Maintaining Continuity of Healthcare in Rural and Urban Settings During Covid-19

By

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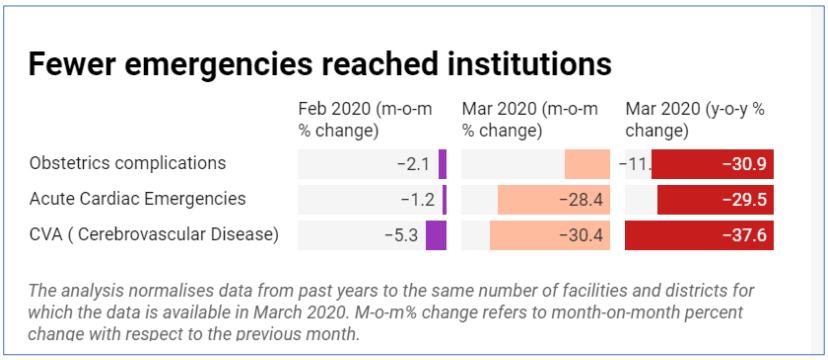
Introduction

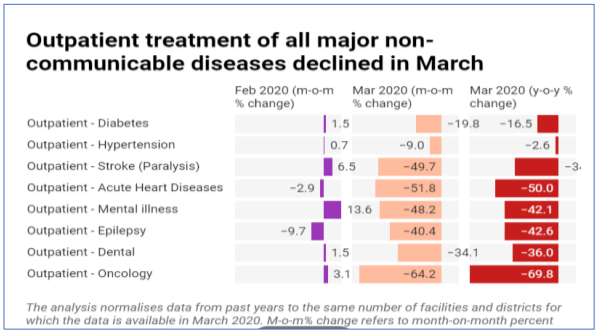
An estimated 2 million people would have died in India since the first COVID-19 case was detected. The COVID-19 pandemic is straining the country's already stretched healthcare system as most activities undertaken in the country in general and in healthcare in particular are related to controlling the pandemic. While nobody can and should underestimate what the pandemic is doing to us, it is important to understand that going the other extreme and focussing all our energies only on the pandemic to the exclusion of every other form of healthcare delivery is a big mistake.

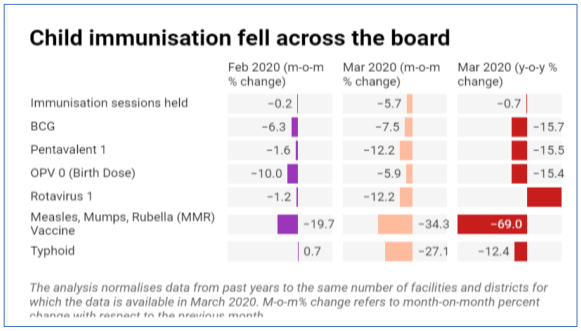
The continuity of healthcare services, be it in the rural/urban belts or at the primary/secondary/tertiary levels, is getting affected. Evidence shows a decrease in access and utilization of healthcare services. This suggests that a large population is at risk for contracting and dying of diseases other than COVID-19. For every life that we save as part of a very concerted COVID-19 response, we are likely to see 1X deaths due to other causes.

What then are the Non-COVID-19 impacts of the COVID-19 pandemic on healthcare delivery in India?

NHM data for March 2020 indicates that reduced hospitalization numbers could mask a lack of access to healthcare, rather than a lack of illness. It shows a 10% decrease in institutional births in govt facilities across the board. 30% fewer obstetric complications reached hospitals. Medical treatment fell for all diseases, both infectious and NCDs. At least, 100,000 children did not receive their BCG vaccination during the March-April 2020 period. This vaccination can provide some protection against tuberculosis (TB). Another 200,000 children missed each dose of the pentavalent vaccine. Nearly 100,000 fewer people received outpatient cancer treatment in March 2020 as compared to March 2019.







(Source -https://www.livemint.com/news/india/how-covid-19-response-disrupted-health-services-in-rural-india-11587713155817.html)

These are worrying signs of a much larger problem that is brewing. Essential health services must be focused on preventing morbidity and mortality from other conditions.

Quoting Mr. Yogesh Jain, founder member of Jan Swasthya Sahyog, a non-profit public health initiative in Chhattisgarh, “You don’t want a situation where you save 300,000 deaths from COVID-19 and then 1.2 million people die of other causes."

In a situation of total lockdown and where the safety of health workers is also compromised, many hospitals have been facing anxiety-ridden moments. They have been forced to scale down regular operations, shut down their Out-patient Departments (OPDs) as well as their diagnostics facilities and instead operate on a bare bone structure with all facilities being directed towards COVID-19 detection and treatment.

In the following, we will discuss the challenges faced by patients and doctors, and the solutions implemented by three healthcare exemplars from different contexts, to ensure minimal disruption of medical care services. The exemplars presented in the following focused on providing continuity of care respectively for Cancer treatment, Woman & New born care in a tertiary environment, and Primary Healthcare services.

Cancer Care

At India’s top cancer care hospital – Tata Memorial Hospital (TMH), Mumbai

Tata Memorial Hospital is a central government-aided, autonomous, specialist cancer treatment and research centre in India. Like every other hospital, they too had to scale back their operations due to COVID-19 by one third. They made an important decision, early on in the cycle of the pandemic, on maintaining cancer care services, despite pressures from multiple sources to focus all energies on COVID-19, to the exclusion of everything else. They were accused of being too narrow-minded in their focus of wanting to treat only cancer in the face of a raging pandemic. While they as primary doctors took the responsibility of treating COVID-19 patients, they also felt that they would be grossly shirking their responsibilities if they did not address cancer care. The impact of delay and denial of treatment in cancer can be devastating, that could result in increase in mortality and morbidity of cancer patients.

Challenges faced by TMH

1. **Fear of the pandemic in people:** Because of the contagiousness of the virus being high, there was widespread fear amongst patients, their care givers and employees. It was observed that the fear among patients was far less pronounced. These were patients who were diagnosed with cancer, and as such, the fear of contracting COVID-19 was not big enough for them to deprioritize their cancer care. Hence the patients wanted to continue with their cancer care.
2. **Transport facility:** Patients, their family members and staff were unable to visit the hospital due to transport facilities not being available as a consequence of travel restrictions. Patients who came from out of Mumbai were stuck and could not go back to their homes; they had no place to stay in Mumbai for extended periods during the lockdown. For TMH administrators, this became a serious social and medical problem.
3. **Creating behavioural change** - Educating patients and employees on hand hygiene routine, social distancing norms and avoiding prolonged contact between patients and family members was a continuous challenge that had to be addressed.

Solutions to mitigate the challenges

1. **Administration**
   The hospital administration responded with a war room concept by establishing a core action group within the hospital. This group was tasked with pre-empting problems, quickly responding to situations and making timely decisions, which had to be made based on a lot of assumptions.
2. **Communication**
   - The management realised that transparent communication with the staff is the single most important thing that makes or breaks an organization during times of crisis. Given the panic surrounding COVID-19, it was ensured that there was no delay between an event that had occurred in the hospital and the staff being informed about the same.
   - Daily debriefs and action plans were communicated to all concerned employees.
   - Weekly Zoom calls and WhatsApp groups ensured frictionless and immediate exchange of information.
3. **Hospital preparedness**
   - A “Fever OPD” (that was alien to the culture of a cancer hospital) was established.
   - An isolation ward was created and its capacity was subsequently doubled.
   - Infection preparedness solutions were rapidly scaled up and new standard operating procedures for cases of suspected or confirmed COVID-19 infection were put in place.
   - Inhouse testing with the help of departments was undertaken. Many of these departments had hitherto never worked together, as this was not required earlier. A laboratory was set-up in a record time of two days, which was manned by a pool of scientists who were capable of doing the Ribonucleic Acid (RNA) extraction and

running the diagnostic essay for the Reverse Transcription – Polymerase Chain Reaction (RT-PCR), one of the most accurate laboratory methods for tracking, detecting and tracking the coronavirus. Within three days, TMH obtained approval from Indian Council of Medical Research (ICMR) to run the tests. With this set up, they were able to handle double the patient load than what ICMR had recommended. They found this as a quick tool to decide if a person was COVID-19 positive or not.

4. **Prioritizing cancer care**
   - TMH came up with a protocol for prioritizing certain cancer treatments over others. For instance, this entailed giving priority to patients with diseases such as lymphoma, leukaemia, early stage cancers, etc., that had better chance of recovery, over others such as palliative chemotherapy, palliative radiotherapy and palliative surgery, that were expected to have only marginal benefits. To the extent possible, the latter category of care was being deferred due to capacity constraints as a consequence of part of the capacity being diverted for addressing the COVID-19 situation.
   - It was decided to avoid and defer complex surgeries that were likely to require multiple blood transfusions and prolonged stays in the intensive care unit.
5. **Patient-directed activities**
   - Patient-directed activities were undertaken to minimize their risk. There was a potential overlap in the symptoms of patients on cancer treatment and those of COVID-19. For example, patients undergoing radiation therapy very often contracted sore throat. Patients undergoing chemotherapy had fever and infections. Consequently, these patients had to be screened and the staff attending to them had to be kept safe. Screening camps were established outside the hospital building, to minimise the chances of a potentially COVID-19 positive patient entering the hospital.
   - Restrictions were placed on the number of relatives and friends accompanying a patient in outpatient clinics and inpatient wards.
   - Tele consults were used as a follow-up mechanism with patients to avoid physical visits to the hospital. Details of these patients were quickly retrieved from electronic medical records (EMR) to enable smooth follow-ups.
6. **Employee-directed activities**
   - To protect the work force, vulnerable staff was identified (elderly people, pregnant women, those on immunosuppressants after transplant, those who had uncontrolled diabetes/hypertension as well as those with multiple co-morbidities). Provision for fully paid leave was made for them from the time the pandemic broke in India.
   - Provision of hospital buses for staff and patients to ferry them to the hospital from their homes and back every day. This entailed deploying twenty-two buses, each making over three trips every day.

- Rotation of staff was done to ensure backup in case of a mass quarantine.
- Emphasis on employees to adhere to basic principles of physical distancing, hygiene and use of masks.

With a combination of the above proactive and multipronged measures, TMH has been able to maintain close to normal services. They are currently catering to about 55-65% of normal case load for cancer patients. On an average day before the COVID-19 lockdown, about 3000 patients visited the hospital daily, which has dropped to 1600 patients daily for various types of cancer-related treatment, such as surgery, radiation, etc. TMH has also been quick to share their learnings related to best practices and guidelines for cancer treatment during the pandemic with other hospitals in India by creating a series of webinars. These have been made available through the National Cancer Grid, which is a network of cancer centres crafted by TMH.

Mother and New Born Care

At Telangana's best maternity hospital - Fernandez Hospital Foundation (FHF), Hyderabad

Fernandez Hospitals (FH), part of Fernandez Foundation, is a chain of speciality hospitals for women and new-borns in Hyderabad. It has been providing efficient, reliable and personalized health care for over sixty years. Mother and new-born care are an essential health service. On an average day pre-COVID-19, between the five Fernandez Hospitals spread across the city, about 800 to 900 mothers walk in to avail birthing services, which dropped to about 750 births per day during the COVID-19 lockdown.

Challenges faced by FH

1. **Fear amongst people:** New mothers-to-be were anxious about their unborn babies. There was fear among employees of contracting the virus and resulting implications on their families.
2. **Drop in revenue:** Since OPD services, testing services and many other non-emergency departments had to be temporarily shut down, and patients were unable to come to the hospital owing to the lockdown, the hospitals revenue took a major hit in the months since March'20.
3. **Non-availability of transportation:** The hospital had an 1800 member staff. A majority of them were in the lower cadres such as housekeeping and security. They could not come to work due to the non-availability of public transportation.
4. **Food supply:** Providing food to the staff who were on premises, as well as to the patients became a challenge due to the lockdown, as food supplies were temporarily hit.
5. **Housing for nurses:** The Foundation had recently invested in 3 towers of an apartment block to house all their 500 nurses. They were faced with the realisation that should even one nurse get infected; the whole block would have to be quarantined. This

meant that almost 400-500 nurses would not be available, with potential to paralyse operations of FH.

Solutions to mitigate the challenges

1. **Creation of core groups**
   Core groups within the hospitals were created to set up the process for emergency screening, sourcing, donning of protective gear, and training for using of Personal Protective Equipment (PPE). These groups were vested with the responsibility to take many day-to-day decisions.
2. **Setting up helplines**
   The first week of the lockdown was dedicated to setting up help lines and calling mothers-to-be, talking to them, and calming them down, while addressing many of their questions. Using electronic medical records (EMR), the staff was able to reach out to mothers who were due for their appointments, go through their cases and consult with them.
3. **Transportation arrangements**
   Daily shuttle services had to be set up to make multiple trips to pick and drop the minimum number of staff required at the hospital to ensure that operations did not get affected.
4. **Setting up protocols**
   Within the first week of the lockdown, a definite process was set up to screen every patient and visitor entering the hospital. A clear defined pathway had to be created with an isolation room if the woman was screen positive. Protocols for labour and birth had to be reviewed as data and guidelines were evolving virtually on a daily basis. Existing protocols had to be tweaked and changed to accommodate the new reality.
5. **Prioritizing patients needing care**
   One of the most difficult decisions was to prioritize patients needing care. Many cases/surgeries were postponed. Typically, during the pre-Covid-19 era, the referral cases that came from outside the city constituted about 10% of the cases on a typical day. These were complex cases that were referred to FF, since it had the reputation of handling high-risk cases. These mothers felt a tremendous sense of abandonment as they could not cross into the city. The hospital tried its best to connect them with doctors in the districts to see if they would offer care to these mothers. However, the fact that care which needed a multidisciplinary team could not be accessed was a reality these mothers and their families had to grapple with.
6. **Telehealth services**
   Paid telehealth services had to be set up quickly as the revenues had dropped tremendously. Before the COVID-19 crisis, the obstetricians at FH collectively saw about 1200 women over a typical weekend. These numbers were now virtually down to single digits. There was a lot of anxiety particularly among mothers who had lost babies before, mothers with diabetes, hypertension and those who had in the past delivered still born babies. These cases constitute the “high-risk” segment. Doctors

had to go back to monitoring mothers virtually, by asking them simple questions such as, “Is your baby moving?”, “Do you have a glucometer at home to monitor your blood sugar levels?”, “Can you take your blood pressure (BP) at home and report back the readings?”, etc. A combination of such innovative methods was deployed to provide care for the mothers-to-be. Over six thousand calls were made during the first week of the lock-down using this telehealth innovation.

7. **Nurses Housing**

   Since all the nurses were hitherto housed in three towers a decision was made to break them into small clusters and house them in different places so that the chances of people being quarantined in large groups could be reduced. Some of the obstetric facilities of FH that were temporarily shut down, were used to house the nurses.

8. **Psychologist Services**

   To address the anxiety and fear among various stakeholders that included mothers-to-be who could not come in to the hospitals due to the lockdown, mothers who were worried that no vaccination was available for the babies, staff who suffered anxiety due to fear of job loss, or fear of catching the infection, the hospital set up psychologist counselling services. This proved to be very helpful to allay fears.

9. **Salaries**

   A decision was made to not reduce the salaries of employees below a certain level, to enable them to maintain their livelihoods. Many staff volunteered to take pay cuts since they realised that FH was going through a crisis period. The pandemic brought about tremendous levels of loyalty and support and acted as a binding force.

10. **Restarting of OPD services**

    For a period of three weeks, the OPD services were suspended at all the FH facilities, except for handling emergencies. Thereafter, the services were restored, taking due precautions of social distancing measures. The daily footfalls of mothers-to-be in the OPD was down to thirty compared to sixty before the COVID-19 crisis. Scanning facilities were also opened up for the expecting mothers.


For the next six months, financial sustainability for the organization would be topmost on the minds of FH's leadership. Hence, severe austerity measures have been put in place. Since the mandate of the FH, stemming from its structure of being a Foundation, is not to maximise profits, raising the price of services and the cost to the patient is not a feasible option. Despite these challenges, ensuring continuity of care for patients, while taking the necessary precautions for the healthcare workers will continue to be top on the minds of FH leaders in the months ahead.

Primary Healthcare

A start up not for profit organization, providing low cost, medical services in rural Rajasthan: Basic Healthcare Services (BHS), Udaipur

BHS is driven by the vision of a responsive and effective healthcare ecosystem that is rooted in the community, where the most vulnerable communities can actively access low-cost health services of reasonable quality with dignity. BHS runs six clinics in one of the very impoverished regions of the country in the tribal belt of southern Rajasthan. The region it serves is about 100 km from the major city of Udaipur. Each BHS clinic services a population of 12,000 people. These areas even under normal circumstances have limited access to healthcare. Majority of the population in this belt is composed of families where the adult male members live as migrant labour in far-flung cities of the country. They are the breadwinners of these families. Due to the lockdown, most of these men had been stuck in big cities, unable to return home. Nutrition is a huge problem for these families. Food availability had decreased considerably since the lockdown. Lack of proper nutrition greatly increases the chances of infection. This is compounded by lack of easy access to secondary and tertiary care facilities, especially during a lockdown situation.

Challenges faced by BHS

- **Fear amongst people:** Access to care had dropped over the last couple of months due to the fear of breaking the lockdown, fear of the police and fear of contracting the infection due to myths surrounding COVID-19. Migrant workers have been facing the brunt since their return. They face discrimination: the community believed that they are careers of COVID-19 and would transmit it to the whole community.

- **Lack of transportation facilities:** People in these remote areas generally walked to the clinics, which are far away. They also borrowed or rented out two wheelers of their marginally wealthy neighbours to reach the clinics. But due to the impact of the lockdown, this had stopped, posing a major challenge of accessing the clinics. Moreover, the nearest referral hospital, located in Udaipur, was 100 kms away. Even If the BHS clinic diagnosed the problem, absence of any mode of transportation to the referral hospital made it impossible to access such advanced care.
- **Rise in domestic violence:** Since some of the migrants managed to return home and were staying without work at their modest homes for long duration, cases of domestic violence were on the rise.
- **Lack of access to medicines:** Lot of people who were consulting elsewhere started coming to the BHS clinics for medicines, as there was overall problem of accessing medicines. Patients with acute diabetes, those with HIV infection and others with Tuberculosis could not get the medicines they needed. Many of them faced severe deterioration in their health conditions; some of them even died due to non-availability of required medicines. In normal times, these people would have gone to their regular healthcare providers at higher levels of the healthcare pyramid and get the requisite medicines.
- **Closing down of immunization services:** Due to the directive issued by the Government of India, immunization services had to be temporarily shut down, which caused a lot of anxiety among mothers.

Even in the best of times, the issue of myriad myths and fears, as well as the problem of access to proper healthcare infrastructure make it difficult for organisations such as BHS to work in their chosen geographies. COVID-19 exacerbated these challenges manifold. While the simplest solution for BHS would have been discontinue its services during this crisis period, it was decided that it was an ethical imperative to continue providing medical services in these areas. In addition, it also sought to address the nutritional needs of the population it served. It reasoned that the societal cost of reducing its services would result in long-term devastating consequences on healthcare outcomes, with consequent adverse impact on human lives. At the same, time well-being of the staff had to be considered and protection for them had to be ensured.

Solutions to mitigate the challenges

1. **Setting up of evidence-based protocols**
   - BHS examined evidence relating to COVID-19 from all over the world, to understand possible implications.
   - It tried to understand the solutions that could work in primary healthcare settings and implemented those.
   - Protocols around Personal Protective Practices (PPP) were set up.
   - Systems were set up to track and collect data in the clinics as well as in the community. These included data on migrants, how many people came back from

each of the cities, how many were showing symptoms of COVID-19, were they likely to transmit the disease, etc. The data was analysed and communicated to allay fears in the community. This analysis also enabled BHS to implement even more rigorous evidence-based interventions.

2. **Transparent communication**
   - There was regular and prompt communication of new information to the staff as it emerged, which enhanced credibility and trustworthiness of the BHS leadership.
   - BHS believed in being transparent. They were honest in readily admitting when they did not know something, since things were changing very rapidly.
   - Regular communication with staff in remote clinics through Zoom enabled effective two-way sharing of information: from the field staff to BHS leadership on ground realities, and from BHS leadership to the field staff of actions that they needed take.
3. **Ensuring transportation for staff**
   Clinic ambulances were used to ferry nurses from their homes to the clinic and back. An ambulance protocol was set up to handle crises that may arise from time-to-time on the ground.
4. **Establishing clinic protocols to be followed during the COVID-19 crisis**
   - The outpatient department was shifted outside the clinic, in the open, to minimise the chances of infection.
   - Patient touch points were minimized.
   - Entry of attendants of patients was restricted.
5. **Leveraging outreach health workers**
   By looking at the electronic medical records (EMR) of patients, people with chronic and non-chronic diseases were prioritized, and with the help of outreach workers, essential drugs were delivered to their homes. Priority was given to patients in the catchment areas of BHS.
6. **Re-commencing immunization programs**
   A decision was taken to restart and schedule immunization programs. Patients were brought to the clinic and immunised. This activity was phased out to avoid overcrowding.
7. **Reaching out through voluntary groups in villages**
   People in the villages are not very savvy in connecting to helplines. Hence BHS reached out over the mobile network and through voluntary groups in the villages to counsel the villagers. The purpose of reaching out in this manner was to create awareness of the disease, while dispelling myths relating to it. The telephone counselling sessions were more interactive. BHS could reach out to large numbers of people through this process.

Primary healthcare has a deep connect with the communities it serves in. The BHS experience serves to illustrate the power of a distributed healthcare system, which served to ensure continuity of care, while serving to address the crises stemming out of the pandemic.

Conclusion

For TMH the biggest challenge was of scaling back services and to quickly respond to the everchanging dynamics of COVID-19 by prioritizing cancer care for patients. They also ensured that they tackled not just the behavioural aspect of the disease by constantly educating and communicating with people (both employees and patients) by defining protocols, but also access to their hospital through proactively arranging transportation for patients and staff to ensure continuity of care.

For FH the challenge was to calm the anxieties and fears of mothers to-be and new mothers regarding not just COVID-19 but also their own health, immunizations for the children, etc. They did this by setting up Helplines, Telehealth services and Psychologist services, and ensured regular follow-ups to ensure that these services reach those who most needed them.

For BHS, the biggest challenge was the fear in people regarding the pandemic and the varied myths surrounding it, accessibility to medicines, as well as immunization programs for the villagers and new-born children. They addressed these challenges by sending out groups of outreach healthcare workers. They undertook door-to-door visits in the targeted communities. They checked on the health of patients with both chronic and non-chronic diseases. They educated the villagers about COVID-19, separating myth from reality. They assuaged the anxieties of mothers by rescheduling immunization programs to ensure that the children are vaccinated within recommended timelines, while ensuring that social distancing was adhered to.

In the following, we present common themes that emerged in response to the challenges faced, as well as creative responses adopted by the three exemplars.

- Communication with an emphasis on transparency with teams and communities to allay fears and anxiety in patients and staff.
- Using evidence and protocols objectively and adapting them to the circumstance.
- Using telehealth to treat patients, wherever possible.
- Ensuring that the transportation infrastructure for patients and staff is provided to ensure continuity of care.
- Developing new protocols for screening, testing, treatment etc.
- Being agile to adapt with the new information from across the world that was continually streaming in.
- Building a core team to take responsibility to handle the day-to-day situations as they arise. This ensures commitment, team work and ownership of the outcomes. Decentralization of care to the extent possible so that patients do not have to travel long distances.
- Having the courage to move ahead, with the conviction that the right thing is being done.

The people of not just India but the world need to come to terms with the fact that this pandemic is not going anywhere in a hurry. They have to accept COVID-19 as the new normal for some time to come and only then will the healthcare providers be able to bring their focus back on restoring healthcare services, thus mitigating the risk of collapse of the system.

An excerpt from an article on WHO guidelines in times of crisis sums up the way forward for healthcare providers in these testing times: 'Well-organized and prepared health systems can continue to provide equitable access to essential service delivery throughout an emergency, limiting direct mortality and avoiding increased indirect mortality.'

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