public health interventions are often carried out with the justification of doing good, ie, protecting the welfare of the public. This is perhaps the strongest argument in favor of intrusive public health interventions such as compulsory vaccination against particular contagious diseases.



## Nonmaleficence

“Nonmaleficence” means the principle of not doing harm to other individuals. It is a fact that some vaccines can have adverse effects on a very small number of individuals. In such cases, it would seem that such individuals should be compensated for the physical harm done to them because of compulsory vaccination. If so, how should they be compensated? Should their lifelong costs of follow-up medical treatment be borne by the public authorities? What about other costs such as costs of special schooling, inability to work, psychological distress in close relatives, etc?

## Justice (from the point of view of individuals)

The biomedical ethical principle of justice argues that there should be fair treatment of individuals. Similarly, there should be fairness in the distribution of costs and benefits with respect to individuals as a result of public health interventions. Once again, ethical dilemmas are to be found here. For example, it is a fact that the promotion of condom use is an effective tool in the battle against sexually-transmitted diseases. However, what if an individual objects to this because the individual is a devout Roman Catholic and feels strongly that his or her tax-payer dollars should not be used to fund such promotions?

As another example, needle exchange and other “harm reduction” programs have been shown to be effective in fighting against substance abuse (through the injection of drugs)<sup>5</sup> as well as reducing transmission of HIV. What if individuals object because they do not want their tax dollars to fund what they consider to be programs that “condone” rather than punish illegal drug use?

## Overall benefit to society

Proponents of intrusive public health interventions often argue that such interventions are justified because of the overall benefits to society. Hence, we have programs such as compulsory vaccination schedules for children, with non-compliance being punished by exclusion of unvaccinated kids from public schools.

Ethical questions to be pondered here include the question of overall costs (both direct as well as indirect) versus overall benefits, the distribution of costs and benefits across social groups, and benefits arising now versus benefits arising later. Economists would

argue that benefits arising now should be valued more highly than benefits arising later.

## Collective action

Public health interventions to prevent infectious diseases or to stop an infectious disease outbreak can be considered to be examples of collective action. Economists have been prominent in discussing issues associated with collective action. These issues include the “public goods” problem and the challenge of the “free rider”. Public goods are non-excludable, ie, it is very difficult to exclude free riders from enjoying public goods even if they have not paid for the production and supply of such goods (such as through avoidance of payment of taxes and fees). Public goods are also non-rivalrous, ie, the consumption or use of such goods does not reduce their availability to others.

In order to tackle the free rider problem, collective action needs to involve mandatory involvement by all citizens or a designated group of citizens. In the face of urgent situations such as the outbreak of a new infectious disease of unknown etiology but high virulence such as the Nipah virus, the justification for compulsion is strengthened, eg, mass culling of pigs, and strong restrictions on the movement of pigs out of affected areas.<sup>6</sup>

## Communitarianism and fairness in distribution of burden (across social groups)

According to Faden and Shebaya,<sup>3</sup> “communitarianism” is the idea that what is good for the whole is good for its parts. They give the example of Japan where compulsory vaccination of kids is carried out in order to protect the elderly who are more likely to experience greater morbidity and mortality from outbreaks of seasonal influenza.<sup>7</sup> This is an interesting example. However, one must remember that the people of Japan are more group-oriented in their thinking as compared to more individualistic cultures such as the people of the USA. The use of the communitarian argument to justify compulsory public health interventions are likely to be much less effective in more individualistic societies.

## Harm principle

The Harm Principle argues that one ought to prevent harm from occurring to others. In public health, the



Harm Principle has been used to justify drastic actions such as the quarantine, isolation, and compulsory treatment for highly infectious diseases. We ought to remember that a broad definition of harm includes not only physical harm but also psychological harm (such as violation of strongly-held cultural and religious beliefs) and economic harm. Thus, when the mass culling of pigs was carried out in Malaysia in order to stop the Nipah virus outbreak of the late 1990s, non-Muslim soldiers were used instead of Muslim soldiers. Unfortunately, the mass culling caused economic harm to the pig farmers in that compensation for each pig slaughtered was below market value and many pig farmers lost their livelihood and had to move into other areas of economic activity.<sup>8</sup>

### Paternalism

Paternalism refers to the idea that sometimes action needs to be taken by the authorities to protect the health and welfare of people (against their will). Faden and Shebaya noted that paternalism can come in different varieties. For example, “soft paternalism” occurs in cases where the targets of paternalism suffer from cognitive disability, immaturity, ignorance, or the holding of false beliefs, and “libertarian paternalism” occurs when an effort is made to influence choice through persuasion and not through the use of force or compulsion.<sup>9</sup> It seems logical to argue that libertarian paternalism should be the preferred choice for action unless circumstance compel the public health authorities to engage in stronger forms of paternalism.

### Liberty-limiting continua

The Nuffield Council of Bioethics’ “ladder of intervention” posits that interventions can range from the least intrusive (doing nothing) to the most intrusive (compulsory for all citizens or designated group of citizens).<sup>10</sup> There is also a continuum in terms of the infringements of interventions on liberty of individuals and social groups.

This concept is certainly applicable to public health interventions with respect to infectious diseases. The degree of intrusiveness and the strength of the intervention (degree of compulsion) should be related to infectivity, virulence, and urgency. Highly infectious diseases such as HIV/AIDS should be handled differently than less infectious diseases such as leprosy.

Similarly, highly virulent diseases such as Ebola hemorrhagic fever should be handled differently than less virulent diseases such as the common cold.

However, some have pointed out that perhaps there has been too much focus on individual responsibility, while corporate responsibility for ill health has been underemphasized. For example, unhygienic “factory farming” of chickens and cattle is a cause of the spread of gastro-intestinal diseases and the appearance of antibiotic-resistant strains of bacteria.<sup>11</sup> Thus, it can be argued that the concept of liberty-limiting continua should also be applicable to corporate entities.

### Social justice/fairness (across social groups)

Proponents of the concept of “social justice” tend to promote the idea of a “right to health” and that there should be public action to promote access to basic health services, including access to free vaccinations against common childhood infectious diseases. They argue that such actions will help to narrow what they consider to be unjust inequalities between social classes. There are also long-term benefits of free childhood vaccinations because poor health during childhood can significantly affect health during the adult years.

However, it has been recognized that care must be taken so that there is no stigmatization of users of public health services and facilities. Therefore, targeted, means-tested programs should be avoided wherever possible to deter stigmatization.<sup>12</sup>

### Global justice

In the face of our contemporary globalizing world, an issue of justice across nations and geographical regions has arisen. Outbreaks of emerging infectious diseases have indicated that epidemics can cross national borders easily and quickly. Thus, the developed nations should assist the developing nations in the control of infectious disease outbreaks since population movements (tourists and other short term visitors, legal immigrants, undocumented-illegal immigrants, refugees, etc.) can help infectious organisms to extend their range.

This should include the control of “neglected diseases” that are infectious. This is especially so in our era of mass tourism, especially ecotourism, which increase the risk of spread of zoonotic diseases.



The differential pricing of proprietary drugs needed to treat infectious diseases across different nations should also be regarded as an ethical issue. There is little moral justification for pricing proprietary drugs at much higher levels in poorer developing countries as compared to richer developed countries.

In conclusion, there is basic underlying tension between individual rights and protection of public health and public welfare in the prevention, treatment and control (or even eradication) of infectious diseases. In this article, an attempt has been made to discuss some of these ethical dilemmas by using the traditional biomedical ethics approach as well as the Faden-Shebaya public health ethics framework. Nevertheless, the following questions must always be kept in mind when public health interventions are carried out: Has too much power been given to the public health authorities? Is there enough democratic accountability for actions and their consequences? Will those who have to bear a disproportionate burden of the risks and costs (physical, economic, psychological, social eg, stigmatization) incurred be adequately compensated?

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