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# **The challenge management by private hospitals in and around Pune during pandemic**

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**Abstract**--The Earth has so far survived five mass extinctions, the last one wiped out the dinosaurs as the dominant species on the face of this Earth, since the rise and dominance of humanity, mankind has always faced a perpetual challenge of survival, we have survived the Ice age, bronze age etc. and now are faced with the problems of poverty, pollution and population. One constant during this period has been the presence of microbes like bacteria and virus, the sixth mass extinction which is set on us in form of global warming is further accelerated by the rise of pandemics such as the Spanish flu of 1920s and the COVID-19 virus of 2020, even after a century, we have not seen the world invest in public healthcare much and when there is a mass level infection, the saddening horror story of hospitals running out of resources and unable to accommodate the patients, we have invested billions of dollars to be ready with a response in the eventuality of a war, but we have no preparation for the outbreak of a disease which is a certainty in the long run! The paper wishes to chronicle the challenges faced by private hospitals, their strategies implemented to overcome it and finally the key learning from the experience.

**Keywords**--pandemic, challenge management, private hospitals.

## **Introduction**

In the history of modern times, we are faced with an unprecedented pandemic, the Spanish Flu of the 1920s wiped out a significant chunk of the World Population, to make matters worse, there was the second World War which threatened the very existence of mankind as we know it. What has changed a century later, we are still unprepared, we are as countries, still heavily invested in

defense, procurement of arms, weaponisation of nuclear energy and so on. Most countries spend less than 2% of their GDP on healthcare of their citizens. In India the figure stood at a dismal 1.2% of the GDP. Hence, when Covid-19 struck as a global pandemic at the beginning of the year 2020 we were grossly unprepared and were in an awkward position due to the lack of resources to cater to our humongous population.

The Covid 19 pandemic has posed multiple challenges in varied shades for healthcare organizations like hospitals and testing labs, like insufficient capacity of beds, shortages of resources like medicines and oxygen, the need for specified design for care and processing protocol, and above all financial implications of COVID 19 issues terms of loss. Hospitals and testing facilities are extremely complex systems that function at uncertain times and manage volatile situations. The complex systems perspective assumes that organizational life is unpredictable and hence cannot be standardized and controlled. (Begun J.W.,2020)

In India, COVID -19 pandemic testing has shaken the healthcare system due to the huge population and fewer healthcare organizations. It was observed that the Indian government and private healthcare systems worked in tandem to fight the pandemic. The private Indian health care system rose to the challenge and in all support with the government such as testing, isolations, staff, and equipment. The second wave of the Coronavirus has impacted India in massive numbers not only in terms of cases reported per day or deaths reported per day but also in many challenges like oxygen supply, scarcity of skilled manpower and medicines, lockdown related issues, and much more. Maharashtra was the worst affected state and the city of Pune was one of the top three worst-hit cities during the second wave of covid 19. It was a period when the challenge was extremely wide and deep as it encompassed the entire society. Private hospitals were seen to take the responsibility of treating patients in line with the government hospitals. Armed with the opening of Covid centers, fever OPD, and vaccination drives private hospitals were seen to bridge the gap between the health care availability despite the non-availability of a constant source of funds. (WHO,2021)

Doctors, Nurses, and the Ward boys & aayas were working round clock to ensure control over the havoc caused by the sudden surge in COVID 19 patients in Maharashtra. It is essential to understand how these professionals handled the situations on the ground level. What kind of support did they get from the management? What kind of strategies did they apply to stay safe? How did they manage long working hours and stress due to the situation? The interviews and a few articles share some stories about the stress levels in medical professionals. (The Hindu,2021)

The private hospitals posed a variety of challenges including resource management and overall hospital management. The hospital management by itself was extremely difficult due to the ever-evolving situation and the necessity of bifurcate the covid and non-covid patients to keep all the patients safe and secure. The management of beds, supply of medicines, and accessories like PPE kits was a humongous task. It was essential for private hospitals to stand tall and test the time to be better prepared for the future.

Maharashtra state was worst hit during COVID 19 second wave with numbers ranging between 35000-50000 cases reported per day. More than 300 covid facilities were made available for the patients and yet the gap between available beds and required beds was substantially huge. Many private hospitals open the Covid specific wards and have contributed tremendously towards the betterment of society as a whole.

The efforts and problem-solving methods of such hospitals need to be documented and also scientifically studied so that this can help to manage future calamities well. The studies from ICMR have outlines certain government hospitals but no study has been undertaken to document the efforts laid by the private entity. The best practices documentation has always helped the practice to respond well to the challenges ahead. It assists to prepare the response to problems in a planned manner and finally contributes to achieving the common goal of a healthy society.

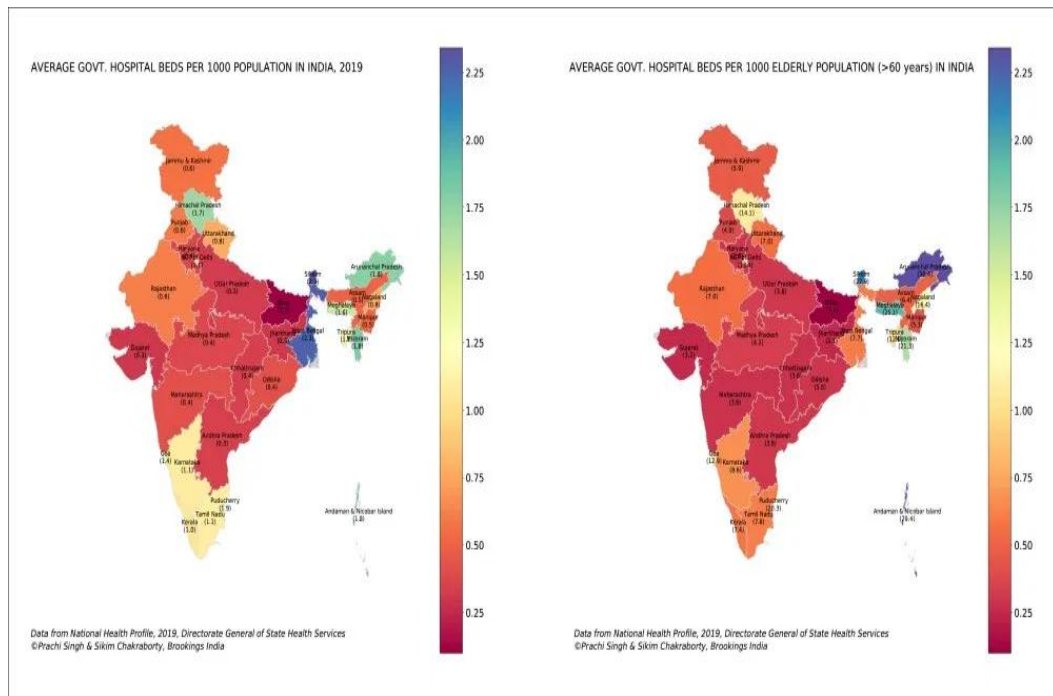
### **Literature Review**

The rapidly spreading coronavirus which originated in the city of Wuhan, China created the first pandemic of the 21st century. Countries like India with a population size of 1.34 billion had faced more than 3 million cases till today. Although the death rate was comparatively lower than European Counterparts' Indian government faced a larger than life battle with Coronavirus by deploying multiple strategies like computational modeling, statistical tools, and quantitative analyses to control the spread as well as the rapid development of a new treatment. Awareness campaigns and strict social norms created a sense of responsibility in most parts of the country. The central and state governments are taking several measures and formulating several wartime protocols to achieve this goal. (Bhatt et.al.,2021).

India's private healthcare sector has contributed significantly and accounts for about 60 percent of inpatient care(Indian express,2020). Most private hospitals added more facilities with significant investments in response to the COVID-19 pandemic, such as controlling and preventing the infection, building infrastructure for quarantine and treatment, and equipping the facility with suitable medical supplies and an additional workforce. Hospitals and labs also witness a sharp decline in revenue due to delayed elective medical treatments which add up to 40% this year. The outpatient departments were closed as per government regulation with further added losses (KPMG,2021)

Healthcare systems across the globe witnessed four key challenges in response to the pandemic. The first being the inadequate capacity to handle swelling patient volumes the second one is the need for real-time care redesign as per WHO and government regulations. The third challenge was a financial loss due to the cancellation of elective procedures and OPD and lastly, resource shortage and management were proven to be a big huge challenge in front of healthcare systems(Begun,2020). These challenges are definite to arise in any time future as any man-made or natural disaster health care system are challenged to suddenly adjust capacity, redesign care, and redeployment of resources.

The study carried out by Grimm (2020) in the USA suggests that Hospitals reported that their most significant challenges centered on testing and caring for patients with known or suspected COVID-19 and keeping staff safe. Hospitals also reported substantial challenges maintaining or expanding their facilities' capacity to treat patients with COVID-19. Hospitals described specific challenges, mitigation strategies, and needs for assistance related to personal protective equipment (PPE), testing, staffing, supplies, and durable equipment; maintaining or expanding facility capacity; and financial concerns.



Source: NIH 2019

The above diagram depicts the bed availability per state. The availability of beds and health care was scarce during the pandemic and hence it is observed that the private sector participated with equal responsibility in serving society (Paliwal 2020, Singh et al,2020).

The existing body of knowledge throws light on the health policy (Gautam et al,2021), one Health approach (Chattu et al,2018), responses to the epidemic by society (Swetha g, 2019), and per perspective Corona (Singh S,2020) but there are very limited literature resources to aid the best practices followed by the private hospitals in India. (Duggal,2004).

### Research Objectives

- a. To chronicle the challenges faced by private hospitals & strategies to overcome it.
- b. To categorize the challenges faced by the hospitals

## **Research Methodology**

As there were 126 private hospitals in Pune which were allowed to cater to COVID patients. The study tried to connect with all of them using survey method. The Administrative heads of these hospitals were contacted and the survey was filled via telephone as the admin head was able to fight on all fronts.

The parameters based on the literature review

1. Facility capacity
2. Number of doctors
3. Number of Suppliers
4. In-house oxygen
5. Financial liberty
6. Liberty to allocate resources

Survey questionnaire based on Likert scale was developed and the survey was administered to all the hospitals

## **Hypothesis**

Ho: The factors such as size, numbers of doctors, Number of medical/pharma supplier are having no correlation with ability to face the challenge

H1 The factors such as size, numbers of doctors, Number of medical/pharma supplier are having a positive correlation with ability to face the challenge

For the analysis of the data Pearson Correlation coefficient is used.

The factors such as Liberty to take financial decisions and resource allocation are analyzed using a normal pie chart which depicts the level of freedom given to administrative staff to take decisions.

## **Data Analysis**

The questionnaire was checked for reliability quotient using Cronbach alpha for pilot sample of 20 survey questionnaires. All the questions in the survey found to be reliable and hence the survey questionnaire was circulated to all 126 hospitals out of which 93 returned the survey back. After detailed scrutiny only 83 questionnaires were analyzed further.

The hypothesis was checked using Pearson correlation coefficient.

Ho: The factors such as size, numbers of doctors, Number of medical/pharma supplier, in house oxygen plant are having no correlation with ability to face the challenge

H1 The factors such as size, numbers of doctors, Number of medical/pharma supplier, in house oxygen plant are having a positive correlation with ability to face the challenge

## Correlations

		Facility Size	Number of Doc.s	Number of suppliers	In house Oxygen plant	Ease to face the Challenges
Facility Size	Pearson Correlation	1	.113	.133	-.627	-.037
	Sig. (2-tailed)		.856	.832	.258	.953
	N	5	5	5	5	5
Number of Doc.s	Pearson Correlation	.113	1	.995**	-.838	-.541
	Sig. (2-tailed)	.856		.000	.077	.347
	N	5	5	5	5	5
Number of suppliers	Pearson Correlation	.133	.995**	1	-.846	-.454
	Sig. (2-tailed)	.832	.000		.071	.442
	N	5	5	5	5	5
In house oxygen plant	Pearson Correlation	-.627	-.838	-.846	1	.431
	Sig. (2-tailed)	.258	.077	.071		.469
	N	5	5	5	5	5
Ease to face the Challenges	Pearson Correlation	-.037	-.541	-.454	.431	1
	Sig. (2-tailed)	.953	.347	.442	.469	
	N	5	5	5	5	5

\*\* . Correlation is significant at the 0.01 level (2-tailed).

As indicated by the spearman correlation coefficient the facility size, Number of doctors, Number of suppliers have negative correlation that essentially shows that these factors when high then challenge is difficult to manage where in having in house oxygen plant eases out challenge.

The Decision making power makes a lot difference in managing difficult times. The data shows that only 13.8% of the hospitals gave freedom o administrative officers to take financial decisions. Only 39.4 % hospitals give freedom to relocate or reallocate resources for the hospital in difficult times.

## Conclusion

The research hence suggests that challenges can be managed well provided the administrative offices have liberty to take right decisions. Hospitals having very high size of facility , higher number of paramedical and medical staff and strong pipe line of pharmaceutical supplier find it difficult to manage if there is no liberty to take decisions.'

**References**

1. James W. Begun, PhD and H. Joanna Jiang, PhD, NEJM Catalyst Vol. No. | October 9, 2020
2. Kinshuk Gupta, The Hindu, June 04, 2021 (<https://www.thehindu.com/sci-tech/health/mental-health-of-doctors-with-covid-trauma/article34725866.ece>)
3. Christi A. Grimm, US Department of Health & Human Services, Hospital Experiences Responding to the COVID-19 Pandemic: Results of a National Pulse Survey March 23–27, 2020 (<https://oig.hhs.gov/oei/reports/oei-06-20-00300.pdf>)
4. Bhat et al. (2021), Phage therapy in the Covid-19 era: Advantages over antibiotics, *Current Research in Microbial Sciences*, Elsevier
5. Gautam et.al ,2021, Addressing the relevance of COVID–19 pandemic in nature and human socio-economic fate, Springer ([https://link.springer.com/article/10.1007/s00477-022-02191-5?utm\\_source=xmol&utm\\_medium=affiliate&utm\\_content=meta&utm\\_campaign=DDCN\\_1\\_GLO1\\_metadata](https://link.springer.com/article/10.1007/s00477-022-02191-5?utm_source=xmol&utm_medium=affiliate&utm_content=meta&utm_campaign=DDCN_1_GLO1_metadata))
6. Duggal,2004, ” The slums of Panchkula” social change,vol 34(4),38-46