

“Legal Framework of Action for Recurring Epidemic Diseases: India and International; With reference to Current Corona Outbreak”

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ABSTRACT

The present article talks about the epidemics that keep hitting the mankind repeatedly over the years. By far we had been hit by various epidemics, but this time we were hard hit by the present virus attack, which shook the mankind and make us stand in a position where we ask ourselves, How prepared we were to deal with the crisis that hit the world today in the form of Coronavirus? Article deals with the collective effort by whole world against this new type of enemy. It not only talks about the local legislative actions by the country but at international level also policies and action frameworks being developed. It talks about Pharmaceutical and Non Pharmaceutical actions interventions to stop the spread of disease. It is necessary that we should be prepared not medically but also legislatively to cope and fight such danger in future. In the article we talked not only about current legislative provisions but also about their drawbacks and how governments are constantly improvising. It also traces back the history of non Pharmaceutical measures like lockdown, quarantine, social distancing etc which are most effective ways to stop the spread of such dangerous disease, because no vaccination till date has been discovered for Coronavirus. It may so happen that such epidemic may persist or we may again hit hard by another such epidemic. So we must be prepared for such things in future. Only collective efforts by the world together can help us stand against such epidemic.

INTRODUCTION

In the past India has witnessed many large outbreaks of emerging and re-emerging infectious diseases. The outbreak of a cholera epidemic due to the O139 strain in 1992, that of plague in Surat in 1994, the large-scale spread of chikungunya and dengue fever, and that of avian influenza (H5N1) and pandemic H1N1 influenza were some which caused widespread havoc. The resurgence of diphtheria, and the outbreaks caused by the Nipah, Chandipura and Japanese encephalitis viruses and Crimean–Congo hemorrhagic fever also posed a threat to the country's public health in the last decade. The emergence of drug-resistant tuberculosis and malaria and New Delhi Metallo-beta-lactamase (NDM-1) resistant organisms is also a matter of concern for the country. As in any other country, diseases with the potential for international spread, such as Ebola virus disease and Zika virus, also pose threats to the public health security of India. Different states have made many diseases notifiable under

various public health acts. Tuberculosis has been made a notifiable disease recently by the Government of India.¹

Epidemics are sparked either by the re-emergence of pathogens that have been familiar for a long time, immunologically vulnerable populations, or are newly-emerging ones. They come in various species of bacteria, viruses, fungi and parasites. Some are air borne, Water borne, spread by food or by human touch. As noted earlier, 70% of emerging human pathogens come from animals. Like MERS (Middle East respiratory syndrome) is a respiratory disease caused by a Coronavirus whose reservoir is a dromedary camel. Humans can be infected through direct or indirect contact with infected dromedary camels and potentially from camel products. MERS Coronavirus (MERS-CoV) infection is a notifiable disease under the International Health Regulations (2005). Nevertheless, more research is needed to identify precisely the modes of transmission and medical countermeasures. Today's harsh reality is that there is as yet no vaccine or treatment for most emerging diseases.

History has shown pandemics occur at 10 to 50 year intervals, with varying severity and impact. During the 20th century, there have been three influenza pandemics (in 1918, 1957 and 1968). Influenza viruses are very unstable and constantly mutating. They undergo small mutations (antigenic drift) and cause Seasonal influenza epidemics and out-of-season outbreaks. But a substantial change (antigenic shift) can occur at any time. It will result in a new virus (different subtype) which may lead to a pandemic.

There are three necessary factors for the emergence of Pandemic influenza:

- A new influenza virus emerges and causes illness in humans;
- This virus has the ability to cause sustained human-to-human transmission;
- Human population has little or no immunity to the virus.

Because it is a new virus to which people have not yet been exposed, the population has no or little immunity and the virus is able to spread quickly and cause illness in people.

A Pandemic influenza virus may arise when:

- Genes from animal and human influenza viruses mix together to create a human-animal influenza reassortant virus (genetic-assortment);
- Genes in an animal influenza virus change allowing the virus to infect humans and transmit easily among them (genetic mutation).²

If we talk about current epidemic, Cases of Covid-19 first emerged in late 2019, when a mysterious illness was reported in Wuhan, China. The cause of the disease was soon confirmed as a new kind of Coronavirus, and the infection has since spread to many countries around the world and become a pandemic. On 11 February the World Health Organization announced that the official name would be covid-19, a shortened version of

¹ Rakesh PS, Indian Journal of Medical Ethics, COMMENTS The Epidemic Diseases Act of 1897: public health relevance in the current scenario, Vol I No 3, July-September 2016,

² Managing epidemics Key facts about major deadly diseases, World Health Organisation ISBN 978-92-4-156553-0

Coronavirus disease 2019. The WHO refers to the specific virus that causes this disease as the covid-19 virus. This is not the formal name for the virus – the International Committee on Taxonomy of Viruses calls it the “severe acute respiratory syndrome Coronavirus 2”, or SARS-CoV-2, because it is related to the virus that caused the SARS outbreak in 2003. The differences in the severity of the disease could be linked to a protein called ACE2, which the virus uses to enter cells and is carried on the surface of some cells in the nose, lungs, and gut.

People with diabetes, hypertension or cardiovascular disease often take ACE inhibitor drugs, which work by targeting the ACE enzyme – a different protein that works with ACE2 to regulate blood pressure. No clinical studies have shown that ACE inhibitors raise the risk of contracting covid-19. What we do know is that people with certain conditions are at higher risk of death from covid-19, and these people are likely to have higher ACE2 levels and also be taking ACE inhibitors. Early in the outbreak, the virus was called 2019-nCoV by the WHO. The virus is also often referred to as the novel Coronavirus, 2019 Coronavirus or just the coronavirus.³

CONTAINMENT OF EPIDEMIC (BIOLOGICAL AND NON BIOLOGICAL ACTIONS)

It was about 196 years ago (1824) that the U.S. Supreme Court, in an *en banc* sitting led by Chief Justice John Marshall, affirmed the powers of the state to enact quarantine laws and impose health regulations. The world has since faced many health emergencies caused by dangerous diseases. This virus crisis is also not new.

Quarantine is considered the oldest mechanism to reduce the rapid spread of bacterial infections and viral onslaughts. It has been legally approved by all jurisdictions in the world for the maintenance of public health and to control the transmission of diseases. Since ancient times, societies have implemented isolation, and imposed a ban on travel or transport and resorted to maritime quarantine of persons. These measures were often forcibly enforced to prevent or reduce the spread of disease and to safeguard the health of citizens not yet exposed to such diseases. In the list of diseases that may require quarantine, issued by the Centers for Disease Control and Prevention, the Severe Acute Respiratory Syndrome that can go on to become pandemic has been recently added to the existing ones — cholera, diphtheria, infectious tuberculosis, plague, smallpox, yellow fever and viral hemorrhagic fever. It shows that quarantine is a medically accepted mode to reduce community transmission. However, a constructive alternative method of treating patients exposed to infectious diseases is the imperative need in the arena of public health.

‘Trentino’ to quarantine

The first law on medical isolation was passed by the Great Council in 1377, when the plague was rapidly ruining European countries.

³ <https://www.newscientist.com/term/covid-19/> (last visited on 14 april,2020)

Detention for medical reasons was justified and disobedience made a punishable offence. The law prescribed isolation for 30 days, called a ‘*trentino*’. Subsequently, many countries adopted similar laws to protect the people. When the duration of isolation was enhanced to 40 days, the name also changed to ‘quarantine’ by adopting the Latin *quadraginta*, which referred to a 40-day detention placed on ships. In common parlance, ‘quarantine’ and ‘isolation’ are used interchangeably, but they convey two different meanings and are two different mechanisms in public health practice. Quarantine is imposed to separate and restrict the movement of persons, who may have been exposed to infectious disease, but not yet known to be ill. But, isolation is a complete separation from others of a person known or reasonably believed to be infected with communicable diseases. In matters involving a threat to the health of the community, individual rights have to be balanced with public interest. In fact, individual liberty and public health are not opposed to each other but are well in accord. The reason assigned by the High Court to uphold the quarantine was that even if there was a conflict between the right of an individual and public interest, the former must yield to the latter.⁴

The International Health Regulations (IHR 2005) came into force in June 2007. They placed a number of obligations on the signatory Member States as well as the World Health Organization (WHO). For this purpose, IHR aims to develop agreed mechanism by (Member States) to rapidly share information on occurrences of public health emergency of international concern.

The IHR require Member States to:

Article 5: detect and notify WHO about a range of disease-related events occurring within their territory that may constitute a public health emergency of international concern.

Article 6: inform the WHO of public health concerns outside their territory, which WHO in turn will verify through surveillance activities with the respective national IHR focal points.

Article 7: ensure that national health surveillance and response capacities meet certain functional criteria, within a certain time frame, especially at points of entry such as airports, sea-ports and ground crossings.

Building on the unique experience of WHO in global disease surveillance, alert and response, IHR define the rights and obligations of Member States to report public health events and establish a number of procedures that WHO must follow in its work to uphold global public health security. India is one of 194 countries bound by IHR, which aims to help the international community prevent and respond to public health risks that have the potential to cross borders and are of international public health importance. IHR require the Member States to contribute significantly to national and international health security.

This study was taken up for a regional workshop on public health legislations for International Health Regulations held in Yangon, Myanmar, 8–10 April 2013 to outline Indian legislation that may be involved for implementing IHR provisions. These aspects have been examined for the following points of entry into the jurisdiction of India, namely

⁴ Opeds and editorials, “Quarantine and the law”, *The Hindu*, April 3, 2020

- (i) entry by air through airports;
- (ii) entry by sea through sea ports; and
- (iii) ground crossings.

The study also involved examining the laws that would apply regardless of the point of entry – for identification/verification/mitigation/containment of hazards under the additional heading

“(iv) applicable to all”⁵

Because these diseases are rare and outbreaks are generally contained quickly, these epidemics have not been a priority among the research community or manufacturers in the development of medical countermeasures. Nevertheless, more research is needed to identify precisely the modes of transmission and medical countermeasures.

Today’s harsh reality is that there is as yet no vaccine or treatment for most emerging diseases. This is not as hopeless as it might seem at first. WHO has developed a Research & Development (R&D) Blueprint for action to prevent epidemics: it is a global strategy and preparedness plan that allows the rapid activation of R&D activities during epidemics. Its aim is to fast-track the availability of effective tests, vaccines and medicines that can be used to save lives and avert large scale crisis. However, public health interventions have to rely primarily on social-distancing measures to reduce human transmission, and on controlling the source of infection (for instance by culling of infected animals/elimination of the reservoir).

Thus, to prevent the spread of emerging diseases, it is vitally important to ensure early detection of a new pathogen and the start of human-to-human transmission.⁶

Public health interventions can be broadly divided into four categories: Biological, behavioral, political, and structural. The biological interventions are most commonly used for containing communicable diseases. They are the ones based on classical biomedical model of health. Behavioral interventions rely upon bringing upon a change in the behavior of an individual or the community which is based upon social determinants model of health promotion. Political interventions are in the form of prescribing policies related to health. The last category of public health interventions is structural which is the end result of political process, that is, passage of laws and regulations.⁷ Two pronged strategy is employed by Government of India to control infectious diseases. First, we have selective vertical diseases control program which focuses on one disease at a time. This approach is suitable for endemic diseases. Cost and non integration with general health services of this approach makes it nonreplicable and inefficient in the containment of infectious diseases. The second approach is based on investigation and control of outbreaks and epidemics. This approach is suitable for short-term containment of epidemics, but inappropriate for endemic diseases. Both approaches operate within a legal and administrative framework and require

⁵ International public health hazards: Indian legislative provisions, World Health Organization 2015

⁶ Supra note 2

⁷ Nutbeam D, Wise M., Structures and strategies for public Health intervention. In: Detels R, McEwen J, Beaglehole R, Tanaka H, editors. Oxford Textbook of Public Health. 4th ed. London: Oxford University Press; 2002

community participation to be effective. Regulatory options available in India are namely Epidemic Act 1897 and Internal Health Regulations. International Health Regulations is an instrument designed and implemented by World Health Organization for diseases of national, regional, and global health security.

Epidemic Act 1897 is the only act which provides legal interventions in case of a subnational epidemic. Section 188 of Indian Penal Code In 1955 and again in 1987 the central government developed a Model Public Health Act, but could not advocate states to adopt them. The latest revision done by NICD in 2003 is still pending for approval by central authorities. The National Health Bill 2009 seeks to ensure broad legal framework for providing essential public health services and functions and powers to respond to public health emergencies through effective collaboration between center and the states.

Some states like Gujarat and Karnataka have gone a long way in drafting the Public Health Bill.⁸

Vaccination is the primary intervention to prevent infection and severe outcomes caused by influenza virus. However, at the beginning of a pandemic, Pandemic influenza vaccines, matching the new virus, will most likely not be available.

- In addition to antiviral drugs administration (which might also be short in supply), **NON-PHARMACEUTICAL INTERVENTIONS (NPI)** should be put in place, at the early stage of a pandemic, to slow transmission and reduce its impact. NPI include (but are not limited to):

- Social distancing: staying at home when sick;
- Hygiene such as cough etiquette (covering coughs and sneezes with a tissue), hand washing and cleaning of touched surfaces and objects;
- During severe pandemics, more extreme measures can be implemented: using facemasks when sick, schools closures, decreasing the amount of contacts among people.

- NPI will help to reduce the number of people who are exposed and then infected.

The Pandemic influenza Preparedness Framework or “PIP Framework” is an innovative public health instrument that seeks to better prepare the world to respond to Pandemic influenza.

- It brings together Member States, industry, other stakeholders and WHO to implement a global approach to Pandemic influenza preparedness and response.
- The PIP Framework has two objectives which are to be pursued on equal footing:
 - To improve the sharing of influenza viruses with the potential to cause a human pandemic;
 - To establish more predictable, efficient, and equitable access to the benefits that result from the sharing of such viruses, notably vaccines and antiviral medicines.
- The Framework, developed by Member States, came into effect on 24 May 2011, unanimously adopted by the World Health Assembly.

⁸ Patro BK, Tripathy JP, Kashyap R. Epidemic diseases act 1897, India: Whether sufficient to address the current challenges?. J Mahatma Gandhi Inst Med Sci 2013;18:109-11 Vol 18| Issue 2 available at at: <https://www.researchgate.net/publication/270017332>.)

DISEASE MANAGEMENT FRAMEWORK IN EYES OF LAW (INDIA AND INTERNATIONAL)

The current COVID-19 crisis, with its closure of shops, academic institutions and postponement of public examinations, has put the people in a *de facto* quarantine. Nonetheless, the question whether a public authority or state can promulgate an order for quarantine is a legal issue. Constitution entered into force and in 1951, WHO Member States adopted the International Sanitary Regulations, which were replaced by and renamed the International Health Regulations in 1969. The 1969 Regulations were subject to minor modifications in 1973 and 1981. The World Health Assembly adopted the IHR (2005) on 23 May 2005 and they entered into force on 15 June 2007. The International Health Regulations (2005) represent a binding international legal agreement involving 196 countries across the globe. They aim to prevent, protect against, control and respond to the international spread of disease while avoiding unnecessary interference with international traffic and trade.

WHO management of events under the Emergency Response Framework (ERF)

The ERF is an internal WHO tool that outlines a set of procedures to better respond to emergencies. The ERF provides WHO staff with essential guidance on how the Organization manages the assessment, grading and response to public health events and emergencies with health consequences, in support of Member States and affected communities.⁹

A number of laws “other legislation” were also identified, that would be significant in the containment and mitigation of the hazard after its manifestation in India. In order to effectively implement the IHR 2005, it is imperative that each Member State co-ordinates its various core capacities including surveillance, response systems, preparedness to contain and mitigate the risk, systems for risk communications, mobilization of human resources and laboratory network.

Implementation of IHR 2005 in India

Many of the laws that may be invoked for implementation of IHR 2005 in India have been in existence for over 100 years. In order to implement IHR 2005, India has taken multi-level steps i.e. at the national, state and district levels and has furthermore examined activities related to airport, sea ports and ground crossings.

Major changes between IHR (1969) and IHR (2005)?

- The scope of the IHR (2005) is purposely broader and more inclusive in respect of the public health event to which they have application in order to maximize the probability that all such events that could have serious international consequences are identified early and promptly reported by States Parties to WHO for assessment.
- The IHR (2005) explicitly allow WHO to take into account information from sources other than

⁹ Supra note 2

official notifications and consultations, and, after assessment, to seek verification of specific events from the concerned States Parties.

General obligations of States under the IHR 2005?

Under the IHR (2005), States parties are required to:

- Designate a National IHR Focal Point (it may be a team). Focal points are required to be available on a 24-hour basis, 7 days a week.
- Assess events occurring in their territory and to notify WHO of all events that may constitute a public health emergency of international concern using the decision instrument.
- Respond to requests for verification of information regarding events that may constitute a public health emergency of international concern, to respond to public health risks which may spread internationally.
- Develop, strengthen and maintain the capacity to detect report and respond to public health events; to provide routine facilities, services, inspections and control activities at designated international airports, ports and ground crossings to prevent the international spread of disease.
- Report to WHO evidence of a public health risk identified outside their territory which may cause international disease spread, manifested by exported/imported human cases, vectors carrying infection or contamination, contaminated goods.
- Respond appropriately to WHO recommended measures.
- Collaborate with other States Parties and with WHO on IHR (2005) implementation

What States Parties should do if they identify a public health risk outside their territory?

States Parties must inform WHO through the National IHR Focal Point within 24 hours of receipt of evidence of a public health risk identified outside their territory that may cause international disease spread, as manifested by imported or exported human cases, vectors which carry infection or contamination, or by contaminated goods.

NCDC as focal point in India for IHR

The activities at the national level include the designation of the National IHR Focal Point, initially assigned to the National Institute of Communicable Diseases (NICD) under the Ministry of Health and Family Welfare. In 2009, NICD transformed into the National Centre for Disease Control (NCDC), with a larger mandate for controlling emerging and re emerging diseases. NCDC, headed by a Director, has the following departments:

- (a) Centre for AIDS and related diseases
- (b) Integrated Disease Surveillance Project
- (c) Division of Epidemiology
- (d) Division of Biochemistry and Biotechnology
- (e) Centre for Medical Entomology and Vector Management
- (f) Division of Zoonosis
- (g) Division of Microbiology
- (h) Division of Malaria and Coordination
- (i) Division of Parasitic Diseases
- (j) Division of Planning, Budget and Administration

Apart from conducting training and research using a multidisciplinary integrated approach, NCDC is also expected to provide expertise to the states and UT on rapid health assessment and laboratory-based diagnostic services, surveillance of communicable diseases and outbreak investigation. The mandate of NCDC is also to notify public health emergencies of international concern (PHEIC) to WHO, to respond to requests for verification of information of such events, support field investigations for early diagnosis and technical guidance to the States for the timely and effective response to PHEIC.

The notification of an outbreak to WHO is based on the identification of any two of the four point criteria of determination of PHEIC:

1. unusual or unexpected event
2. an event that seriously impacts public health
3. event with a significant risk of international spread and
4. event with a significant risk of international spread requiring travel and trade restrictions.

NCDC has the responsibility of identifying nodal officers at designated hospitals, laboratories, state health directorates, district health authorities, local municipalities, Cantonment Board, as well as at the ministries of civil aviation, shipping, surface transport, agriculture (veterinary department) home affairs, tourism and railways. Nodal officers are also to be identified in the customs, immigration and Airport Authority of India, Association of Shipping Agents and the Central Industrial Security Force. NCDC also has the responsibility to develop guidelines for establishing and training rapid response teams (RRT), which will be deployed in all states at the district level.

The Ministry of Health and Family Welfare (MoH&FW) presented a draft law called the **National Health Bill 2009**, presently pending in Parliament. The mandate is to “provide for protection and fulfillment of rights in relation to health and wellbeing, health equity and justice, including those related to all the underlying determinants of health as well as health care; and for achieving the goal of health for all; and for matters connected therewith or incidental thereto”.

Once a “disaster” is declared by the Government, the provisions of the **Disaster Management Act (DM Act) 2005** apply. “Disaster” is defined as “a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area;” Given the various parameters and the complex collection of legislations, the more probable way of setting up a comprehensive and effective SOP would be by adopting a problem-solution approach for every given circumstance and weaving the SOP into a vast resource-mobilizing machinery that would be equally effective in handling anything, from a regional outbreak to a national emergency.¹⁰

¹⁰ Supra note 5

In India, the Epidemic Diseases Act, 1897, a law of colonial vintage, empowers the state to take special measures, including inspection of passengers, segregation of people and other special steps for the better prevention of the spread of dangerous diseases. It was amended in 1956 to confer powers upon the Central government to prescribe regulations or impose restrictions in the whole or any parts of India to control and prevent the outbreak of hazardous

Quarantine is not an alien concept or strange action and it has been invoked several times during the bizarre situations caused by the cholera, smallpox, plague and other diseases in India.¹¹

Disease surveillance and coercive notification

In India, the Epidemic Diseases Act, 1897, requires medical practitioners to notify the public health authority about anybody with a communicable disease and disclose the identity of the person. Notification is essential for good surveillance and to get an idea about the burden of disease in the community, as this helps in planning, implementing and evaluating programmes for the control of the disease. Since the implementation of the Integrated Disease Surveillance Units (IDSP), each district has a surveillance unit and a rapid response team (RRT) to quickly manage the outbreak of a disease in any part of the country. To augment surveillance activities and response mechanisms, a wide network of epidemiologists, microbiologists and entomologists has been made available in all district and state headquarters under the IDSP. Information technology connectivity has been established with all states, districts and medical colleges for the rapid transfer of data. The IDSP has been trying to involve the private sector in the disease surveillance process, but with limited success.¹² The barriers to getting notifications include: the absence of a felt need in the public sector to involve the private sector; the inability of public sector staff to deal with the private sector; and a lack of mutual respect for each other in both sectors. On the other hand, the private sector seems to have fears regarding confidentiality, the complexity of the reporting procedures, apprehensions about losing patients, a lack of recognition from Government and ignorance about why and whom to notify.¹³ Legal provisions should not be used as shortcuts to get the private sector to notify cases; instead, the real issues should be addressed. There are good examples of surveillance systems getting notifications from the private sector without the use of coercion. Polio surveillance is a good example of private sector participation in disease surveillance.

The country has many legal provisions which can be used to take public health measures to prevent and control an epidemic, including provisions of the **Indian Penal Code**, the **Livestock Importation Act, 1898**, **Indian Ports Act of 1908**, **Drugs and Cosmetics Act of**

¹¹ Supra note 1

¹² Integrated disease surveillance project. New Delhi: ministry of health and family welfare, government of india. available from :<http://idsp.nic.in/>

¹³ Rakesh PS. Public private partnership for communicable disease surveillance and control. paper presented at AKGC 2015.Proceedings of the Fourth International Congress on Kerala studies

1940, and Aircraft Rules of 1954. Bringing all the legal provisions for preventing outbreaks under a single legislation would be challenging, though it would be beneficial for effective implementation and monitoring.

State initiatives for public health legislations

Many states formulated their own public health laws and many amended the provisions of their epidemic disease Acts. The Madras Public Health Act was passed in 1939. This was the first of its kind in the country. The government of Himachal Pradesh included provisions for compulsory vaccinations in its Epidemic Diseases Act, while Madhya Pradesh, Punjab, Haryana and Chandigarh conferred powers on specific officials to execute various provisions of the Act. Bihar gave the state government the power to make requests for vehicles during epidemics. While it is true that the priorities of the states are different, the platform of a common law for combating infectious disease that the states should work on should be the same. There are instances in which different parts of a state are following two different public health acts. For example, the southern districts of Kerala follow the Travancore- Cochin Public Health Act, 1955, while the northern districts follow the Malabar Public Health Act, 1939. Municipal Acts in different states vary in quality and content, and many are vague about the measures to be taken during the outbreak of a disease. Most of the public health Acts in the states are “policing” Acts, intended to control epidemics, and do not deal with coordinated and scientific responses to prevent and tackle outbreaks.¹⁴ Recently, many states, such as Gujarat and Karnataka have drafted public health bills which seem promising, as they have put in place a structure for better surveillance while ensuring that citizens are not denied their health rights.

The Director of World Health Organization (WHO) on March 30 determined that the outbreak of COVID-19 constitutes a public health emergency of international concern and issued interim guidance for quarantines of individuals.

The guidance permitted the restriction of activities by separation of persons who are not ill, but who may have been exposed to an infectious disease within the legal framework of the International Health Regulations (2005). It also distinguished quarantine from isolation, which is the separation of ill or infected persons from others, so as to prevent this spread of infection or contamination. As per the WHO guidelines, possible quarantine settings are: hotels or dormitories and well-ventilated single rooms or homes, where a distance of at least one meter can be maintained from other members.¹⁵

The Centers for Disease Control and Prevention, U.S., in its order on quarantine, expressly made it clear (Rule 9) that the people whose right is affected by an order of quarantine by a public health authority have the right to seek judicial review including the right to habeas corpus. Therefore, courts have exercised their jurisdiction and powers to

¹⁴ Kakkar M, Hazarika S, Zodpey S, Reddy KS. Influenza pandemic preparedness and response: a review of legal framework in India. Indian J public health. 2010;54(1):

¹⁵ Supra note 4

review and reverse quarantine orders. The Supreme Court suo moto took cognizance of fears over the COVID-19 pandemic affecting overcrowded prisons in India, on March 16. The difficulties in observing social distancing among prison inmates, where the occupancy rate is at 117.6%, were highlighted and directions issued to prevent the spread of COVID-19 in prisons in India. The setting up of isolation cells within prisons across Kerala, and the decision of the Tihar Jail authorities to screen new inmates and put them in different wards for three days are appreciated as reasonable preventive measures. Quarantine rooms may have strong closed doors or may be water and air tight compartments, but the rays of justice from the courtrooms have the powers to intrude in them. Of course, under the sun every object is subject to judicial review and quarantine orders are not exempted from it.

DRAWBACKS OR SHORTCOMINGS IN CURRENT LEGAL PROVISIONS

Epidemic Diseases Act was formulated about 118 years ago and thus has major limitations in this era of changing priorities in public health emergency management. Some of the factors that need to be addressed now are the increasing rates of international travel, more extensive use of air travel compared to sea travel, greater migration within states for the sake of earning a livelihood, the transition from agrarian to industrial societies, increased urbanisation, grossly increased density of populations in certain areas, increasing intensity of contact with animals and birds, man-made ecological changes, changing climatic conditions, technologies of mass food production, breakdown of public health measures and biosafety lapses. The Epidemic Diseases Act needs modifications in the changing scenario. For example, it is too oriented towards travel by ship and silent on “air travel”, which was uncommon at that time. The epidemiological concepts used in relation to the prevention and control of epidemic diseases have also changed over time. The Epidemic Diseases Act is not in line with the contemporary scientific understanding of outbreak prevention and response, but only reflects the scientific and legal standards that prevailed at the time when it was framed. To cite an example, the Act places too much emphasis on isolation or quarantine measures, but is silent on the other scientific methods of outbreak prevention and control, such as vaccination, surveillance and organised public health response.

Future directions and recommendations for improvement of legislations

What we require is a legal framework relevant to the current context. A good public health law infrastructure establishes not only the powers of the government, but also shapes the government’s role in preventing and controlling diseases. The Epidemic Diseases Act, 1897, is outdated and not relevant, as discussed above. Many others who have reviewed the Act are of the same opinion.¹⁶ The lack of uniformity between the various acts followed in different states has also been highlighted above. There is a need for an integrated, comprehensive, actionable and relevant legal provision for the control of disease outbreaks in India. This should be articulated in a rights-based, people-focused and public health-oriented manner.

¹⁶ Patro BK, Tripathy JP, Kashyap R. Epidemic diseases act 1897, India: whether sufficient to address the current challenges? *J Mahatma Gandhi Inst Med Sci*. 2013;18:109–11.

The National Health Bill is one such proposed legislation.¹⁷ The draft National Health Bill 2009 attempts to ensure a legal framework for providing essential public health services and powers for an adequate response to public health emergencies through effective collaboration between the Centre and the states.

It also mentions the formation of public health boards at the national and state levels for smooth implementation and effective coordination. There are provisions for community-based monitoring and mention of grievance redressal mechanisms which would ensure transparency.

For better accountability, it would have been good if the Bill had clearly mentioned the roles and responsibilities of each department and the nodal agencies for preventing and controlling epidemics. To cite an example, the Disaster Management Act, 2005, describes in detail when to act, who is to act, what measures are to be taken at different levels, how to implement, how to coordinate, and what the roles and responsibilities of each department and the authorities are during emergencies.¹⁸

Given that the private sector accounts for nearly 70% of India's healthcare, this sector has a critical role to play in supporting the traditional public sector-led response to the prevention and tackling of outbreaks. There are many successful **public– private partnership (PPP)** models in healthcare and the lessons learnt from these need to be incorporated for better private sector participation in communicable disease control. Investing in mechanisms to bring private-sector players together is likely to contribute to better coordination, greater resources, more time and expertise during an emergency. During epidemics, there should be provisions in the Act, to maintain standards in quality of care, rationality of treatment, cost of care, treatment protocol and ethical behaviour applicable to both public and private sectors and these need to be regulated through bodies with the involvement of people from both sectors and mutually agreeable professional organisations. The draft National Health Bill has limited reference to ethical frameworks or the protection of human rights during the response to epidemics. The Public Health Emergency Response Act in Mexico is an example in which a clear description of the individual civil rights of persons quarantined or isolated is provided.¹⁹

A public health regulatory authority can propose, review and revise public health legislations on a periodic basis, recommend and lay down public health priorities, collaborate with health systems for strategic planning, provide scientific advice and technical support for the framing of state rules, help to streamline the procedures, see to the uniform implementation of laws,

¹⁷ National Health Bill. Working draft. Version Jan 2009. Available from: http://www.prsindia.org/uploads/media/Draft_National_Bill.pdf

¹⁸ National Disaster Management Act 2005 Available from: <http://www.ndmindia.nic.in/acts-rules/DisasterManagementAct2005.pdf>

¹⁹ New Mexico public health law handbook. Civil Proceedings Involving State Public Health Powers. Protections for a Person Isolated or Quarantined (Section 12-10A.-8.B., NMSA 1978) Available from: [http://jec.unm.edu/manuals-resources/manuals/New Mexico Public Health Law Handbook.pdf](http://jec.unm.edu/manuals-resources/manuals/New%20Mexico%20Public%20Health%20Law%20Handbook.pdf)

and act as a coordinating body which bears the overall responsibility for the effective working of the regulatory system.

An agency that defines standards could ensure uniformity in the measures to be taken for the control of an outbreak and disease surveillance, including legal actions. Provisions for engaging and strengthening the civil society and measures for promoting inter-state communications for the control of infectious diseases should be considered in the legal frameworks.²⁰

CONCLUSION

Implication of not following a national lockdown could be:

- Invocation of powers under section 188 of CrPC whereby disobedience to the direction of a public servant is punishable with both imprisonment and fine.
- Section 269 of IPC can be invoked to ensure that nobody spreads infection of a dangerous disease.
- Section 270 of IPC can be invoked if people malignantly fail to act during an epidemic.
- Once these provisions are invoked, the enforcement authorities may arrest the person involved.
- If someone escapes ‘quarantine’, the authorities may invoke provisions of section 271 IPC

On March 14, 2020 home ministry declared the coronavirus outbreak as a “notified disaster”, thus bringing into play the provisions of the Disaster Management Act. This has allowed the National Executive Committee to give directions to the governments to take certain measures and has delegated powers to act under the act to the union health secretary. It further allows usage of disaster fund created for this purpose.

The act also has the means to control; social media. The act has been in tandem with ED act, which provide the basis for containment measures such as restriction on flights landing in India, prohibiting gathering beyond a certain number of people etc.²¹

The ministry of home affairs said that the costs towards quarantine should not exceed 25% of the state disaster relief funds allocation for the year and expenditure on equipment should not exceed 10% of total allocation. FIRs been registered under section 269 of IPC against people who escape quarantine in hospitals.

Section 269 of IPC punishes any person who unlawfully or negligently commits any act that is likely to spread the infection of any disease dangerous to life with imprisonment up to six months an or fine

²⁰ RAKESH PS

²¹ Kunal Tandon, Columns, Coronavirus: the legal framework behind lockdown, curfew, and quarantine Bar And Bench, visited on 29 march 2020 at 23:17

The Cholera epidemics that overran Europe between 1830 and 1847 were catalysts for intensive infectious disease diplomacy and multilateral cooperation in public health. They showed that collaboration between countries was needed to control the spread of dangerous diseases across the world. This led to the first International Sanitary Conference in Paris in 1851. In 1948, the WHO added a new word in public health vocabulary: “**infodemics**”. These can be defined as the rapid spread of information of all kinds, including rumours, gossip and unreliable information. They are spread instantly and internationally through the growing popular use of mobile phones, social media, the internet and other communication technologies.²²

The Central government has promulgated an Ordinance to amend the *Epidemic Diseases Act, 1897* to make attacks on doctors and healthcare workers a cognizable and non-bailable offence. The Ordinance is called '*The Epidemic Diseases (Amendment) Ordinance, 2020*' Whoever commits or abets the commitment of violence against health care worker, shall be punished with imprisonment ranging from 3 months to 5 years, and penalty ranging from Rs 50,000 to 2 lakh. In case of a very serious attack, the imprisonment may be for a minimum period of 6 months and maximum of 7 years, with penalty ranging from Rs 1 lakh to 5 lakh. As per the Ordinance, investigation into the incidents of attacks on doctors and healthcare workers has to be conducted by a senior inspector and be completed within 30 days.

Court proceedings related to these cases shall also be conducted in a time-bound manner, and have to be decided within a year. The Ordinance also provides that the court shall presume that such person has committed such offence, unless the contrary is proved.

The Ordinance states that in case of damage to vehicles or clinics of doctors or healthcare workers, the perpetrators would have to pay double the market cost of the damaged asset as compensation. Upon failure to pay the compensation awarded, such amount shall be recovered as an arrear of land revenue under the Revenue Recovery Act, 1890.²³

²² Managing epidemics, Key facts about major deadly diseases, ISBN 978-92-4-156553-0

²³ News, Read The Epidemic Diseases (Amendment) Ordinance, 2020 promulgated to punish those attacking healthcare workers, **Bar & Bench**, Apr 23, 2020, 2:56