India's COVID-19 Response: The Missing Links That Failed Us

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Abstract

The response to the second surge of the pandemic brought out significant deficiencies in our healthcare delivery systems. The over-emphasis on a dysfunctional tertiary health care system undermined the necessity of building a robust primary health care network in India, in the last 75 years. This coupled with a lack of reliable epidemiological data saw our planners get caught off-guard which reflected in the response to this present wave of the pandemic. The absence of standard guidelines or the presence of ones that lacked adequate evidence prevented healthcare providers from providing evidence-based care to the people affected by the pandemic. Drugs or treatments that showed little or no efficacy in managing the disease were prescribed to millions due to poor regulatory oversight. The over-reliance on drugs and hospitals instead of the creation of a robust primary health care system has left even the so-called "pharmacy of the world" in a state of shock and despair. Primary health care is the most crucial component of any healthcare system in the world which can help fight pandemics like the present one as well as maintaining a healthy society. The presence of a strong and empowered force of general practitioners would have helped manage the pandemic much better than what we have seen in the past few months. The lessons learnt in the past year, tells us that decisions made in the wake of this current pandemic, to help strengthen our primary health care system will go a long way in creating a resilient and healthy India as envisaged in the "Alma Ata Declaration" on primary health care more than forty-three years back.

Keywords: COVID-19, pandemic, primary health care, general practitioner, public health India

Introduction

The second wave of COVID-19 pandemic created an emergency-like situation in the whole of India with more than 180,000 people died due to the virus in just a span of six weeks.[1] More than 50% of the total cases and deaths due to the COVID-19 pandemic in India happened during the 6 weeks of the second wave.[1] At the peak of this second wave during the first week of May 2021, we saw approximately 400,000 confirmed cases of COVID-19 every single day.[1] The country was witnessing approximately 4000 deaths from the virus every single day during the third week of May.[1] The cumulative number of confirmed cases affected by COVID-19 was 28.69 million with approximately 344,000 total deaths till the first week of June 2021.[1] The response by our public health system to the greatest pandemic that mankind has seen in a century says a lot about the broken system that we have nurtured for almost 80 years. During the first wave, we were thinking about creating more hospital beds, which led to a surge in temporary hospitals even turning railway coaches to hospital wards. We lost a whole year which could have been used to plan and implement a graded response to any further wave of the pandemic because of a visible lack of coordinated efforts by both the centre and the state governments. During our independence, private healthcare accounted for less than 10% of the total healthcare provision in India [2] which has raised manifolds in the coming decades. Although our private health spending is around 72% of the total health spends,[3] a pandemic being a public health emergency requires a government to take the lead in managing it and not leave it to private players. There is no way any epidemic leave alone a pandemic of the nature of COVID-19 can be managed by a conglomeration of private organizations that have to willy-nilly cobble up together, led by a clueless public health system. A country with a good public health care system does not resort to knee jerk reactions that we have seen throughout the pandemic. India has been successful in creating a robust National Disaster Response Force (NDRF) which has been able to save millions of people over the years since its creation in 2006. There are guidelines in place to manage disasters

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and these are percolated to one and all in the organisation.[4] Unfortunately, we have not been able to create a robust public health system in India. This has left public health to be just a topic to be discussed in seminars and meetings followed by lavish dinners, funded by international funding agencies.

The response to the COVID-19 pandemic raises a very basic question: Is our concept of medical care limited to hospitals and hospital beds? Whenever there is a talk of revamping the healthcare system, we tend to talk about increasing the number of hospital beds and more so Intensive Care Unit (ICU) beds. Let us try to understand where the fault lies in our approach to healthcare in India.

The Missing Data

One of the biggest nightmares for epidemiologists in the world is the lack of availability of good data and for a diverse country like India where healthcare is largely unregulated, it is the absence of any data. No epidemiologist in the world can plan for the future without data. The reason we have opinions floating around from different quarters in India instead of guidelines is primarily due to the absence of data which helps people to speculate at will. If for the moment we discount the condition in India and look at the data from one of the richest economies of the world, we will be able to understand where our notion about healthcare across the world is wrong. Let us take the case where there was a peak in the weekly number of new COVID-19 cases in the USA around the 10th of January 2021 (Figure 1), when there were around 1.72 million new cases for that week.[1] During the same time, the number of new hospital admissions for COVID-19 was 116,329 (Figure 2) for that particular week [1] out of which there were 28,369 patients (Figure 3) in the ICU for COVID-19 [1] across the US (which included new admissions). The data tells us an interesting story; out of the total COVID-19 patients during the peak of the pandemic in Jan 2021 in the USA only around 6.76% had to be admitted to a hospital in a country that boasts of a much better hospital infrastructure than India. The number of people admitted to ICUs for COVID-19 related complications across the length and breadth of the USA on the 10th of January 2021 was around 1.6% of the new cases of COVID-19 that week (the number of admissions also counted people admitted in the previous weeks). In a country like the US where tertiary care facilities are way better in quality and quantity in comparison to India, the number of people managed outside hospitals by the primary healthcare system was around 93%. In a resource-poor country like India, the people managed outside hospitals will be far higher but the emphasis has always been on hospitals and ICUs where a minuscule amount of people reach for treatment. Even after a whole year of suffering due to the pandemic, we have failed to understand the simple fact that "healthcare should not be left to be managed within the four walls of hospitals, let alone managing a pandemic".

An inappropriate approach has been taken by healthcare policymakers for the past 75 years, in trying to manage health care from the top, from the apex centres in metropolitan cities and different tertiary care centres which cater to less than 5% of healthcare. It is amusing to see doctors wearing operation theatre gowns in television interviews during an epidemic, talking about epidemiology and public health. The last year the talk was about ramping up hospital beds, this year it is about increasing oxygen supply besides the procurement of esoteric drugs to manage complications of the disease. A lack of primary healthcare infrastructure ruined our chances of managing the second wave of COVID-19 that came to ravage cities and towns across the country. Instead of a proper primary healthcare response, people were left to flock to tertiary centres which were not geared to manage the majority of cases.

The number of hospital beds per thousand people in India is around 0.5 per 1000 people and if we look at the same data for the USA it is 2.9 per 1000 people.[5] The number of hospital beds per 1000 people in India will add up to roughly 650,000 hospital beds all across India i.e., in 28 states and 9 union territories put together. Most of the hospital beds are situated in large cities in the country out of the reach of the majority of the people in India making it even more important to strengthen our primary healthcare system and take out healthcare from the close quarters of hospitals.

The Missing Guidelines

Adding to the misery of the people as well as healthcare workers, was the lack of one standard guideline for managing such a dreaded pandemic. Nodal agencies like the Indian Council of Medical Research (ICMR) and the Ministry of Health were giving out guidelines most haphazardly and sporadically which imparted little help to healthcare professionals. The whole year saw multiple knee jerk reactions by different nodal agencies that were supposed to have led us out of the pandemic. It was a free run for pharmaceutical companies to help sell their products in an already unregulated pharmacy market where even the latest generation antibiotic can be procured without a

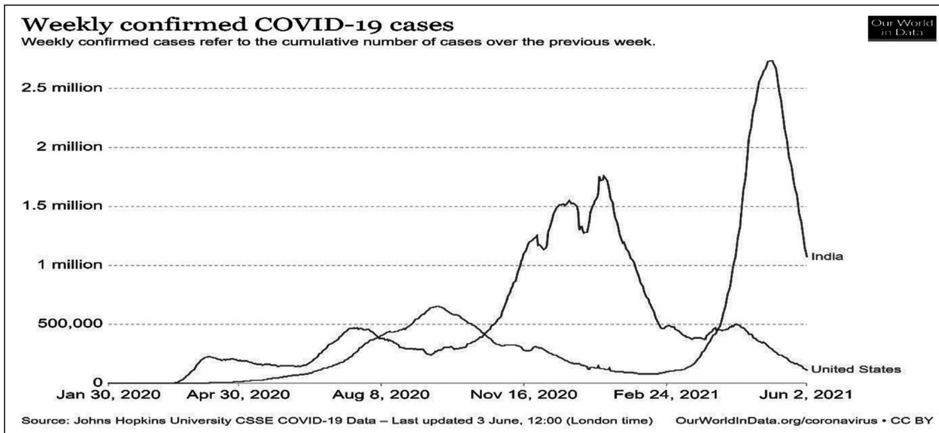

Figure 1: Weekly confirmed COVID-19 cases

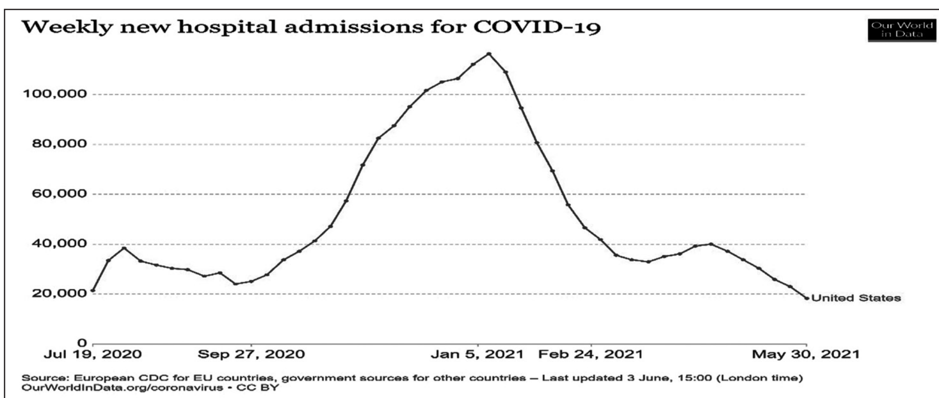

Figure 2: Weekly new hospital admissions for COVID-19

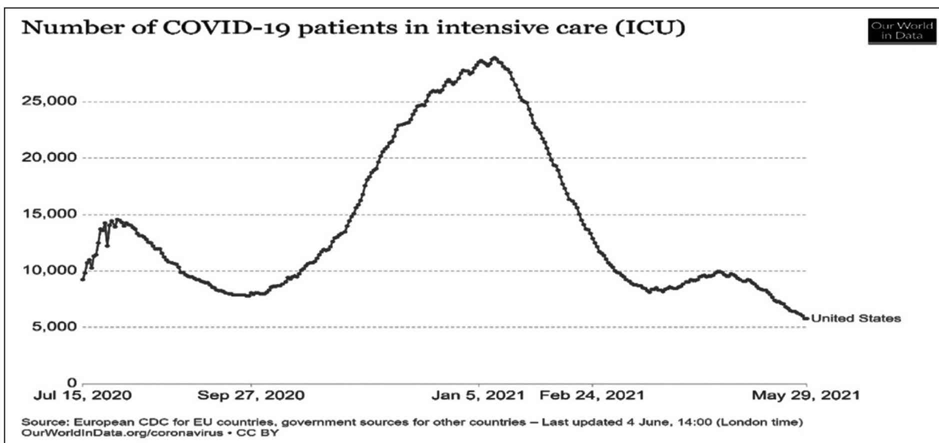

Figure 3: Number of COVID-19 patients in intensive care (ICU)

(it can at least kill some abdominal parasites that prevail in almost all Indian intestines). The role of Hydroxychloroquine for the management of COVID-19 did not have enough evidence but organisations like the ICMR went on put it in their guidelines as prophylaxis for healthcare workers,[6] the same was the case of the vague guidelines on convalescent plasma[7] which made thousands of people run around and generate millions of messages on social media for the same. An important flip flop seen as the continuous mention of the anti-viral agent Remdesivir in guidelines (albeit with caution) when the WHO recommended against the use of it way back in November 2020.[8] We still saw long queues for procuring the drug all across India long after the recommendation by WHO was in the public domain. This is the result of a country that never encouraged investment in health care research and heads of research agencies are brought in to manage headlines. There were several guidelines from different hospitals, available in medical circles, some of which were circulated by patients themselves. The small change in the cut off of oxygen saturation to 94% sent panic attacks across the country. We could see people using non-standardised pulse oximeters and looking at figures like 93% or 94% and panicking their way to hospitals for an oxygen bed while being advised some steroids by a local doctor. Radiology centres were overbooked with hundreds if not thousands of HRCT chest done every day during the peak 6 weeks of the second wave and most were done without any valid prescription from a medical practitioner. With the huge load on CT scan centres, it is expected that radiologists would tend to err on the side of caution and may tend to overestimate the ground

valid prescription. Manufacturers and traders of drugs like Ivermectin, Favipiravir, Zinc, antibiotics like Doxycycline and Azithromycin made huge profits, all because of unclear guidelines or the lack of it. Medical practitioners are flooded with different guidelines from different sources at different times. People like us resorted to following the first principle of treatment "do not harm" by prescribing drugs like Ivermectin, which was of no use against COVID-19 but will do little harm

glass opacities in the lungs to give higher CT scores, due to the lack of very clear-cut guidelines for scoring CT scans. As there were no clear guidelines, medical practitioners (including the author), had no choice but to prescribe a battery of lab investigations every other day to prevent any eventual emergency, thus costing patients a lot of money

Opinion Based Medicine

The halo effect around "great" doctors was prominent in TV rooms and newspapers where the discussion was on oxygen, steroids, Remdesivir, Tocilizumab and multiple cocktails of medicines. The press had new topics to discuss, from lack of beds, lack of vaccines, lack of oxygen and finally to Mucormycosis. We had medical professionals giving their regular pearls of wisdom for the consumption of the general public with less regard to norms of evidence-based guidelines. National bodies like the Central Drugs Standard Control Organisation (CDSCO) were busy granting restricted approvals to drugs with very little evidence in their role in the management of COVID-19. Pharmaceutical companies used surrogate marketing techniques by releasing partial documents in the public domain to be lapped up by over-enthusiastic people and to be finally circulated to millions within hours. We created a new cadre of people not trained in medical sciences discussing "cytokine storm", CRP, D-Dimer and a plethora of topics that may not be commonplace for even medical professionals.

The Missing General Practitioner

Why did India being "the pharmacy of the world" land up in a mess that we saw during the tsunami of the second wave of COVID-19 in India? The answer although not very simple, is not complicated enough. The management of COVID-19 is not based on drugs, oxygen or ICU beds alone, is based on common sense which is based on simple principles of primary health care. We were climbing up the wrong tree in both the first well as the second wave of COVID-19. Managing mild to moderate cases of COVID-19 is not rocket science. Mild to moderate cases can be managed using a simple guideline that can be implemented by a healthcare worker in a remote part of the country, if necessary, under the guidance of a qualified medical doctor sitting remotely somewhere. The mainstay of treatment for mild cases is over the counter drugs or drugs which a health care worker can dispense in a restricted manner. A healthcare worker under the guidance of a medical doctor is much better than unqualified practitioners, prevalent all across the country. Restricting primary health care to be in the hands of the few doctors present in rural and semi-urban areas is inappropriate. It is high time that we develop alternative health resources that can work in the field of primary care not only to manage epidemics but to also better and equitable healthcare delivery.

With specialisation taking over the medical industry, the good old neighbourhood doctor is nowhere to be seen. Young doctors would rather do a post-graduation in a non-clinical subject and become a professor in a medical college than opt for becoming a General Practitioner (GP). It is not that the Indian GP is nowhere to be seen, we can see Indian GPs helping manage the National Health Service (NHS) in the UK or the Medicare in Australia. GPs are the backbone of the NHS which is the largest healthcare employer in the world but do not have a place in the Indian healthcare system. The GP in the Indian healthcare systems ends up being a medical officer in the government or a hospital and is placed at the lowest rung of the ladder. In healthcare emergencies like COVID-19, it is the GP who is the best placed to manage it. Specialists or sub-specialists based out of tertiary care centre attend to the sickest of the sick and therefore require a different set of skill set to manage them. They have to resort to using the latest generation antibiotics to manage multidrug-resistant cases that land in their hospitals. The treatments adopted by specialists or sub-specialists are suitable for hospitalised patients but not for people being treated at home or outside the hospital set up. The lost self-image of the Indian GP in an overtly specialised system of medical care, coupled with inappropriate guidelines, led one to copy treatments of hospital-based specialists. Medications reserved for hospitalised patients were on prescriptions, for people at home or ones visiting stand-alone clinics. This is led to the overuse of drugs especially antibiotics and several other lifesaving drugs. We do not use a cannon to kill a fly and this is what was seen many times in the case of COVID-19 mismanagement in India the result of which was several unnecessary hospital admissions contributing to the emergence of dreaded complications like Mucormycosis. It was found that nearly 82% of cases of Mucormycosis in patients with COVID-19 were reported from India [9] which explains a lot about the healthcare system prevalent in India.

The rampant prescriptions of antibiotics coupled with an unregulated pharmacy system in India have already led to the emergence of several multi-drug resistant diseases. Unless there is a well-thought strategy to upgrade the status of the GP in India, we will continue to reel under multiple epidemics of communicable and chronic diseases. A broken primary health care

system can never help create a healthy country and a healthy India will remain a slogan like many other slogans in the past. We are waiting for epidemics of multidrug resistant tuberculosis and other infections to happen in India shortly if we do not have a proper primary health care system, coupled with strict regulations on selling medicines (which are enforced).

The Probable Way Forward

The Alma Ata declaration [10] to which India was a signatory 43 years has been just a part of the records to be asked in competitive examinations like the UPSC. The declaration rightly points out:

"Primary health care is essential health care based on practical, scientifically sound, and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part of both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family, and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first elements of a continuing health care process". Forty-three years later the statement holds true especially for resource-poor countries like India where universal healthcare is a far cry.

Even with very little assistance from different governments, primary health care systems across the world have been able to create smallpox and a polio-free world. Partnerships between doctors, nurses and other healthcare workers to create a robust primary health care system, is key to a good healthcare system. It not only helps in managing several communicable as well as non-communicable diseases but only in preventing the same. Disproportionate funding seen for the tertiary healthcare system will only provide limited access, high-cost care for whereas an investment in primary healthcare will cater to more than 95% of healthcare challenges faced by societies across the world. It is important to bring healthcare out of the four walls of hospitals and to the homes of people.

The Orissa super cyclone in 1999, the Gujarat Earthquake in 2001 and the Indian Ocean Tsunami in 2004 led to the creation of NDRF in 2006 [4] which has become a formidable force in not only rescuing people during disasters but also in preventing several disasters across the country. It is hoped that one of the greatest pandemics will help reorient our healthcare system to concentrate on the most important aspect of it, which is primary healthcare. If we do not learn our lessons from this pandemic, I do not think we ever will. A robust primary healthcare system manned by informed qualified and empowered people with a deeper understanding of primary healthcare will go a long way in creating a healthy society, thus increasing the quality-adjusted life years of people of this country.

Note: The views expressed in the article are the author's own.

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