HealthcareIn India –Opportunities& Challenges During COVID 19

Nitin Kumar Gautam(Ph.D Management)
(ResearchScholar)
Dr. Mini Amit Arrawatia
Professor, Management & Commerce JayotiVidyapeeth Women's University (Jaipur)

Abstract
India is the second most populated country in the world with the homeof more than 1.3 billion people. Being a developing country India is facing a uphill task in managing the COVID-19 pandemic. In India still there are 90 crore people which resides in rural areas which makes more than one third of our population with limited access to healthcare facilities. COVID-19 pandemic is taking a stroll on both the patients a) COVID positive patients requiring hospitalization b) Non-COVID patients requiring medical support which ultimately delaying their treatment and worsening the condition. This paper focuses upon the need for strengthening the current healthcare system along with opportunities which came across while meeting the challenges.

Keywords
Covid-19, healthcare management, healthcare access, lockdown,hospital,rural, patients, ethical challenges

Introduction

India being a fast paced economy has got hit badly with the pandemic. The unprecedented pandemic has upturned lives in ways no one could ever imagine and has seen disruptions in almost all aspects of society. For the past 12 months, India's war against coronavirus has witnessed multiple lockdowns and phased relaxations even as the total number of cases crossed the grim milestone of 1.5 crore. However, every challenge comes with a bundle of opportunities, so does the COVID-19. The new disease, despite leaving its devastating effect across the sectors—from lifestyle to education to economy, has opened a wide window of opportunities for the government to restructure and reform the Indian health industry which has been in a bad state of repair. The worldwide spread of the virus has raised numerous questions in the past 12 months, with the biggest being 'Are we prepared?'

Not only the COVID patients are now suffering but the Non- COVID patients are also facing many problems in continuing their treatment. There are various acute and chronic healthcare problems which are prevailing like diabetes, cancer, hypertension any heart related complication and requires urgent and timely interventions from a Healthcare Physician also there are many traumatic patients which require urgent surgeries like a

road accident or a myocardial infraction. The main problem which is arising now is that most of the hospitals now are dedicated towards the COVID treatment due to which the other Outpatient Departments are now closed with patients now getting suffered without the services of doctors be it a cancer patient who is undergoing a chemotherapy or a old patient requiring surgery for a hip or knee replacement who is unable to walk and waiting for his turn for surgery.

Indian government is trying to contain the virus by taking necessary measures be it a lockdown or increasing the awareness about the importance of wearing masks along with regular usage of sanitisers. Still there is a uphill task which has to be performed by government in slowing the spread of virus but despite of taking all precautionary measures the infection seems to overcome us with rising of cases on daily basis.
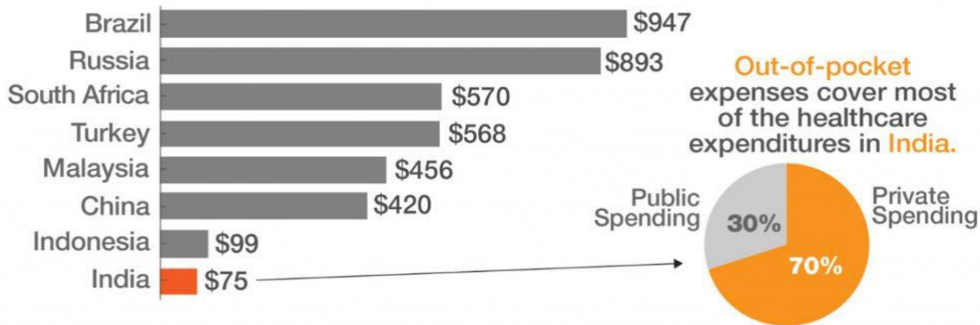
COVID-19 has made every country realize the need for a robust and agile healthcare system that can adapt to the changing situations in a time sensitive manner. The healthcare system needs to focus heavily on quality research and development which will form the building block for a new innovative healthcare system.

Increased Budget Allocations

India spends less than 1.5% of its GDP in the healthcare sector as compared to 18% on an average by developed nations. Lesser amount of budget by government means common people have to spend more from their pocket on their health. Due to the poor and under developed infrastructure with a heavy dependency on each hospital people tend to suffer more even in normal times and now the Covid-19 pandemic has opened the cracks in the system. With the paucity of the available resources it is becoming a nightmare to cope up with the daily testing's, increasing burden on hospitalisations and the adverse effect on even the non COVID services is breaking the back bone of the healthcare system. Government is now reviewing the budgetary allocations with regular announcements of relief packages for healthcare industry. Due to the high dependency on the limited government hospitals it is now becoming crucial to build more hospitals in a shorter time .Due to the limited support people have to heavily depend upon the private healthcare sector where they have to spend a huge amount on the treatment and to a low number of people are backed by insurance.

Health expenditure per person

Among the BRICS and other newly industrialised nations, India spends the least on health per capita.

Brazil	$947
Russia	$893
South Africa	$570
Turkey	$568
Malaysia	$456
China	$420
Indonesia	$99
India	$75

Out-of-pocket expenses cover most of the healthcare expenditures in India.

Public Spending 30%
Private Spending 70%

Healthcare spending by different countries | Source: World Health Organization

Country/Region	Out-of-pocket (OOPS) as % of Current Health Expenditure (CHE) in 2017
India	62%
European Union (excluding U.K.)*	22.29%
United Kingdom	16%
United States of America	11%

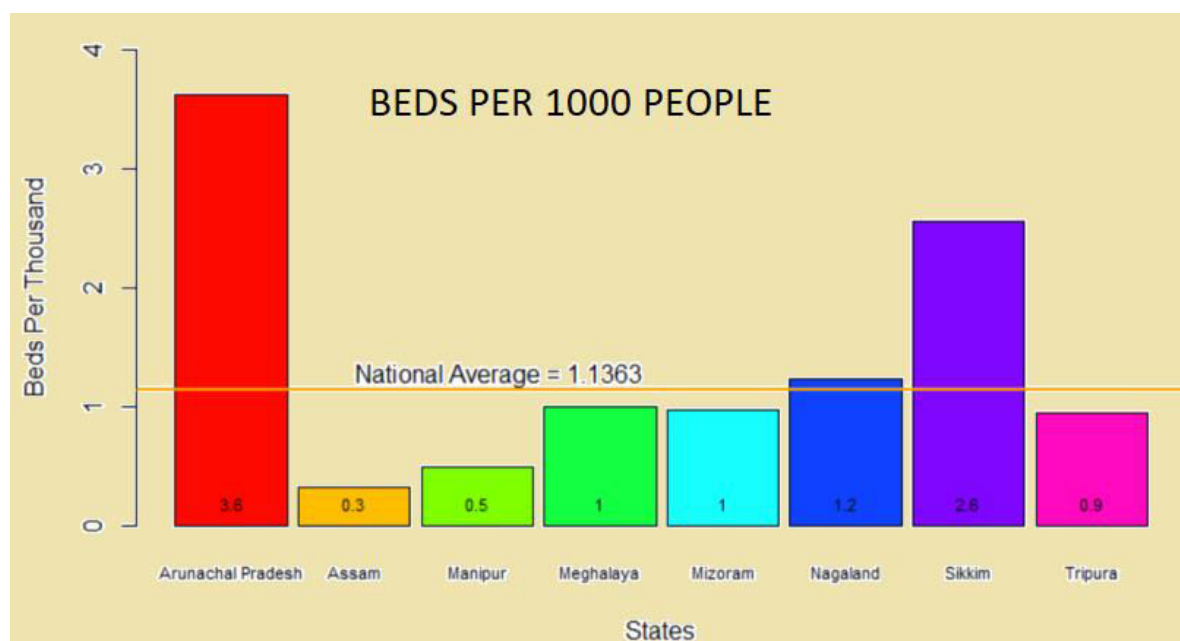*Source*: **WHO Global Health Expenditure Database**

Development Of Infrastructure

With the pandemic grappling the Indian healthcare system there is a big availability issue of basic infrastructure like hospital beds, ventilators,PPE kits ,N95 masks. As the problem is rising the need for all the basic necessities is also rising. The national average of beds per thousand people is about 1.13 beds and the most important thing to see is the availability in the four big states where half of the populations resides. None of the state touches the national average. Bihar being the worst affected in terms of the availability.Adding to the woes is that one in each of the 4 person is below poverty line in these states. There is urgent need to revamp the basic infrastructure in order to meet the current crises, all though government is trying hard to increase the production of PPE kits ,N95 masks and as of now the local production of ventilators is also started .Still there is a long way to go and better planning along with the execution is required.

However, the health ministry and the industry players rose to the occasion and within a year the country became self-reliant in the manufacture of medical devices, personal protective equipment (PPE) and ventilators. With over 600 companies in India now certified to manufacture PPEs that include coveralls, N-95 masks and gloves, the country produces 4.5 lakh PPE suits daily. With the support of the textiles ministry, several apparel manufacturing units have tweaked their production units to stitch PPEs. From being a net importer of PPE kits, India exported 23 lakh PPEs to the US, the UK, Senegal, Slovenia and the UAE in July.
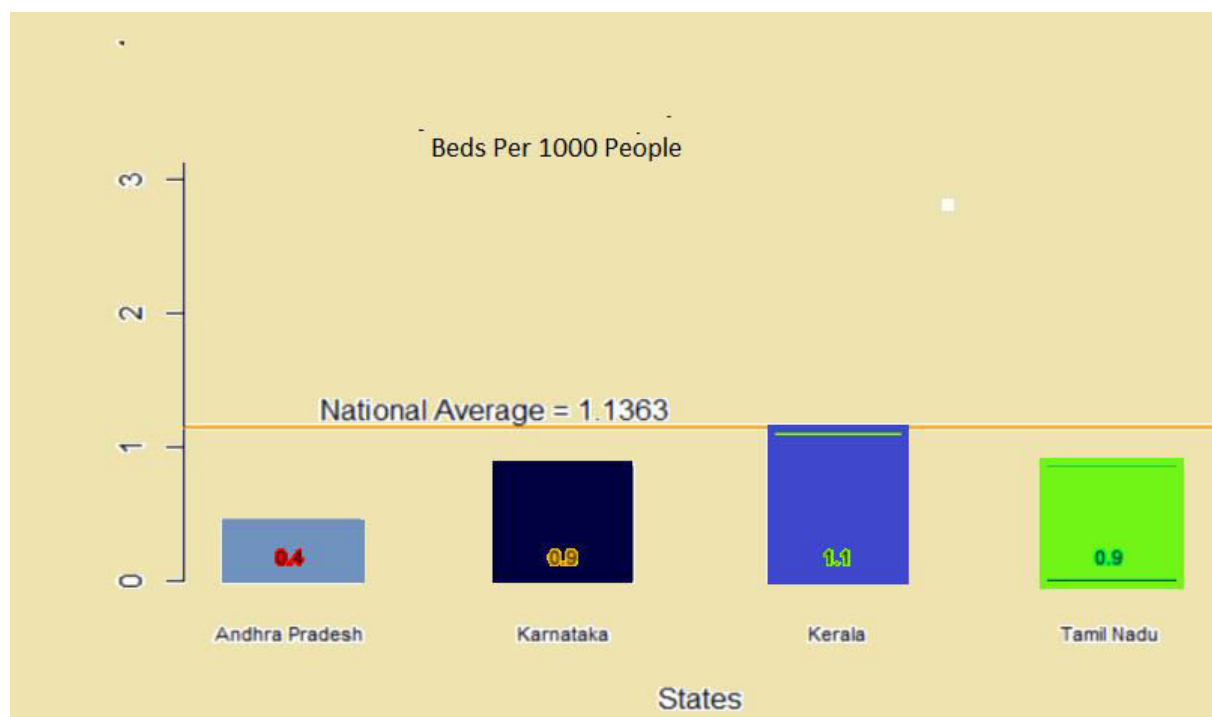
In the meantime, according to official data, the number of oxygen-supported beds has increased from 57,924 to 2,65,046 between April and October while the number of ICU beds and ventilator beds increased more than three times during the pandemic

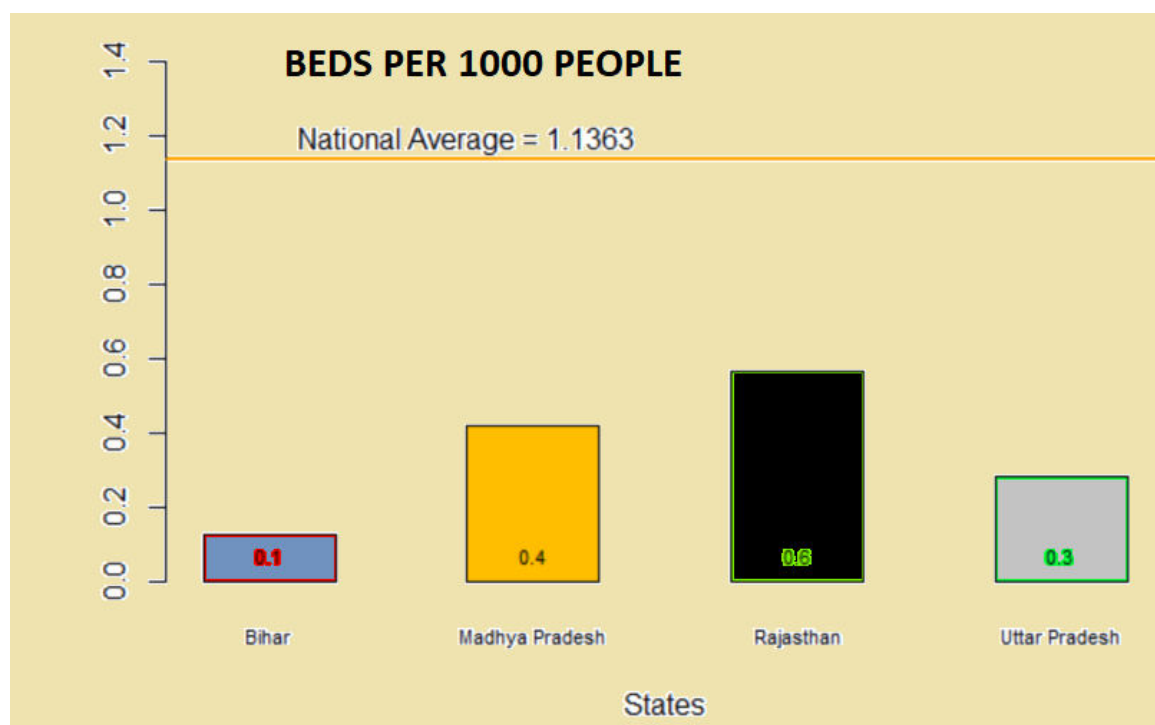**Beds available per thousand in the North-eastern States**

Source: Computation using Ministry of Health and Family Welfare and RBI"s population data

Beds Available Per Thousand In South Indian States

Source: Computation using Ministry of Health and Family Welfare and RBI"s population

*Source***:** Computation using Ministry of Health and Family Welfare and RBI"s population

The most affected six countries in the world are China ,Italy ,USA, Spain ,Germany, Iran have a better national average of the beds than India, so a speed up process is required to meet the rising demands of the beds in the country.

Country	Beds per 1000 population
China	4.2*
Italy	3.4*
USA	2.9**
Spain	3.0**
Germany	8.3**
Iran	1.5 ***

Source: World Bank. Data from World Health Organization

Socio Economic Factors

With a population of more than 1.3 billion and more than 270 million people still living below poverty line as per the worldbank data it is still a distant dream for many people to think about the quality healthcare services. The big quality corporate hospitals are mainly confined to the big cities. People with low income group tend to suffer more as they are heavily dependent on the government facilities. We can see that even developed countries like UK, USA, Australia, Italy are struggling to stop or slow down the transmission of the Covid-19 virus whereas India has done a reasonably fair job in slowing the spread by taking early measures of lockdown but lockdown has its own side effects as a large population of us is dependent on the daily wages. There are lack of schemes which can provide a regular and continuous support to the needy people .India's total workforce stood at **465.1 million in 2017-18**, as per the Azim Premji University's 2019 study based on the unit-level data that the Periodic Labour Force Survey (PLFS) of 2017-18 provided. According to the ILO statistics (based on Government of India data), the share of agriculture in India's total workforce was 43.9% in 2018. That would be 204 million. The rest are employed in non-agriculture sectors like industry and services. There are several schemes like Jan Dhanyojna&Mgnrega which are playing quiet crucial roles in providing support to the under privileged persons but in the contrary the expenses of the corporate hospitals to be afforded are a distant believe for many of them. The need of the hour is to improvise schemes like Ayushman Bharat Yojana which aims to provide free access to healthcare for 50 crore population.

Manpower Shortage

As per the recommendations from WHO their must be 1 doctors and 3 nurses for every 1000 people but India is facing a desperate shortage of doctors ,nurses ,paramedical staffs with a single doctor on 1400 person and with 1.7 nurses on each 1000 persons.The acute shortage of doctors is creating havoc among the healthcare persons also, with limited

manpower available there are longer shifts which a doctor has to do. There are number of major challenges a healthcare person has to face with regular burnouts, fatigue, mental stress and distracted behaviour in personal life led to lower efficacy of the personnel's. The main problem is lower availability in the medical colleges both in undergraduate courses and PG courses.

Also most of the healthcare facilities are confined to the urban areas and this disparity brings a rural area person difficulties in accessing the healthcare access. According to the reports from the WHO the density of doctors is 4 times more in urban areas in India than the rural areas, so a comprehensive approach is required so that more healthcare persons stay in rural areas. Uttar Pradesh in Dec 2020 passed an order which made 10 years of medical services mandatory for PG medical students in state health department. Even there was weightage which was given to the MBBS students serving in rural areas with 10 marks in NEET. Also in 2018 the UP government had introduced two years Compulsory Rural Service Bond in medical courses. The need of the hour is that public sector has to redesign appropriate packages of monetary and non-monetary incentives to encourage qualified health workers to work in rural and remote areas.

COVID-19 has given the government a great opportunity to address this issue even though brining qualified heath workers to remote, rural andleast developed areas. This shortage of frontline workers has poses a tremendous pressure on the existing healthcare workers.

Increase in Cost of Healthcare Commodities
Due to the impact of lock downs in various countries the dependency of India on many countries for raw materials and has got badly hit. According to the reports the Indian healthcare market is approximately 45,000 crores excluding the pharma market and still growing substantially. The thing to notice is that still we are heavily dependent on the imports and in accordance to the reports it is believed that 80% of the healthcare equipment's are imported. Be it X-ray sheets, Glucometers, Heavy machines for diagnosis like MRI machine, CTscan machines, Ventilators, Oxygen concentrators etc we still have to be still dependent on other countries like China and US.

With many of the countries shutting their transportation with many other countries due to the rise in COVID-19 infections, the limited resources available have adverse effects on the pricing and even led to black marketing of many items. This has led to many of the essential healthcare items scarcity which ultimately effects their reach to the common people.

Also with rise in cases the consumables like N95 masks,PPE kits and other diagnostic kits are getting utilised at very fast pace and with very heavy dependency on the imports India cannot meet the demands at their own so a better public private partnership is required at this point of time which can can really help the common men to have access of better healthcare facilities at even a remote and rural place.

The government requires to draft a holistic approach towards the betterment of the healthcare industry and implement a separate Department of Medical Devices, like the way

Department of Pharmaceuticals. Today it is already more than 40,000 crores industry and it is only going to grow up substantially. Even at 45,000 crores industry we are one tenth of Chinese medical device industry. So if we have similar population like China this industry has the potential to grow 5 to 10 times over the 10 years time frame. So for that it needs immediate attention and decreased immediate dependency on imports.

Role and Regulation of Private Sector

Private sector plays an important & pivotal role in these crises times and is trying their best to support the healthcare system. With the expansion of their importance today there is a need of a regulation on various aspects like the imports they do, the prices at which they offer the things to the general people etc. The private health sector consists of, on the one hand, private general practitioners and consultants of different systems (allopathy, Indian system and homeopathy) and a variety of non-qualified practitioners and on the other hand hospitals, nursing homes, maternity homes, special hospital etc. In the hospitals, nursing homes, maternity homes etc, the private sectors share is an over half of all such facilities in the country. Besides this there is the pharmaceutical and medical equipment manufacturing industry, which is overwhelmingly private and pre-dominantly multi-national. There are also laboratories, which carry tests right from blood testing to PET scans. The share of the private health sector is between4% to 5% of the gross domestic product (GDP). This share at today's prices works out to between Rs.16, 000 Crores and Rs.20, 000 Crores per year.

There are number of instances we can observe that several imports have been made of the essential commodities like oxygen concentrators ,N95 masks ,PPE kits ,Ventilators etc. where the prices are hiked by several times and much more profits were made before they were reached to the end users . There is an utmost need to regulate the prices so that the aim for universal healthcare coverage and the common people in rural & remote areas get the best of medical facilities.

Lower State Of Awareness amongthe Rural & Remote Areas

One of the major problem which the government is facing is to raise awareness about the hand hygiene and the concept of social distancing. According to the various surveys if the practice of hand hygiene is followed along with social distancing than a number of COVID -19 infections can be averted & most of the people can be saved from the major complications of hospitalisation and death. Print and social media can play an important role and if proper measures can be taken than these serious events can be avoided. For an instance the availability of water and other hygienic products like soaps and sanitisers are quiet limited. In villages the limited access to water leds to the women's often walking away to a common source of water which led to the poor social distancing and the chances of getting infection gets high. Unlike the urban areas the people of rural areas are less educated and due to which they often gets to ignore the initial symptoms of the COVID-19

which further led to the complications and many of them also have tendency to ignore the warnings which are provided by the government. There is a great need to strengthen the healthcare system at Primary Healthcare Centre and Community Health Centre (CHC).

Adoption of Newer Technologies

COVID-19 has ignited a new spark of innovation in the healthcare industry. This spark can certainly light up new dimensions in the healthcare arena by making use of advanced technologies and inventions.

The use of Artificial Intelligence, Robotics, and the application of virtual healthcare will become more evident in the healthcare sector during the post-pandemic period. This paradigm shift in the healthcare industry could make the system safer, affordable, and accessible to a certain extent. The pandemic has prompted tech start-ups across the globe to explore leading-edge innovations to assist the administrations and healthcare workers to tackle the virus spread. Digital health technology can facilitate pandemic strategy and response in ways that are difficult to achieve manually, says a *Lancet* article. It points out that several countries have integrated digital technology into government-coordinated containment and mitigation processes—including surveillance, testing, contact tracing, and strict quarantine—which could be associated with the early flattening of their incidence curves. According to the article, Big Data and Artificial Intelligence (AI) have helped facilitate COVID-19 preparedness and the tracking of people, and so the spread of infection, in several countries. AI can facilitate rapid diagnosis and risk prediction of COVID-19.

"In the race to contain the spread of a highly transmissible virus, countries that have quickly deployed digital technologies to facilitate planning, surveillance, testing, contact tracing, quarantine, and clinical management have remained front-runners in managing disease burden, "the Lancet says. India should take a cue from these integrated digital technologies while preparing for COVID-like challenges in future. All tough India has developed indigenous applications like ArogyaSetu, COWIN which are used by around 180 million people in India and helped a lot in avoiding the infections but still there is a great need of adoptingthe newer technologies as fast as possible.

Improving Health ofthe Healthcare Workers

"The COVID-19 pandemic has reminded all of us of the vital role health workers play to relieve suffering and save lives," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. "No country, hospital or clinic can keep its patients safe unless it keeps its health workers safe. WHO has urged every country to take care of their healthcare workers as these healthcare workers are the front line persons who are leading the fight against COVID -19.WHO's Health Worker Safety Charter is a major step towards safe guarding the interest of the healthcare workers and it must be applied in all countries specially in India. This charter makes every worker to have safe & sound working conditions along with the training, respect & pay they deserve.There are number of brutal attacks which have been

observed in the recent past during the pandemic on the healthcare workers.Strict measures must be taken by the government agencies to provide the assurance of safety to all front line workers. Time to time proper trainings and rest must be provided to all the healthcare people who are involved into combating the pandemic.

Conclusion

This pandemic has exposed the fundamental problems plaguing the Indian healthcare system, be it physical infrastructure, manpower, health management. We don't have an epidemic response mechanism and our public healthcare system is woefully underprepared. So yes, we need a reboot. The Pandemic has also exposed the inadequacy of private healthcare and importance of spending and strengthening public healthcare. In the longterm; the government will have to re-evaluate and drastically improve upon the funding in public healthcare, infrastructure. The manpower crisis plaguing the healthcare sector has to be managed with efficient and targeted vocational training. Instead of disease management , health management and prevention will become the norm, as the general well-being of the insured population through medication management and self-care enablement will gain importance. The Government must spend more in healthcare to create a more robust and all-encompassing public healthcare system. The country needs more public hospitals and the focus needs to shift from disease management to health management, patient education and prevention.

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