

# Healthcare in post-COVID India: A call for a decentralized healthcare system

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## ABSTRACT

Over the years, healthcare system in India has been largely centralized, expensive and impersonal. In a country where expenditure on healthcare is low, most healthcare expenditure is out-of-pocket and where most of the population continue to live in rural areas or in urban fringes, such a care is inaccessible, unresponsive and unaffordable. COVID pandemic exposed these realities further. Based on experiences of directly managing health services during COVID-19 pandemic in different settings and across different levels, authors of this paper argue for a decentralized, distributed and responsive health systems for India, that is likely to be more effective and sustainable in normal times, and in times of crisis.

**Keywords:** Covid-19, delivery of healthcare, integrated

## Introduction

Following the recognition of COVID-19 as a pandemic and its rapid spread, the Government of India announced a nationwide lockdown in March 2020. Restriction of movement and fear of contracting COVID-19 made it difficult for families to access healthcare for non-COVID illnesses. Many private healthcare providers closed their facilities to them, and government health facilities significantly reduced scope of their services.

In the first few months of lockdown, safe management of childbirths, immunization services and notification of tuberculosis reduced significantly.<sup>[1]</sup> Far fewer patients presented themselves at cancer hospitals for treatment, and patients

requiring eye care stayed away from hospitals. In the second wave of the pandemic as well, access and availability of healthcare other than for emergency treatment of COVID reduced significantly.

There are settings, however, where provision of healthcare was either less affected, saw an increased demand, or bounced back quickly during the pandemic and consequent lockdown. We are associated with three such organizations in India, cutting across levels (primary, secondary and tertiary), domains of healthcare (eye care, cancer care and primary healthcare) and geographic settings (remote rural, rural and urban). Based on these experiences, we argue for a decentralized and distributed health care system in the post-COVID India.

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## Eye Care at LVPEI Pyramid

LV Prasad Eye Institute is a not-for-profit comprehensive eye care services provider in the state of Telangana. Its services

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are delivered through its pyramid model. At the base are vision centers (VCs) in villages and semi-urban clusters. They are managed by community members trained intensively. VCs are linked to a network of secondary eye hospitals located at block headquarters, managed by ophthalmologists. At the next higher layer of the pyramid are three tertiary hospitals. At the apex is an advanced eye hospital that provides state-of-the-art eye care, designs eye care technology-based solutions and conducts cutting-edge research.

Vision centers provide eye care free of cost; a small margin is levied on spectacles. At secondary, tertiary and apex hospitals, there is a fee for services, but no patient is denied care due to their inability to afford care. The same care is provided to paying and non-paying patients.

During the initial period of lockdown, travel restrictions significantly affected utilization of care at all levels, dropping to almost zero in April 2020 [Figure 1]. During this period, the LVPEI team made over 800,000 telephonic contacts connecting with former and ongoing patients to reassure patients, dispel their fears and to understand the nature of support that their families may require. Home visits were made to the elderly and for post-operative follow-ups of all patients. Measures were taken to reduce risk of transmission within the VCs.

Following these measures, vision centers started receiving larger number of patients, and providing full scope of services. Further, during this period, the proportion of non-paying patients (who are likely to be poorer) at the secondary care centers was lower than those of paying patients. Within a couple of months of lockdown, the secondary hospitals also started providing extended scope of services, and the footfall of patients and number of surgeries bounced back to the pre-lockdown period. Compared to primary and secondary care centers; however, there was a significant and sustained drop in footfalls at the tertiary and the apex hospitals [Figures 1 and 2], due to the travel restrictions.

### Primary healthcare in remote, rural communities of South Rajasthan

Basic Health Care Services (BHS), a not-for-profit organization, runs a network of six not-for-profit primary healthcare clinics (AMRIT) in remote rural and tribal communities in

Udaipur district in South Rajasthan, India. The nearest functional health facilities are far and in absence of limited transport options, difficult to access. Many young men migrate to cities for livelihoods; and families left behind find it even more difficult to access healthcare.

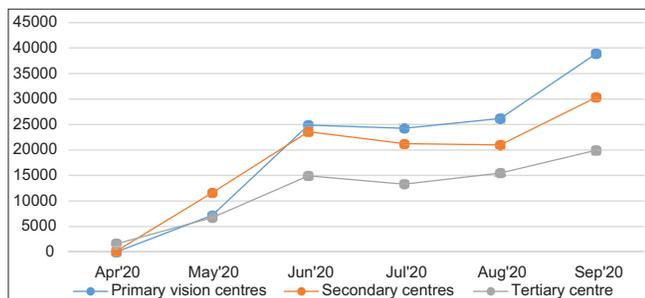
AMRIT Clinics, located within the communities, provide a low cost and accessible option. A team of qualified primary care nurses, most of whom are tribals themselves, are skilled and entrusted to provide primary care in these clinics. A visiting physician supplements the clinical care. In addition, health workers, belonging to these communities, educate and empower communities on issues relating to health and self-care.

With the lockdown, faced with restricted mobility and an abrupt loss of incomes, families could not access or afford to seek healthcare. Realizing the dependence of the populations for healthcare, AMRIT Clinics continued to provide full scope of services throughout this period, when most other health services were inaccessible, closed or had severely restricted provision of care. Through community health workers and health volunteers, the clinics also delivered drugs at households to patients with chronic diseases who could not visit the clinics due to distance and travel restrictions. Because of these measures, patient footfall at the clinics was even higher during the lockdown than the corresponding period in the previous year.<sup>[2]</sup>

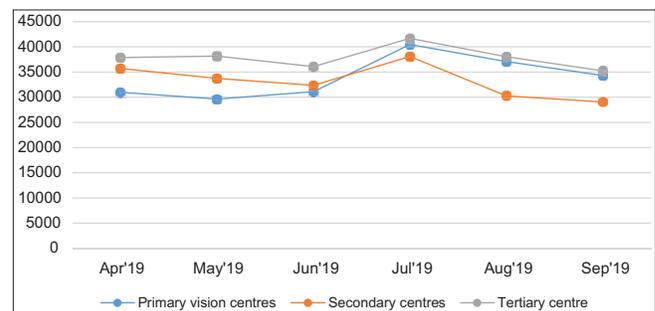
### Cancer Care across Centers of National Cancer Grid

The Tata Memorial Centre (TMC) is the largest cancer care institution in India, providing comprehensive cancer care. Though located in Mumbai, over 60% of the patients hail from different parts of the country. About 60% of patients are treated free of cost or at highly subsidized rates. TMC also convenes the National Cancer Grid (NCG), a network of cancer hospitals located in different large and small cities of India.

The COVID-19 pandemic and subsequent lockdown significantly affected cancer care across the country. Many patients were not able to reach the hospitals, and many cancer hospitals reduced provision of care. Realizing the cost of interruption of care, TMC decided to provide uninterrupted care, while instituting a



**Figure 1:** Patients provided out-patient consultations across levels of care at LVPEI (Apr-Sep'20)



**Figure 2:** Patients provided out-patient consultations across levels of care at LVPEI (Apr-Sep'19)

series of measures to increase access as well as reducing the risk of COVID transmission<sup>[3]</sup>

TMC widely shared the SOPs and protocols across member hospitals of NCG, guiding them to provide uninterrupted, standardized quality care. While these efforts helped TMC in bouncing back from an initial slump, a comparative analysis between March–May 2019 and March–May 2020 showed that the NCG-affiliated cancer centers saw about 50% reductions in footfall and surgeries; and one-third reduction in chemotherapy and admissions<sup>[4]</sup>

The decline was least among patients coming from within Mumbai, where hospital was located, and most among those coming from far. Similarly, the decline in the number of outpatients and inpatients, as well as surgeries was maximum for centers in Tier 1 (metropolitan cities) as compared to Tier 2 (large cities). Cancer care centers located in Tier 3 cities showed least reduction in utilization of care.<sup>[4]</sup>

### Call for decentralized, distributed healthcare

Indian healthcare system is becoming increasingly centralized and hospital-centric. Such a system is unaffordable and inaccessible for those on the margins in normal times, and for everyone in a crisis like the current pandemic. The experiences presented in this paper demonstrate the value of a decentralized health system, that is closer to people. Based on these experiences, we argue that such a system would have the following characteristics to provide effective and equitable care:

**Distributed network of clinics and hospitals:** Since such a network would mean some health facility closer by, most people would find it easy to access and would cause minimum disruption when seeking care. They are also less likely to be affected by a crisis or an epidemic. Smaller cancer hospitals in small cities were more likely to provide uninterrupted care than large hospitals in large cities. Being part of the network enables quick access to knowledge, skills and support for managing a crisis such as COVID pandemic.

**Task shifting and task sharing:** The lockdown demonstrated a critical need for teams across the healthcare spectrum to be prepared and encouraged towards task reorganization. The experience drives lessons for a decentralized system in which tasks redistribution and shifting of roles from sub-specialists to specialists, specialists to generalists and from generalists to non-physicians are critical. It requires investments in equipping, skilling and supporting cadres of health workers and professionals to perform the entrusted tasks. Nurses in AMRIT Clinics and Vision Technicians in LVPEI help bring care closer to the communities.

**Application of technology:** In such a distributed network, use of technology is essential to ensure coordinated care and maintain the quality of care. Tele-ophthalmology, for example, enables delivery of high-quality care even in distant vision centers, and in ensuring continued care.

**Community connects:** Health facilities that have their mission of serving their neighborhoods are more likely to be connected to the communities. Large hospitals, even when they are accountable to the patients they serve, are likely to be blind to their neighborhoods.

Each of the node of the network of small clinics and hospitals would build a strong connect with the communities and provide care that is responsive to their needs. Such a connect would also make the service much more resilient in times of crises.

## Conclusion

Over the years, healthcare system in India has been largely centralized, expensive and impersonal. In a country where expenditure on healthcare is low, most healthcare expenditure is out-of-pocket and where most of the population continue to live in rural areas or in urban fringes, such a care is inaccessible, unresponsive and unaffordable. COVID pandemic exposed these realities further. It has also made it urgent to redesign the system that is more decentralized, distributed and responsive. The examples provided above demonstrate that this is possible and sustainable through ways that work.

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### What is already known about this subject?

Health systems in India are centralized, fragmented and impersonal. COVID-19 disrupted the health systems further

### What are the new findings?

Decentralized and distributed health services are more likely to be effective, resilient and sustainable in times of crisis such as the current pandemic.

### What are the recommendations for policy and practice?

Health systems in India need to be urgently decentralised, distributed and made more responsive, to manage the current pandemic and beyond.

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### Conflicts of interest

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