

Adopting a public systems approach to COVID-19

Right now, India's public health infrastructure and its responsiveness should be the principal concern of the government

The progress of COVID-19 in India varies across States. The virus is now spreading more rapidly in southern India including States which had earlier received worldwide attention for 'flattening the curve'. The surge in Kerala has not yet led to an appreciable increase in the mortality rate though. At the other end of the spectrum, Maharashtra and Delhi have slowed the rate of growth of cases but have registered higher mortality rates than most States. Gujarat is no longer the national epicentre but has registered the highest mortality rate of all. Maharashtra, Delhi and Gujarat are among the wealthiest regions of the country. It would seem from this that for a society, wealth is not necessarily health, leading us to surmise that the relation between them is mediated by something else, possibly the availability of public goods.

Characteristics and provision

A public good has the characteristic that it is accessible to all. Clean and sanitised public spaces, made possible by deploying a society's public health infrastructure, are a perfect example of a public good. The isolation and quarantining of infected persons implemented by a public agency would be another. In both these cases, members of a society benefit from the existence of a public good, which secures their health without having to pay for it, at least not directly. However, this characteristic has implications for public-goods provision. The feature that it does not exclude makes it unlikely that the private sector, motivated as it is by profit, will supply the necessary health infrastructure in sufficient quantity and at prices affordable to all. So, public goods would have to be publicly provided.

Two States of India where the existence of a relatively better public health infrastructure has diluted the impact of COVID-19 are Goa and Kerala. Goa has one of the lowest mortality rates in the country outside northeast India. Kerala has recorded a slightly higher death rate but also had faced greater challenges early on with travellers returning from the hotspots of the world, namely Wuhan (China), Italy and the United Arab Emirates. Subsequently, the trickling in of emigrants turned into a rush. The number of cases rose in the State but, as said, the death rate did not rise significantly. It may be mentioned that the public health infrastructure is to be understood as comprising hospitals and medical personnel. In a crisis, the role of the latter is perhaps more important. And, 'personnel' are more than just doctors. It includes nurses, health assistants, laboratory technicians and sanitation workers.

Infrastructure and outcome

Health outcomes are the result of an interaction of forces ranging from the level of expertise of health personnel to the civic sense of a population. The latter is manifested mainly in the willingness of the public to cooperate with the drive against the disease by using masks and adopting social distancing in public. However, we have reason to believe that the existence of a well-functioning public health infrastructure is central. This can be seen from its distribution across various States. As the measure of infection is directly related to the extent of testing, it is safer to rely on the mortality rate as the indicator of resistance to COVID-19. Now, outside the northeast, where many States have remained relatively unscathed, Maharashtra and Gujarat have recorded among the highest mortality rates and Goa and Kerala among the lowest. As of June 25, Ministry of Health data show Maharashtra and Gujarat with mortality rates that are six and eight times, respectively, that of Kerala's.

We can see a relationship between basic indicators of the level of public health infrastructure and mortality in these two sets of States. Take the per person availability of allopathic doctors, hospitals and

beds in the public sector. In each of these categories, Maharashtra and Gujarat do much worse than Goa and Kerala. Goa does better than Kerala on all indicators other than hospitals per person, registering a lower mortality rate.

Even though much more research is needed to establish the role of the public health infrastructure, the observed association between it and a population's resilience in the face of COVID-19 is striking. It is important to understand that there is nothing inevitable about the sparseness of the public health infrastructure in Maharashtra and Gujarat. It is just that they chose to devote a far lower share of their national income to public health, despite their higher aggregate and per capita incomes compared to some other States.

So, States of India harbouring greater wealth than most have registered a higher mortality rate from COVID-19 even as some with far less have succeeded in containing them. In a way, the former face challenges that the latter mostly do not — mainly crowded urban spaces where social distancing is not possible. However, it is likely that their weaker public health infrastructure left them less resilient to the epidemic, resulting in higher mortality. Clearly wealth is not always health; when an epidemic strikes public capital in the form of a strong health infrastructure is.

Poor utilisation

We would however be advised to go beyond a focus on physical assets, such as hospitals and ventilators alone if we are to understand what determines a society's resilience to an epidemic. It has long been recognised that 'how you use it' may matter more than 'how much you have' when it comes to any asset, particularly public capital. We may have only of late started worrying about our public health infrastructure but we have for long been aware that much of India's publicly created infrastructure is poorly utilised. In particular the vast sums spent on irrigation have not resulted in a commensurate expansion of the area irrigated, at least in a truly functional sense. That this is a valid concern is evident when we note that Goa spends no greater a share of its domestic product on health than Gujarat does but turns in a much lower mortality rate. It suggests that the same amount of government expenditure can go much further with better stewardship.

A public systems approach is needed to first understand and then to address situations such the one we are now facing as the epidemic swirls about us. It takes into account both the physical resources available in the public domain and the practices adopted in governing their use. Every day we are reminded of the lapses in these practices. And death is not the only impact of COVID-19. There is also the distress it unleashes upon the living and the trauma that results from it. We read of bodies left beside patients in a prominent public hospital in Mumbai, of a man trying to revive his mother by himself in an isolation ward of a government hospital in Agra, of a woman giving birth in an autorickshaw as she was refused admission to several hospitals, including a government one, in Bengaluru (out of the unverified fear that she may be a spreader of COVID-19), and of a stalling crematorium at Delhi's Nigambodh Ghat. Not all of this necessarily reflects the niggardliness of the public health infrastructure in the richest parts of the country. It is also a case of a lack of accountability in the public health sector. Right now, India's public health infrastructure and its responsiveness should be the principal concern of the government. Adopting a public systems approach to the problem is the key.

Meanings of Difficult Words:

- ❖ **responsiveness** (noun) – reactivity, approachability.
- ❖ **surge** (noun) – sudden increase, rise, growth.

- ❖ **flattening the curve** (phrase) – In epidemiology, the idea of slowing a virus' spread so that fewer people need to seek treatment at any given time is known as "flattening the curve".
- ❖ **mortality** (noun) – (in a particular time/for a cause) the rate/number of death.
- ❖ **spectrum** (noun) – wide range, scale, gamut, ambit.
- ❖ **epicentre** (noun) – the main/central point of unpleasant or problematic situation.
- ❖ **surmise** (verb) – assume, conjecture, suppose.
- ❖ **mediate** (verb) – bring about, cause, effect, make happen.
- ❖ **characteristic** (noun) – attribute, feature, aspect.
- ❖ **provision** (noun) – supply, distribution, delivery.
- ❖ **public good** (noun) – a product or service that benefit all members of society and it is often provided as free/at no charge.
- ❖ **sanitised** (adjective) – disinfected.
- ❖ **deploy** (verb) – use, utilize, make use of.
- ❖ **isolation** (noun) – a complete separation from others of a person known or reasonably believed to be infected with communicable diseases.
- ❖ **quarantine** (noun) – a process of separating out people, animals and things (such as plants) from others for a period of time in order to control/restrict the spread of a contagious disease; 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.
- ❖ **implications** (noun) – consequence/ outcome, ramification, repercussion.
- ❖ **relatively** (adverb) – comparatively, proportionately, somewhat, to a certain extent/degree.
- ❖ **dilute** (verb) – diminish, reduce, decrease.
- ❖ **hotspot** (noun) – a limited region/area in which a large number of people have tested positive for COVID-19 in several smaller groups or clusters. In general, hotspot means "a place of significant activity".
- ❖ **trickle in** (verb) – come gradually, occur slowly.
- ❖ **rush** (noun) – (strong & sudden) surge.
- ❖ **personnel** (noun) – staff, employees, workforce.
- ❖ **perhaps** (adverb) – maybe, possibly.
- ❖ **sanitation** (noun) – it generally refers to the provision of facilities and services for the safe disposal of human urine and faeces (Courtesy: WHO).
- ❖ **expertise** (noun) – skill, proficiency, knowledge.
- ❖ **civic sense** (noun) – social ethics; ethics followed by the people in public.
- ❖ **manifest** (verb) – indicate, show, display, exhibit.
- ❖ **drive** (noun) – campaign, movement, effort, push.
- ❖ **social/physical distancing** (noun) – a term means actively avoiding crowded public places, is a key element in decreasing the rapid spread of COVID-19. This is an effort intended to limit exposure by reducing face-to-face contact and preventing spread among people in community settings.
- ❖ **measure** (noun) – amount of something.
- ❖ **extent** (noun) – level, magnitude.
- ❖ **rely on** (phrasal verb) – depend on; resort to, have recourse to.
- ❖ **resistance** (noun) – ability to fight off, ability to counteract/withstand, immunity from, defence against.
- ❖ **unscathed** (adjective) – unhurt, undamaged, unharmed.

- ❖ **allopathic** (adjective) – relating to the science-based, modern medicine.
- ❖ **resilience** (noun) – strength, toughness; the capacity to recover quickly from difficulties.
- ❖ **in the face of** (phrase) – when confronted/faced with; despite, notwithstanding, regardless of.
- ❖ **striking** (adjective) – unmistakable, distinctive, strong.
- ❖ **inevitable** (adjective) – certain, foreseeable, expected.
- ❖ **sparseness** (noun) – scantiness, insufficiency, deficiency.
- ❖ **devote** (verb) – allocate, assign/allot, commit, give.
- ❖ **aggregate** (adjective) – total, combined, whole.
- ❖ **per capita** (adverb & adjective) – per person, for each, individually.
- ❖ **harbour** (verb) – foster, nurture; possess, maintain, retain.
- ❖ **resilient** (adjective) – strong, sturdy, stout, durable.
- ❖ **epidemic** (noun) – widespread disease/illness; outbreak, plague, scourge.
- ❖ **strike** (verb) – affect, afflict, attack.
- ❖ **utilisation** (noun) – an effective use of something.
- ❖ **go beyond** (phrasal verb) – to go past something, to be more than something, exceed.
- ❖ **ventilator** (noun) – a respirator, a device (used for a patient to breathe).
- ❖ **irrigation** (noun) – the process of (artificially) supplying water to farm land to grow crops & plants.
- ❖ **commensurate** (adjective) – equivalent, equal, corresponding, comparable, proportional.
- ❖ **stewardship** (noun) – it is a set of principles that forms the responsible planning and management of resources. Stewardship can be applied to the environment and nature, health, technology, economics and etc.
- ❖ **address** (verb) – tackle, deal with, attend to, try to sort out.
- ❖ **swirl** (verb) – circulate, revolve, spiral/spin.
- ❖ **take into account** (phrase) – consider, note, bear in mind.
- ❖ **in the public domain** (phrase) – if something (e.g. information) is in the public domain, people generally know about it since it is not secret.
- ❖ **lapse** (noun) – failure, mistake, blunder/oversight.
- ❖ **distress** (noun) – hardship, adversity, misfortune, difficulty, trouble.
- ❖ **unleash** (verb) – let loose, release, set free.
- ❖ **trauma** (noun) – torment, distress, suffering.
- ❖ **revive** (verb) – rescue, save.
- ❖ **stall** (verb) – check, stop, halt, restrict.
- ❖ **crematorium** (noun) – a place where dead body is burned.
- ❖ **reflect** (verb) – indicate, show, reveal, exhibit.
- ❖ **niggardliness** (noun) – unwilling to spend, reluctant to give; ungenerousness, close-fistedness, penny-pinching.
- ❖ **lack of** (noun) – absence, deficiency, scarcity, dearth.
- ❖ **accountability** (noun) – responsibility, liability, answerability.