**A CRITICAL REVIEW ON ISOLATION, QUARANTINE, SOCIAL-DISTANCING AND TRAVEL RESTRICTION AS THE MEASURES TO CONTROL PANDEMIC DISEASES**

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This research paper has not been funded by any Government or Non-Government organization, it has been written only from the pure academic interest.

Abstract: Isolation, quarantine, social-distancing and travel restriction are the low cost, low tech and the oldest emergency measures to control any kind of new outbreak of pandemic diseases. It was thought that the power of these tools was blunted, in this highly technological era, because any kind of war against pandemic diseases was seemed about to be stopped. But after the outbreak of the new pandemic disease caused by Corona virus, these oldest techniques have been applied by most of the countries to reduce the communicability of this disease. But the expected result may not be the same. This paper argues for the implementation of these emergency tools from the perspective of the argument based on effective evidence and ethical frame work.

Key words: pandemic, measures, ethical, effective, evidence, result.

Modern bioethics, which concerns itself with ethical issues both within and beyond of clinical medicine, consists of a wide range o f theories including virtue ethics, feminist ethics, and utilitarianism (to name a few), all of which may have some relevance to public health ethics.[[1]](#endnote-1)— R.E.G. Upshur.

In the field of biomedical ethics, infectious diseases deserve great importance mainly for i) the unrivalled consequences, for example, the recorded numbers of death caused by infectious diseases much higher than the death in war, ii) the measurements which are taken to control these diseases for the sake of greater public health interest may go against the basic human rights (freedom of movement, privacy), iii) the duties of a state towards its citizen and the duties of the developed countries to the developing countries, or in other words, the concept of justice comes under the question marks, when the poor people or the poor countries, being the victim of malnutrition, are affected in large scale by the infectious disease in respect of the developed country or rich people, and iv) the infectious diseases being international becomes the subject of global ethics.

Among the points mentioned above, the point number two seems to be given much attention as it is concerned with a public health policy and directly related to the process how to control a new outbreak of infectious disease. When the drugs and the vaccines against any new outbreak of infectious disease is yet to be discovered by the scientists, the acceptable and possible ways of controlling the said disease are isolation, quarantine, social-distancing and travel restriction. Travel restriction violets the right to freedom of movement of individual citizen. The right to privacy is lost when a person is detected as infected by the third party and is sent to quarantine. Mandatory treatment and vaccinations also go against the consent of the citizens. Moreover, due to panic in pandemic situation, the targeted persons may tag along the hiding tendency, because of quarantine and/or social stigma. Now the issues are: i) what are the ground of the imposing quarantine, isolation, social distancing and travel restriction? ii) what are the moral justifications of the implementation of such measurements in order to mitigate the pandemic diseases? iii) as the implementation of isolation, social distance, quarantine and the restriction of travel for a limited period may be the cause of huge amount of economical degradation and/depression in near future, the state should be conscious about getting hundred percent result i.e. to make sure that the outbreak of pandemic disease will be ceased to be exist within the period of lockdown even by applying the police or military forces. In fact, when public health issues are treated as the security threat of a country, there is no other ways but to apply the force to its own citizen. iv) as it is the compulsion of the state to go for better public health interest, how far the state should be rigid to implement the said measures at the time of the new outbreak of pandemic diseases.

Though isolation, quarantine, social-distancing and travel restriction are the oldest tools to reduce any kind of new outbreak of pandemic diseases; these are to be implemented very carefully, otherwise there is a possibility of getting the adverse result. The aim of this article to argue for the imposing of these measurements strictly, but for a certain period, after the outbreak of any pandemic diseases included Novel Corona Virus recently, through coercion by the state if needed, based on (A) Arguments from the Past Experiences i.e. the adequacy of the evidence of the effectiveness of an intervention[[2]](#endnote-2) of these measures to attain public health goal and (B) Arguments from the Ethical Frame Work. Arguments in (A) category are may be treated as direct arguments as these are based on past events and experiences, on the other hand, the arguments in category (B) may be considered as indirect arguments, because it is presupposed on a principle: any kind of public health policy emerges out of ethical frame work.

Before addressing these arguments, let us peep into (i) the meaning of the terms isolation, quarantine, social-distancing and travel restriction, (ii) the conditions in which the quarantine should be implemented, and (iii) a brief history of Corona outbreak and its distinctive terrifying features.

(i)

The term isolation means the separation, for the period of communicability, of infected persons (confirmed or suspected) in such places and under such conditions as to prevent or limit the transmission of the infectious agent from those infected to those who are susceptible or who may spread the agent to others.[[3]](#endnote-3) On the other hand, by the word quarantine stands for the restriction of the movement of healthy persons who have been exposed to a suspected or confirmed case of infection with a highly communicable disease during the likely infectious period.[[4]](#endnote-4) It is actually applied as a safety measure to prevent further spread of infection. The expression social-distancing refers to a range of community based measures to reduce contact between people (e.g. closing schools or prohibiting large gatherings). Community-based measures may also be complemented by adoption of individual behaviours to increase the distance between people in daily life at the worksite or in other locations (e.g. substituting phone calls for face-to-face meetings, avoiding hand-shaking).[[5]](#endnote-5)International travel and border controls represents that kind of measures which are designed to limit and/or control the spread of infection across entry points to a country (by road, air, sea, etc). They can include travel advisories or restrictions, entry or exit screening, reporting, health alert notices, collection and dissemination of passenger information, etc.[[6]](#endnote-6)

(ii)

Though the meanings of isolation, quarantine, social-distancing and travel restriction are different, these techniques are applied to control any kind of newly out break pandemic disease. In fact, these measures are complement to each other. Quarantine cannot be imposed unless the targeted persons are isolated and by the by the social-distancing and travel restriction are followed. The conditions in which the isolation, quarantine, social-distancing and travel restriction should be implemented are as follows:

**Condition-1:** The application of mandatory quarantine is possible only when travel is restricted fully i.e. implementation of quarantine limits the rights of the individual citizen which goes against the rights of citizen. That is why state may go for an alternative, at least in the initial level, for voluntary quarantine.

**Condition-2:** Employment of quarantine, being one of the extreme measures of controlling newly outbreak excessively contagious diseases, it should be implemented by taking too much precautions as the result of imposing quarantine is depended on the other factors also. These other factors should also be handled carefully; otherwise fruitful result will not be expected. Among these factors, the developing of sufficient isolation centres within a very short period is necessary, the isolation of suspected infected person is mandatory, the available treatment of the infected person should be guaranteed and rapid taste of detecting the infected persons is essential.

**Condition-3:** Quarantine should be implemented in an equitable manner. It means those who belong to the elite classes in the society and those who belonged to the marginalized classes in the society are to follow the rules of quarantine in the same manner following the rules as imposed by the state. None can violet the rules of quarantine.

**Condition-4:** The implementation of quarantine is no doubt brings some burden to the people. Before the implementation of quarantine the state should take some other measurement how to minimise these burden. The state should be responsible to provide food, water, medicines, sanitizer etc. for each and every citizen in the time of lockdown.

**Condition-5:** It is the duty of the state to give the preferences for them who follow the restrictions of quarantine. This point needs explanation. Suppose, there is a limited number of vaccines and that are to be applied to the citizens. In that case, those citizens who follow the restriction must be preferred.[[7]](#endnote-7)

(iii)

Among the infectious diseases AIDS, infectious disease caused by the Ebola virus, different types of influenza are common. But the infectious disease caused by COVID -19 is different from others. Following the report of the WHO dated 20th January, 2020 it was revealed that on 31 December 2019, the office of the WHO of China was informed about 44 cases of pneumonia detected in Wuhan City, Hubei Province of China. The cause of this pneumonia was unknown. When the Chinese authorities indentified that NOVEL CORONA virus was the cause of the said pneumonia on 7th January, 2020 the CORONA outbreak had already been associated with exposures in one sea food market in Wuhan City. The virus was so contagious that the first imported case of lab-confirmed NOVEL CORNA from Wuhan, Hubei Province, China was found in Thailand on 13th January, 2020, in Japan on 15th January 2020, in Republic of Korea on 20th January. From the updated report made by WHO on 20th January, 2020 it was informed that the total number of confirmed cases were 282 (In China 278 cases, in Thailand 2 cases, in Japan 1 case and the Republic of Korea 1 case). In India, on 3rd April, the confirmed COVID-19 positive cases was 507 along with 14 deceased cases which has been changed to the number of 3,33,257 (positive) 1,69.817 (recovered) with a number of 9,524 deceased case as on 14.06.2020(03:12GMT)(covid19India.org). In the whole world the total positive cases are 80, 13, 358, recovered 41, 37, 226(recovered) and 4, 35,977 (deceased) (worldometer.info).

**(IV)**

**(A)**

**ARGUMENTS FROM THE PAST EXPERIENCES I.E. THE ADEQUACY OF THE EVIDENCE OF THE EFFECTIVENESS**

**Effective Evidence-1:** The Black Death (1347-1353) or Bubonic plague was estimated to have killed 30% to 60% of Europe population. It was too much terrifying and indiscriminately contagious, “the mere touching of the clothes”, wrote Giovanni Boccaccio, an Italian poet “appeared to itself to communicate the malady to the toucher.” Even a person who was perfectly healthy when she or he went to bed at night could be dead by morning. It is evident that the plague never ended, it returned again after few years later with a vengeance. One of the most powerful ways to control the plague was isolation. The ‘officials in the Venetian-controlled port city of Ragusa were able to slow its spread by keeping arriving sailors in isolation until it was clear they were not carrying the disease—creating social distancing that relied on isolation to slow the spread of the disease.’ Still now the sailors are initially held on their ships for 30 days, which is later increased to 40 days, or quarantine.*[[8]](#endnote-8)*

**Effective Evidence-2:** When Cholera, the ‘Asiatic Disease’ reached Europe through steam ship in 1830, it became pandemic in a short period through the rail way traffic. Any medicine was impotent against Cholera. “During the first wave of cholera outbreaks, the strategies adopted by health officials were essentially those that had been used against plague.”[[9]](#endnote-9) New lazarettos were established in the port. The ships were not permitted to enter in the European port having ‘unclean licenses’[[10]](#endnote-10) i.e. ships arriving from regions where cholera was present. In cities, the social interventions and the traditional health measurements were applied by the authorities. For example, travellers who had a close contact with infected persons or who came from a place where cholera was present were isolated and quarantined. The sick persons were forced into lazarettos.

**Effective Evidence-3:** When it seemed that the combat against infectious diseases was about to be won, and the old health practices such as quarantine or travel restriction would only be remembered as historical documents, the nations forcefully implemented all over again these so called emergency measures against the tremendous health challenge, the 1918 influenza pandemic, which struck the world in 3 waves during 1918–1919 and this flu epidemic killed between 20 and 100 million people.

**Effective Evidence-4:** At the time of the Ebola outbreak (2014-2015) when there was no available vaccine to control the disease isolation and quarantine were widely used to reduce Ebola transmission in West Africa. Over 970 inhabitants of Sella Kafta, a village in Sierra Leone, were placed under quarantine for 3 weeks after the confirmation of the death of a 67 years old woman caused by Ebola virus. Not only not the administration of Sierra Leone imposed a curfew through which the people of that area were not allowed to move one house to another but also ensured about the food, water supply, social support, educational support for children, “solar powered telephones and assistance with farms so that corps were not left to rot during the grown season”[[11]](#endnote-11) in order to get expected result of this measurement quarantine to control the outbreak. Kambia’s chief administrator, Alhaji Abu Bangura, informed the local Africa independent radio station that the area was alert in order to ensure that the virus did not spread.[[12]](#endnote-12)

One may go against the imposition of these measures on the ground of effective evidence. There may be doubt regarding ground of adequacy of the evidence of the effectiveness of an intervention of these measures to attain public health goal. Joseph Barbera, Anthony Macintyre, Craig DeAtley, Larry Gastin, Tom Inglesby, Tara O’Toole, Kevin Tonet and Marcy Lay ton in their paper *Large-Scale Quarantine following biological terrorism in the United States: Scientific Examination, logistic and legal limits, and possible consequences* argues that the effectiveness of quarantine is questionable in the ground that there is no supporting evidence of the implementation of quarantine in a large scale though “it has been used on a small scale in biological hoaxes, and it has been invoked federally sponsored bioterrorism exercise.” They concluded that the arguments from the evidence of effectiveness are neither justifiable nor feasible as there is no conclusive effective evidence of implementing quarantine in a large scale.

The conclusion made by Joseph Barbera, Anthony Macintyre, Craig DeAtley, Larry Gastin, Tom Inglesby, Tara O’Toole, Kevin Tonet and Marcy Lay is not totally acceptable. It is just a hypothesis and its credibility has not been tested through empirical evidences. It is true that these measures are yet to be implemented in large scale, but that does not mean these measurements lost their feasibilities. In fact, the arguments from the evidence of effectiveness are not the sufficient conditions to implement the quarantine and travel restriction measures in case of large scale. None can deny that these measures help to reduce the rate of infection for a certain period. Furthermore, none can predict the possibilities of the invention of the requisite vaccine or antidote could not be invented in that period. That’s why Cécile M. Bensimon and Ross E.G. Upshur rightly remarked;

The decision to implement a system of quarantine cannot be justified or grounded in the notion of effectiveness simply determined in scientific terms. Uncertainty is never fully resolved, and as such, evidence-based decision making ought to be used to reflect on what constitutes a reasonable and well-justified decision—not because it was scientifically measured or objectively assessed but because it can serve as a process of reasoned or deliberated justification, a process that would serve us well in making public health decisions and justifying the use of restrictive measures during public health emergencies.[[13]](#endnote-13)

**(B)**

**ARGUMENTS FROM THE ETHICAL FRAME WORK**

Isolation, quarantine, social-distancing and travel restriction are imposed only when the new outbreak of a pandemic disease creates too much uncertainty and fear due to the failure of encompassing scientific measurements i.e. vaccinations, antidotes etc. At that time, imposing of isolation and quarantine may act as the creator of social stigma which generates the tendency of suppressing fact among the targeted public. This tendency may produce terrifying adverse result. That is why these measures must be based and cultivated through the strong ethical frame work to generate trust among the public. Martin Cetron and Julius Landwirth in this regard, rightly pointed out—

‘Past experience has shown that voluntary cooperation and public trust are key ingredients of successful response to a public health emergency. They may be important antidotes to individual fear and community panic that may be engendered by infectious disease outbreaks. Careful attention to the ethical values at stake in public health decision making can help foster voluntary cooperation and public trust and should be a part of state and federal pandemic preparedness planning.’[[14]](#endnote-14)

Public trust will be ascertained only when the public health policy is distilled through an ethical frame work. A simple but significant argument can be put forwarded for the implementation of these measures to control the newly outbreak pandemic diseases:

Any public health policy should be followed by the public.

Isolation, quarantine, social-distancing and travel restriction or lockdown are public health policies.

Therefore, isolation, quarantine, social-distancing and travel restriction or lockdown should be followed by the public.

The above mentioned argument is valid following the rules of formal logic, but it is based on some conditions. If these conditions are fulfilled then everyone ought to follow the conclusion. Condition-1: Morality and public health policy are interrelated, Condition-2: Public health policy must be grounded on Ethical frame work.

Condition-1: Morality and public health policy are interrelated

It has been mentioned that isolation, quarantine, social-distancing and travel restriction are the well known and acceptable measures to control any kind of new outbreak of pandemic disease. These are also the public health policies to control the pandemic diseases which are encompassed by the state. One may argue that there is no immediate connection between, morality and the health policies taken by state, because there are many cases which are morally wrong but the states are to frame and develop health policies and there are many cases which are morally right but the states is reserved to frame any policy.

For example, one can argue without inconsistency that sterilization and abortion are morally wrong but that the law should not prohibit them, because they are fundamentally matters of personal choice beyond the legitimate reach of government (or, alternatively, because many persons would seek dangerous and unsanitary procedures from unlicensed practitioners). Similarly, the judgment that an act is morally acceptable does not imply that the law should permit it. For example, the belief that euthanasia is morally justified for terminally ill infants who faces uncontrollable pain and suffering is consistent with the belief that the government should legally prohibit such euthanasia on grounds that it should not be possible to control abuses if it is legalized.[[15]](#endnote-15)

But these types of arguments do not reject the need of ethical ground when a public health policy is considered, because public health is primarily concerned with the health of the entire populations. There is a difference between public health and clinical care[[16]](#endnote-16). Public health should not be treated merely as doctor patient relationship, because medicine is applied to cure an individual patient, whereas “the public health aims to understand and ameliorate the causes of disease and disability in a population.”[[17]](#endnote-17) Moreover, public health policy involves interactive relationships among many professionals, community members, non government organizations and as well as government agencies for the development, implementation, and assessment of interventions. It emphasises on (a) the promotion of health, (b) the prevention of disease, (c) the collection and use of epidemiological data, and (d) population surveillance. Moreover, it depends on various forms of empirical quantitative assessment and an identification of the multidimensional nature of the determinants of health. In fact, it focuses on the complex interactions of many factors — biological, behavioural, social, ethical and environmental — in developing effective interventions.

Condition-2: Public health policy must be grounded on Ethical frame work.

In fact, there is a strong connection between morality and the health policies; but this connection is undoubtedly complex and situation based. However, the Biomedical ethics considered four clusters of principles—(a) the principle of autonomy or respect for autonomy: it is a norm of respecting and supporting autonomous decisions rooted in both moral and political traditions, (b) non-maleficence: it is a norm of avoiding the causation of harm to the patient by the doctor, (c) beneficence: it is a group of norms pertaining to relieving, lessening, or preventing harm and providing benefits and balancing benefits against risks and costs, and (d) justice: it is a group of norms for fairly distributing benefits risks, and costs that is to say similar cases should be treated similarly in case of implementing any public health policies.[[18]](#endnote-18)

These ethical principles based frame work of Beauchamp has been challenged on the ground that (i) these four principles are not equally strong; and (ii) these four principles are not enough. The first challenged has been thrown by Soren Holm. He said that Beauchamp’s principles are based on common-morality[[19]](#endnote-19) theory instead of any kind of fundamentalism, that’s why it is applicable only to the American Citizens[[20]](#endnote-20). Moreover, these four principles are not equally important; “only one or two (i.e. autonomy and non-maleficence) are really important, when it comes to analysing bioethical problems.”[[21]](#endnote-21) The second challenge has been put forwarded by R.E.G. Upshur. He said, ‘The strength of a principle based approach is its heuristic nature and applicability to practice.’[[22]](#endnote-22) Following Gostin, he considered the distinction between the *ethics of public health* (concerned with the ethical dimensions of professionalism and moral trust that society invests in professionals to act for the common good) and *the ethics in public health* (which incorporate the ethical dimensions of public health enterprise; the moral standing of population’s health; trade-offs between collective goods and individual interests and social justice considerations)[[23]](#endnote-23). He said,

The principles have been distilled from a reading of the nascent literature in public health ethics. They seek to bring clarity to some of the ethical aspects of public health decision making in practice. The focus of these principles relates to the question of when public health action is justified. Hence, the locus of application of these principles is restricted to a specific, but significant domain. The principles articulated will not, for example, cover screening and prevention programs, health promotion programs or public health research.[[24]](#endnote-24)

Upshur talked about the Harm Principle, Least Restrictive or Coercive Means, Reciprocity Principle and Transparency Principle. Harm principle laid down by John Stuart Mill which is most probably the foundational principle for public health ethics in a democratic society. When any kind of restriction is imposed a government, or government agency on the liberty of individual or group is initially justified by this principle. Least Restrictive or Coercive Means guides the authority to encompass the right coercive measures in the right situation. More coercive methods are to be permitted only when less coercive methods have failed. Reciprocity Principle emphasises on the duties of the authority toward the citizens and vice versa. Transparency Principle refers to the ways in which decisions are taken. It must be clear, accountable and must be free from any kind of political interference, compulsion and the domination by specific interests. The decisions should be taken only when all the legitimate stakeholders are involved in the decision-making process, they should be given equal opportunity, and the manner in which decision-making is made should be as clear and accountable as possible.

From the discussion mentioned above it is clear that isolation, quarantine, social-distancing and travel restriction are the low cost, low tech and the oldest but very sensitive, emergency and stultifying tools to control any kind of new outbreak of pandemic diseases. In order to control the current pandemic disease caused by Corona Virus, most of the countries implemented these techniques. The applications of these tools are surely based on the strong ethical frame work. Ethical frame work is actually the combination of some ethical principles, some of which are emerged from the heart of the society (heuristic cum a-posteriori) and some of which are based on the intellectual capacities of the society (fundamental cum a-priori). The structure of the ethical frame work of any country is same i.e. constituted of heuristic cum a-posteriori and fundamental cum a-priori ethical principles. But the legitimacy of the application of these principles may vary; because it depends on some other factors also i.e. the time frame, risk factors, after effect, economical conditions, climate, mortality rate, actual data, health infrastructure, stability of the government, structure of the government etc. If these factors could be handled with great care, from a balancing approach, by all the stakeholders of a country for the sake of humanity then these old low cost and low tech measures can help us to survive from this current pandemic situation as like as the past.

1. Upshur, R.E.G: Principles for the Justification of Public Health Intervention, Canadian Journal of Public Health, 2002, P- 101 [↑](#endnote-ref-1)
2. Bensimon, Cecile M & Upshur Ross E.G.: Evidence and Effectiveness in Decision making for Quarantine, American Journal of Public Health, Vol. 97, 2007 [↑](#endnote-ref-2)
3. J, Last: A dictionary of epidemiology. 4th ed. Oxford, Oxford University Press, 2001 [↑](#endnote-ref-3)
4. Ibid. [↑](#endnote-ref-4)
5. Ethical considerations in developing a public health response to pandemic influenza, WHO/CDS/EPR/GIP/2007.2 [↑](#endnote-ref-5)
6. Ibid. [↑](#endnote-ref-6)
7. ‘...a related point is that those who endure quarantine for the benefit of society should be compensated in return. —Selgelid, Michael J: ‘Infectious Disease’ in *A Companion to Bioethics* (Second edition) *Edited by* Helga Kuhse and Peter Singer, Wiley Blackwell, West Sussex, 2009, p.436 [↑](#endnote-ref-7)
8. <https://www.history.com/topics/middle-ages/black-death> [↑](#endnote-ref-8)
9. Eugenia Tognotti: Lessons from the History of Quarantine, from Plague to Influenza A, Emerging Infectious Diseases • www.cdc.gov/eid • Vol. 19, No. 2, February 2013, p.256 [↑](#endnote-ref-9)
10. Tognotti E. The Asiatic monster. History of cholera in Italy [in Italian]. Roma-Bari (Italy): Laterza; 2000. [↑](#endnote-ref-10)
11. Stopping Ebola: It takes collaboration to care for a village, WHO, September, 2015 [↑](#endnote-ref-11)
12. Report of Agency France Press in Freetown dated 4th September, 2015. [↑](#endnote-ref-12)
13. Benison, Cécile M & Upshur, Ross E.G: Evidence and Effectiveness in Decision making for Quarantine, American Journal of Public Health, Supplement 1, 2007, Vol 97, No. S1, pp.47-48 [↑](#endnote-ref-13)
14. Cetron, Martin & Landwirth, Julius Public Health and Ethical Considerations in Planning for Quarantine Martin Cetron, Centersfor Disease Control and Prevention, National Center for Infectious Diseases, Division of Global Migration and Quarantine, 1600 Clifton Road, Atlanta, GA30333. <Tel:404-639-3311>; Email:mzc4@cdc.gov. Julius Land wirth, Yale University Interdisciplinary Center for Bioethics [↑](#endnote-ref-14)
15. Beauchamp, Tom, L & Childress, James, F: *Principles of Biomedical Ethics*, Oxford University Press, Newyork, 2013,p.10 [↑](#endnote-ref-15)
16. Upshur, R.E.G: Principles for the Justification of Public Health Intervention, CANADIAN JOURNAL OF PUBLIC HEALTH, 2002, p.101 [↑](#endnote-ref-16)
17. Childress, James F, Faden Ruth R, Gaare Ruth D, Gostine, Lawrence O, Khan Jeffrey, Bonnie Richard J, Kass Nancy E, Mastroianni, Anna C, Moreno Jonathan D, Nieburg, Philip: Public Health Ethics: Mapping the Terrain, *Journal of Law, Medicine & Ethics*, 30 (2002): pp.170–178. [↑](#endnote-ref-17)
18. Tom L. Beauchamp. “The ‘Four Principles’ Approach to Health Care Ethics” In Principles of Health Care Ethics, 2nd ed, eds. Richard Edmund Ashcroft, Angus Dawson, Heather Draper, John McMillan (West Sussex: John Wiley, 2007). 143-150, p.144 [↑](#endnote-ref-18)
19. The fact that common-morality theory necessarily uses the shared morality in a specific society as its basic premise, is often overlooked by both proponents and opponents of the four principles. Soren Holm in Not just autonomy - the principles of American biomedical ethics, J Med Ethics: first published as 10.1136/jme.21.6.332 on 1 December 1995,p.333 [↑](#endnote-ref-19)
20. Because the theory of PBE4 is developed from American common morality (and in reality only from a subset of that morality) it will mirror certain aspects of American society, and may, for this reason alone, be un-transferable to other contexts and other societies. Ibid.p.333 [↑](#endnote-ref-20)
21. Holm, Soren: Not just autonomy - the principles of American biomedical ethics, J Med Ethics: first published as 10.1136/jme.21.6.332 on 1 December 1995,p.333 [↑](#endnote-ref-21)
22. Upshur, R.E.G: Principles for the Justification of Public Health Intervention, Canadian Journal of Public Health, 2002, p.101 [↑](#endnote-ref-22)
23. Gostin L.O. Public health, ethics, and human rights: A tribute to the late Jonathan Mann. J Law Med Ethics 2001;29(2):pp.121-30 [↑](#endnote-ref-23)
24. Upshur, R.E.G: Principles for the Justification of Public Health Intervention, Canadian Journal of Public Health, 2002, p.101

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