

## Emergency Medicine

## KEYWORDS:

Pandemic, Epidemic Disease Act,  
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## COVID-19: THE EYE OPENER FOR A NEW ACT TO COMBAT AND CONTROL NEW HEALTH EMERGENCIES WITH PANDEMIC POTENTIAL IN INDIA



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## ABSTRACT

Despite comparative decline in communicable diseases, India still witnesses hundreds of outbreaks every year. Including the current COVID-19 pandemic India also has suffered from several major pandemic/large scale epidemics over the couple of centuries. However, the response to majority of the epidemics has been inadequate and often failed one. The EDA 1897 has been in action and is based on the contemporary science and socio-political environment. India has several legal mechanisms to help contain and control spread of epidemic but in different platforms. There has been a paradigm shift in socio-political milieu and advancement in scientific approach. The century old EDA 1897 with limited scope has not been optimally effective in containing and controlling the epidemics/pandemics as has been witnessed during the current COVID-19 pandemic. Hence, the existing EDA 1897 needs a revisit, and should include appropriate structural scalar chain, clear cut and un-ambiguous terms/definitions and guidelines, ethics and human rights, duties and responsibilities of the affected population/community, involvement of private health sectors and appropriate punitive measures to deter repeated violations of promulgated orders.

## INTRODUCTION

The edge that we stand at today speaks to a well-discussed and a self-evident question, which is, how we had dealt with the COVID-19 spread? India has undergone epidemiological transition in the last couple of decades. Despite the change in dynamics of diseases due to changing lifestyles, socio-economic growth and industrialization, communicable diseases still remain a major and significant threat to health, development and economy of developing countries like India (1, 2). Communicable diseases account for nearly 28% of all deaths in India (3). The communicable diseases occur in two forms; 1) endemic form and 2) the outbreak/epidemic form which may have pandemic potential. The control of diseases including communicable disease can be done with a mix of public health interventions which includes biological, behavioral, political and structural measures (4). The basic principles with the combined administrative approach deals with the laws and Acts as instituted by the concerned states (5-7).

Nearly 50 outbreaks are reported every week by Central Surveillance Unit (CSU), India (8). Few of them have potential to affect a large geographical area and tendency for international spread. In view of the globalization, increased international travel, threat of bioterrorism, emergence and re-emergence of infections of global concern, India is also at risk of suffering from Pandemics (9-11).

Pandemics are epidemics of large scale which generally affect a wide geographical region or worldwide in distribution.

## History Of Major Outbreaks/Epidemics In India

Few devastating epidemics and pandemics have occurred in India creating havoc and panic in the sub-continent. A list of major epidemics which have occurred in the last couple of centuries is given in the Table 1.

**Table 1: List Of Epidemics/pandemics In India In The Past Couple Of Centuries**

Year	Epidemic
1910-1911	Cholera
1918-1920	Spanish Flu (Pandemic)
1974	Small Pox
1994	Plague
2002-2004	Severe Acute Respiratory Syndrome (SARS) (Pandemic)
2006	Chikungunya
2009	Swine Flu (Pandemic)
2018	Nipah virus outbreak
2020	COVID-19

## Genesis Of Epidemic Disease Act 1897

India was colonial habitat for epidemics of plague, cholera, leprosy, malaria etc in the pre-British era. During 18<sup>th</sup> and Mid-19<sup>th</sup> centuries cholera caused widespread devastating loss of life and the colonial powers of Europe blamed the British India for the import of cholera to Europe. The Indians were despised as untidy and contagion for many communicable diseases like typhoid fever, cholera, malaria etc. It was reported that the death was more common among the young European who came as soldiers, sailors, and made contact with local population in colonial states either through roaming outside their enclaves or making sexual contacts with local women. This led the East India Company to pass the Contagious Disease Act in 1868. The Act, though confined only to enclaves, enforced monitoring and confinement of the sex workers, and sanitary measures around the enclaves.

The focus shifted out of cholera when outbreaks of plague were reported in different parts of India like Kutchh of Gujarat, Hisar of Punjab, Marwar region of Rajasthan during 19<sup>th</sup> century. However, the documented evidence on the plague outbreaks dated back to 1896 in Bombay. The plague directly impacted the trade and the colonial intentions. Being in the international trade route, which has been threatened by the plague epidemic, the British imperial government of India was forced to adopt health interventions to prevent and control the spread of the plague epidemic. Based on the observation and need to prevent the spread of the plague, the Epidemic Disease Act (EDA) was enacted in 1897 (12-14). The EDA

enabled the Governor General of India to empower the local authorities to use necessary steps to control the spread of epidemics like coercible inspection, segregation and isolation of suspected persons (15).

Subsequently, the century old EDA 1897 has been historically invoked to contain the spread of various diseases like swine flu, cholera, malaria and dengue. According to reports, in 2018 the Act was invoked as cholera began to spread in a village in Gujarat. In 2015, the Act was brought into force to deal with dengue and malaria in Chandigarh; and in 2009, it was enforced in Pune to combat the outbreak of swine flu.

**Other Structural Measures In India To Control Epidemic Diseases**

Apart from EDA and Disaster Management Act (DMA), over the years many public health legislations have been instituted or suggested for effective management of epidemics. (Table 2)

**Table 2: List Of Regulatory Mechanism (Act/Ordinance /Rule/Bill) For Control Of Epidemics In India.**

Year	Regulatory Mechanism
1898	Livestock Importation Act
1908	Indian Ports Act
1940	Drugs and cosmetic Act
1954	Aircraft Rules
1939	Madras Public health Act
1939	Malabar Public Health Act
1955	Travancore-Cochin Public Health Act
1955 & 1987	Model Public Health Act (Proposed but Rejected)
2009	National Health Bill (Proposed and after initial ignorance, on table since 2017)
2017	The Public Health (Prevention, Control And Management Of Epidemics, Bio-Terrorism And Disasters) Bill, 2017 (Proposed, still tabled on parliament)
2020	Epidemic Disease (Amendment) Ordinance

NB: Himachal Pradesh has made amendment in the EDA for compulsory vaccinations. Similarly, the states of Madhya Pradesh, Punjab and Haryana have made amendment in the EDA to empower designated officials to execute provisions under the Act.

However, all the Acts are executed in different platforms. There is no single platform or framework to bring all the public health legislations together. This prevents development of a comprehensive public health response plan for containment and control of epidemic situation in the context of changing socio-political and health priorities. The National Health Bill 2009 (16) was additionally focused on giving legal framework for the arrangement of essential public health services by recognizing health as a crucial right of the individual. It is too given for a response mechanism for public health crises by laying out a collaborative government framework. Be that as it may, none of these activities ever fructified as states considered it as an infringement on their spaces.

The latest of the regulatory mechanism is the Epidemic Disease (Amendment) Ordinance, 2020 (17). It amended the Act to include protection of health workers against the act of violence and expands the power of central government to prevent spread of such diseases. The ordinance has defined the 'act of violence' and specified the amount of penalty for such act, which can be imprisonment of three months to seven years and fined between rupees fifty thousand to five lakhs depending upon the severity of offences. The offences are cognizable and non-bailable. The ordinance also expanded the power of government to regulate surface and air transport services including inspection of people intending to travel by such means.

Keeping in view the expansive nature of the COVID-19 pandemic, various regulatory measures have been issued by the Government

of India (Gol).

1) Travel restrictions

The travel advisories issued by Ministry of Health and Family Welfare GOI, give an extend of travel limitations, some of which are set out below:

With effect from 13 March 2020, all existing visas (other than those issued in respect of diplomats, officials, United Nations, international organizations, employment and projects) issued to nationals of any country had been stand suspended. In the event that any foreign national intends to travel to India for compelling reasons, he / she may contact the nearest Indian Mission for issue of visa. The visas issued to foreign nationals presently in India are, however, remained valid. The international travel (to and from India) is still restricted amidst the possibility of second wave of COVID-19 looming around. The greater relaxation in the domestic transport and travel has been issued with strict personal protective measures, social distancing and prevention of public gatherings.

2) Nationwide Lockdown

As discussed above, the central government invoked the DMA, 2005, to order a lockdown of the country. Similarly, state governments invoked other Acts to address concerns pertaining to the spread of COVID-19. The Epidemic Diseases Act, 1897, empowers a state government to prescribe temporary regulations to be observed by the public or any person to prevent the outbreak and spread of a disease. The lockdown (8<sup>th</sup> month into effect) is mainly restricted to public gatherings.

**The scope of EDA act 1897**

The Government of India has conjured a 123-year-old Act within the wake of COVID-19 spread, which has been verifiably utilized to contain the spread of different illnesses like plague. The EDA comprises of four sections (18). (Box1)

<p><b>Box 1: Various sections of EDA 1897</b></p> <p><b>Section 1</b> Signifies the title and scope of the Act.</p> <p><b>Section 2</b> Enables the State and Central Government to take preventive steps and uphold laws that are to be taken after by the civilian in order to prevent disease transmission. These measures involve the screening of travelers commuting by rail or any means of transport and the isolation or segregation in hospitals, transitory convenience of people denounced of being contaminated with any such disease.</p> <p><b>Section 3</b> Endorses punishment for resisting and disobeying any law or order issued under the Act, in accordance to section 188 of the Indian Penal Code.</p> <p><b>Section 4</b> States that no complaint or other lawful activity might be taken against any individual for anything done or assumed to be embraced in great confidence beneath this Act</p>
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The Section 2, which enables the central and state government to require and execute fundamental measures considered fit for the control of this pandemic, needs a special mention (18). It gives the power to take uncommon measures and endorse controls as to this very unsafe pandemic. Under this section, brief provisions or regulations can be made to be watched by the public to handle or prevent the outbreak of a disease. This section may also give authorities the capacity to inspect "persons travelling by railway or otherwise, and the segregation, in hospital, temporary accommodation or otherwise, of persons suspected by the inspecting officer of being infected with any such disease". The sub Section 2A offers power to the central government to inspect any ship or vessel arriving or leaving at any port, and detention thereof, or any person intending to sail therein, or arriving thereby, as may be necessary.

**Section 188 of IPC**

The section 188 of Indian Penal Code (IPC) specifies the "penalty for

*disobedience to order duly promulgated by a public servant*". The disobedience to cause or risk obstruction, annoyance or injury to any individual employed for public service draws in basic detainment up to one month and/or fine up to two hundred rupees. In the event that noncompliance endangers life, health or safety, and tends to cause riots, at that point punishment may increase up to six months of detainment and / or one thousand rupees.

#### **Disaster Management Act (DMA), 2005**

The DMA was enacted in 2005 in a reaction to Tsunami, 2004 and applicable to entirety of India. The DMA is generally framed for effective preparation, mitigation and overseeing a natural or man-made adversity, mishap or a catastrophe such as tsunamis, earthquakes and cyclones. These happenings are often geographically-localized catastrophic events, disturbing normal life for some hours or days, but unlike a public health epidemic, do not last over a long period of time (19). The "Guidelines on Management of Biological Disaster, 2008" and "National Disaster Management Plan, 2019" give measures to address the biological disasters and health emergency in India. The DMA offered the central to utilize the regulatory framework and reserves under disaster response at different levels to relieve the impacts and prevent the spread of disaster. In differentiate to natural disasters, physical evacuation of people from an affected area to a relatively secure zone is not an alternative during a pandemic due to the chance of the spread of the infection.

#### **Current COVID 19 SCENARIOS And Merger Of The Three Act By Goi.**

Composite regulatory framework is an integral portion of public health response mechanism as adopted by the Center and state governments to deal with this health emergency. In the absence of a complete Act, this framework tries to adapt to the changing population dynamics, disease spectrum and the prevailing environmental context for swift and effective control and management of health emergencies. This combined approach not only directs the government to act responsible and accountable, but also empowers the citizens of their responsibilities and rights (20).

The Union and states have managed to put up a coordinated response largely on the basis of the Epidemic Diseases Act (EDA), 1897; and the National Disaster Management Act (NDMA), 2005. The wide architecture and flexibility of the two Acts have permitted both Union and state government to address pandemic in assorted ways. While the Union government can take preventive emergency measures to control epidemic diseases at ports of entry and exit, states are engaged to adopt preventative regulatory and administrative measures to contain pandemics, such as restrictions on mass and religious gatherings, closing down recreational exercises and institutional teach and ordering businesses to work from home.

Though the COVID-19 pandemic response in India was touted as one of the best in the world, the reality is far from over. The combined response of EDA including Ordinance 2020 and DMA was insufficient for smooth and effective containment and control of COVID-19 pandemic. Several lacunae in pandemic management were exposed. In order to reach a plausibility of unpacking as to what will become of the response of India to handle possible future dynamics of the COVID-19, there is a need to dissect and translate how our country has handled this Pandemic so far.

#### **Critical analysis of EDA in Context of COVID-19 Pandemic:**

Despite nearly quarter and century old, the EDA is the only Act instituted at National level to combat and control epidemics. Apart from bestowing powers on central and state government to take necessary steps to contain epidemics, the Act also have provisions for penalizing people for disobeying the promulgated orders related to epidemics. The Samaritan efforts are protected under this Act. Though, the EDA is relevant and still applicable, it needs a revisit

in the context of changing and available scientific evidences.

In 2006, an American epidemiologist Dr Larry Brilliant, who was part of the World Health Organization team that worked to eradicate smallpox in India, predicted that the next pandemic could kill 165 million people (21). "Early detection, early response" is the key to successful prevention and mitigation of pandemics, he reiterated. As per experts, the provisions of the Epidemic Disease Act have not, till now, gone under judicial scrutiny. The global health emergency COVID-19 offers a solid chance for the Union Government to amend the country's enactment. To prevent and control the entry, propagation and presence of any infectious disease in India, strengthening of the legal structures is required. The use of combined legal framework, an ad-hoc legal architecture with a multiplicity of statues has resulted in a patchwork response against the epidemic in several areas. Moreover, the regulation centric EDA needs further scrutiny amidst the concern over human rights, and adaptation to the health sector reforms in the wake of disease surveillance and disease control (20).

The EDA is an Act with limited provisions. The four sections under this Act provide wide discretionary and reactionary powers to government but overlooking the followings; (a) organizational structure, (b) defining the roles and responsibilities of the various levels of government, (c) specifying the rights and responsibilities of the general population and (d) preparation of the government for an infectious disease outbreak.

Without any organizational structure the scalar chain is interrupted. The harmony of implementation of measures gets hampered leading to incoherent response in different parts of the region/country. Under section 2 the state government can empower any person to take necessary measures to contain the epidemics. But it does not specify who the person will be and under what context (s)he can be bestowed with the powers. Who and how the conferred power will be monitored to prevent misuse? During the COVID-19 pandemic the Government of Odisha conferred collector power to panchayat Sarpanch in good faith to contain the epidemic. (22) To large extend it has worked but there were reports of misuse of power by few of the Sarpanch. The amendment to Danish Epidemic Act (23) is one example where the Danish government has centralized the power on health ministry during the COVID-19 pandemic for better control and response mechanism. The Danish Epidemic Act, 1915 has specific clauses and has granted power to government especially the ministry of health to impose special rules by issuing executive orders. The most important amendment of the Act was the centralization and transfer of power from the regional Epidemic Commission (decision making body) to the health minister to adequately and effectively respond to an epidemic. The Act also bestows power on government to prohibit assembly of more than 10 persons.

The skill, vision and intellectual capacity of epidemiologist, infectious disease specialist or public health specialist is of utmost important in containment and control of epidemics. However, the EDA in current format does not mention such roles. Rather such roles are being taken over by officials untrained for control of epidemics.

There were no provisions of scientific guidelines for suspect, inspection, quarantine, isolation and treatment. No measure has been provided in the EDA for the quarantine and isolation centers. The EDA reflects the scientific and regulatory mechanism existed during the late 19<sup>th</sup> century. It did not follow the understanding of the evolving scientific approach for prevention and response to epidemic. The EDA is silent about the surveillance mechanism for diseases with epidemic potential, and research, development and distribution of vaccines in the current context. All these has led to multiple guidelines being circulated since the beginning of COVID-19 pandemic. The implementing workforce comes clueless regarding what to follow and gets tired of frequently changing

guidelines. The EDA was centered around the prevention of spread of the epidemic neglecting the management of cases. The Act lacks clear guidelines for distribution of vaccine and drugs being developed during the epidemic/pandemic situation.

The provisions under the law seem to be insipid. The term "dangerous epidemic disease" is not defined despite the state governments are empowered to act upon under the law. Neither the definition nor the nomenclature body has been defined for the works 'lethal' or 'infectious' or 'contagious diseases' in the entire legislation. The EDA also does not specify who will decide the "dangerous" nature of the epidemics and base on what criteria.

The government is empowered to inspect and regulate only the ships or vessels leaving or arriving in India. The act is too much ship-oriented and quiet on 'air travel,' which was rare at the time it was created but is now essential to be given proper consideration. The Act is also silent about travel and transport within the country by various means like train, bus, private means etc. With air travel becoming the principal mode of international travel, and the increased migration, higher density, urbanization and industrialization resulting in higher population movement within the country, some provisions related to population movement need relook. Such factors have contributed over the years to a change in the transition and propagation of communicable diseases. The COVID-19 (Amendment) Ordinance 2020 (17) empowered government to regulate other modes of travel to and from, and within in the country. However, the ordinance is temporary and last till the existence of COVID-19 pandemic. The question "After the COVID-19" needs to be addressed and such provisions need to be incorporated in the Act.

The EDA empowered local authorities to take necessary steps to control the spread of epidemic if the government feel the necessity of such steps during an epidemic. The Siracusa Principles also advocates for imposing limited restriction on human rights in pursuit of public health and to restrict spread of dangerous diseases. The restrictions should be imposed in a planned manner within the legal framework, scientifically proven and strictly necessary. (24) However, the coercive actions adopted by the authorities to contain the epidemic sometimes violate the human right. Reports of such coercive actions by the implementing officials have been reported from some parts of India during this COVID-19 pandemic. The legislation does not provide provisions for the protection of human rights. Moreover, this act does not provide for how the powers bestowed on the government may be exercised in breach of any existing statute. Hence, it is necessary that the Act should also have provisions about the safety of human rights during emergency times. The Public Health Emergency Response Act, Mexico (25) states that the management of the public health emergency should be in a manner that reserves the civil rights and liberties of individual persons. The Act defines clearly under which circumstances a person may be quarantined or isolated, the vaccination and treatment protocol, and the hygienic conditions that need to be maintained at the center. The Act also does not have provision for grievance redressal mechanism.

The spread of epidemic is inevitable without the co-operation and support of the public. However, the EDA is silent about the roles and responsibilities that the general public should play. The COVID-19 (Temporary Measure) Act (CTMA) 2020 (26) of Singapore gives specific guidelines for the general public to act for prevention of spread of the disease. The COVID-19 (Temporary Measures) regulations 2020 under CTMA warrant every individual to stay at or in, and not leave, his or her ordinary place of residence in Singapore unless to the extent necessary for some specified purposes.

The EDA penalizes offenders under section 3 for disobeying the promulgated order to contain the epidemic. But the penalty seems too little to prevent recurrence of such incidents. Again the penalty imposed under the EDA is non-compoundable. This may help little

in deterring the people from repeated offences. Though this has been addressed with increasing the penalty and punishment under the COVID-19 (Amendment) Ordinance 2020, that seems temporary. The amendment should be reflected in the Act.

The section 4 of the EDA specifies the protection of front-line workers from complaints or legal action. But it doesn't specify what kind of protection measures will be provided if they themselves become infected or sustain physical/mental trauma during the course of service for epidemics. The section is also silent about the compensation in case of death or permanent/temporary disability suffered by the frontline workers on duty.

The dynamics of health care delivery has changed post-independence. In the last couple of decades the private health sector has emerged as the cornerstone of health care delivery mechanism in India, The private sector contributes to more than 80% of health care delivery services in India. (27) Despite invoking EDA several times during past epidemics, inclusion of private health section in fight against the epidemic has never been streamlined.

### Way Forward

The EDA is century old and needs reforms in the context of changing socio-political scenario and availability of advanced scientific knowledge for prevention and response to epidemics. Though few other Acts relevant or related to control of epidemics exist, they are not well coordinated and articulated to the current context. There is a need to modify and add relevant clauses to the existing EDA in current statute to make it comprehensive and actionable considering the socio-political milieu and scientific advancement.

**First**, the Act should provide a structural body like NDMA, having representation from both the Centre and states, responsible for designing and implementing well-coordinated surveillance, identification, contact-tracing, quarantine, isolation, testing strategy and treatment. The act should specify the members of decision-making body. The body should also be well represented by health professionals especially the public health experts (epidemiologist/ infectious disease specialist) of the country. The Act must also empower the body to plan a comprehensive and reasoned lockdown strategy if needed, taking into account disruptions to supply lines, essential and non-essential services, human migration, relief and food support and all non-health services and utilities.

**Second**, the Act should provide the clear direction and guidelines for the government to act swiftly and effectively. The lineage of authority should be clearly defined.

**Third**, the Act must have provisions, in case strict containment measures like lockdown or shutdown are to follow, to allow for multi-sectoral emergency financial support and relief measures to local authorities, farmers, businesses and health care providers, and for animal care and livelihood safeguards.

**Fourth**, the Act must provide adequate autonomy to states to design and enforce responses as per their local assessments, such as preparing health facilities to respond to various challenges at the district-, block- and gram panchayat-level. For example, the Odisha Government's conferment of powers of the Collector on sarpanches to enforce isolation and quarantine of the migrant workers returning home from outside.

**Fifth**, the Act must put in a more robust disincentive scheme to deter people from abusing or mistreating frontline workers and at the same time safeguarding against its overuse or misuse. This may include both civil and criminal penalties.

**Sixth**, the Act should specify the duties and responsibilities of the general public at the time of epidemic. At the same time the Act should also focus on the rights of the individual especially those

who are suspected, quarantined and isolated.

**Sixth**, the Act should have provisions how best the private health sector can be involved during epidemic to provide comprehensive and optimum health care services to the community.

#### CONCLUSION:

The century old EDA 1897 is the only existing legal means of control epidemic in pan-India. The EDA in existing form along with other legal frameworks available/adopted by some states are not enough to tackle epidemics holistically. The existing EDA needs a relook amidst the changing public health priorities and the socio-political milieu. There is a need of new Act as has been tabled on parliament (Public Health Bill 2017). This Act needs to be comprehensive and should provide explicit description of the various measures including the structural organization of implementing agency. Arguably, the role of epidemiologist/public health specialist/infectious disease specialist should also be given the prime importance along with fundamental right protection of civilians.

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