Review Article:

Efforts and Challenges paved by India to confront of Corona Virus (COVID-19)

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Abstract:

The clinical range of Covid-19 is a respiratory route infection that varies from Asymptomatic to various clinical conditions such as respiratory failure to multiple organ dysfunction syndromes (MODS). Government administration officials are ramping up many efforts i.e prevention and containing the spread from escalating to the next level, raising the quarantine stations and increase in the laboratory capacity, strengthening surveillance, contact tracing using artificial intelligence (AI) via technology apps. India is Consequently facing many challenges to tackle the pandemic from shortage of medical supply to the devastation of the educational, transportation, job sectors, and healthcare sector, However, pharmaceutical companies taking center stage in the Covid-19 fight, Other pharmaceutical companies(low scale) in India are following suit during the Covid-19 pandemic and using their capabilities to lighten the burden of coronavirus, WHO recommends social distancing and country-wise lockdown are very essential to tackle the coronavirus, the GOI is scheming on how to get back to normalcy, with an actionable exit plan for the states to confront the coronavirus

Keywords: Government of India,World Health Organization, Lockdown, Corona, Challenges

Introduction

COVID-19 is a respiratory tract disease brought about by a recently eminent coronavirus, SARS-CoV-2. It was first perceived in Wuhan, China, in December 2019. SARS-CoV-2 is a beta-n coronavirus connected near the SARS infection, which has been suggested by its genetic sequencing[1]. On7[th] July, India registered a total of 22,252 new COVID-19 cases and 467 reported deaths. India has now been considered as the third-affected country by WHO with a total of 743,481 COVID-19 cases reported to date whereas 20,194 Around Death most affected state is Maharashtra India[2]. Members of this vast family of viruses can cause enteric, hepatic, respiratory, and neurological diseases in different animal species, including, bats, cattle, cats, and camels[3]. India is becoming the epicenter of the global fight against coronavirus. the quantitative scientists, many researchers, and mathematicians are chip into decode the pandemic,these quantitative scientists are using various mathematical models for predicting the coronavirus cases in particular region, city or a state, mathematical epidemiology is also performing a vital role in the battle against pandemic and handling covid-19.There are a lot of myths about novel coronavirus regulating on social media, UN official magazine stated that WHO recommends social distancing and country-wise lockdown are very essential to tackle the coronavirus,Amid top myths debunked.These models help in projecting the new coronavirus infection in any country.

A coronavirus is a typical kind of infection that

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generally causes gentle sicknesses, Viruses are very genetically diverse.

Globalization and the coronaviruses-Amid top myths debunked

There are lots of myths regarding the coronavirus, many people think it's a new virus but is one among the many ancient viruses

1.First oncet-229E - in USA (1995)

2.Second outbreak - NL63 - in Netherland (2004)

3.Third outbreak - HKU1 - in Hong Kong (2005)

4.Fourth outbreak COVID19 - in China (2019)

The vast majority contaminated with the COVID-19 infection will encounter mellow to direct respiratory illness and recover without requiring any clinical or special treatment.

1.The Most mutual symptoms of CoronaVirus:
Dry cough and fever

2. Little-Less common symptoms of corona Virus:
Body pains and aches,sore throat,diarrhea, headache, mild skin rash, discoloration of fingers or toes

3.Serious symptoms:
Difficulty in breathing or grade-2 / grade-3 – shortness of breath (SOB),Rapid or abnormal breathing issues (Tachypnea),chest pain or pressure in the chest.

Mathematics of Corona Virus:
The S-I-R model-

This is the most basic mathematical model to tackle any pandemic of infectious disease. This model represents the significance of social isolation for those infected. staying at home or be in a quarantine centers until fully recovered,which helps in flattening the curve and decrease the rapid spread of covid-19

Phases of covid-19-

Stage -1- The person who have traveled abroad are only test positive, there will be no locally spread of covid-19

Stage-2-There will usually be family or companions or colleagues of the individuals who travelled abroad and get covid positive after close contact with the infected one.

Stage-3-The stage called as a community transmission stage. Individuals who don't have any travel history and does not have any interaction or exposed to the infected persons also tests positive for coronavirus countries like India,Pakistan,up, Singapore, Italy, Spain, and France are currently under stage-3 of the pandemic.

Stage-4-This is the most noticeably terrible phase of the covid-19 disease where it assumes the type of **an** epidemic. There will be massive quantity of infected patients and front line professionals or health care warriors can't handle the circumstance and it is exceptionally hard to control and contain the spread. Whereas America, Canada, India are expected in this stage.

Statistics Of Covid19:

Till Current data on 12th July 2020 India was third largest country affected by corona virus with 879,466 total cases, 30k around death. A total of 554,429 have recovered and the recovery rate is 61.53 per cent. In **figure 1.1. Total Effective State by corona in India** is mentioned. In this table recovery rate, mortal rate, percentage of state covid19, total cases are in detail is there respectively:

State Name till 7th July 2020	Total Infected till 7th July 2020	Active Cases till 7th July 2020	Total Recover till 7th July 2020	Total Death till 7th July 2020
Maharashtra	211987	87699	115262	9026
Tamilnadu	114978	46836	66571	1571
Delhi	100823	25620	72088	3115
Gujarat	36722	8497	26315	1960
Uttar Pradesh	28636	8718	19019	809
Telangana	25733	10646	14781	306
Karnataka	25317	14388	10527	401
MP	15638	3891	11747	626
Haryana	18003	4274	13729	287
Punjab	6699	2119	4580	174
Kerala	5815	2307	3508	29
Assam	12932	4293	8639	14
Jharkhand	2913	822	2091	21
Odisha	9982	3234	6748	40
Dadra and Nagar Heveli	513	405	183	0
Arunachal Pradesh	280	276	118	2
Himachal Pradesh	1091	302	789	11
Mizoram	197	64	133	0
Andaman and Necobar	153	147	76	0
Sikkim	125	50	75	0
Lakshadweep	0	0	0	0
Meghalaya	80	36	43	1
Bihar	12404	3175	9229	99
West Bengal	23848	8089	15759	801
Andhra Pradesh	21341	11923	9418	246
Nagaland	660	405	255	0
Pondicherry	802	471	331	12
Ladakh	1005	159	846	01

State Name till 7th July 2020	Total Infected till 7th July 2020	Active Cases till 7th July 2020	Total Recover till 7th July 2020	Total Death till 7th July 2020
Goa	1865	679	1186	07
Tripura	1792	556	1236	01
Chhatisgarh	3403	670	2733	14
Jammu and Kashmir	8291	3540	5381	144
Rajasthan	21212	4584	16628	466

Figure 1.1: Total Effective State by corona in India (data has taken Aarogya Setu Official Website)[4].

Coronavirus Myths Busted:

More than one-third of the population of the world is under some of the restrictions China, India, France, Italy, New Zealand, USA, and the UK have implemented the many largest and most restrictive mass quarantines of the world, Emergency protocols that usually prevent people from leaving an area(Lock-down) have reached a grim milestone, In UN official magazine WHO recommends that social distancing and country-wise lockdown are very essential to tackle the coronavirus. A lot of myths around the novel coronavirus are doing rounds on social media. Amid top myths debunked.

1. COVID-19 can't be transmitted through flies-coronavirus can be transmitted through droplets of the contaminated individual Droplet transmission happens when an individual is in close contact (inside 1 m) eg-hacking and wheezing.

2.COVID-19 virus cannot be transmitted with hot and humid climates- there is a myth that this virus cannot stand the hot and humid temperature and will die eventually but it can spread with such climates and can be only preventable by maintaining at least 1m social distancing and by frequently cleaning your hands

3.Cold weather and snow Cannot kill the new coronavirus-there is no particular reason to believe these myths that cold temperature and snow cannot kill or prevent one to get infected with coronavirus the most effective way to prevent from coronavirus is to clean your hands with help of soap and water or frequently sanitize with alcohol-based hand gel.

4.Using ultra-violet (UV) lamps to disinfect hands-ultraviolet lamps should not be used to clean hands or other parts of skin it may cause some skin irritation the best way to disinfect hands with alcohol-based hand rub

4.Thermal scanners at the airport cannot detect coronavirus -thermal scanners are usually meant to detect the fever or people who have higher than normal body temperature, In most scenario coronavirus can be symptomless (Asymptomatic) and there are many causes of fever

5.Antibiotics prevent us from coronavirus –There are no such antibioticsto treat the coronavirus, but doctors now use it as a preventive aspect of care, it cannot be used as a means of prevention and treatment.

6. Having mix syrup of black paper honey and garlic prevent corona virus:

There is no proper studies and evidence that support having these sorts of syrups prevents the coronavirus, although garlic and honey have some antimicrobial activity still, it cannot prevent one from COVID-19.

7. Regular Garlic with salt water prevents corona virus:no salt water gargling is only good for a sore throat but I cannot prevent coronavirus.

8.Coronavirus can only affect older and younger people WHO recommends all age group should take protective steps as a precaution, people of all ages can get infected with coronavirus, individuals with old age with barely any comorbidities, for example, diabetes, asthma, and coronary illness are increasingly vulnerable to become severely ill.

Current Efforts:

There has been a rapid response by the Government of India and other Authorities or government administration officials to the pandemic of COVID-19. With several initiatives taken, to avoid the mistake of confusing right information with knowledge and services thus the Government of India (GOI) launched the coronavirus chatbot which includes-

1.Necessary precaution information-valid information,comforting information, perplexing information

2.Symptoms of the COVID-19-from mild to moderate and severe

3. Helpline numbers-for central, states and UT, Central Helpline Number for corona-virus in India is +91-11-23978046

4. Affected no of cases in the regions (A coronavirus tracker App)-the chatbot APP in India called Aarogya setu app helps in tracking the coronavirus infection by using smartphones and GPS with more accuracy and effectivity, also helps the user to deal with misinformation and disinformation about the pandemic.

Moreover, Wikipedia is showing COVID-19 information in nine Indian languages with the help of Swastha and WikiProject Medicine. Twitter is

banning and Facebook is curbing those who are spreading false and misleading information regarding COVID-19. Apple and Google have removed hoax coronavirus applications from app stores

Many telecommunication brands such As-Airtel, BSNL, and Reliance Jio have changed their caller tunes, these caller tunes eventually start with a coughing sound and highlight the preventive measure of coronavirus. To make the public aware about the COVID-19 Pandemic[5]; The Union Health Ministry also has set up a control room to tackle COVID-19 -related queries. The GOI has set up a 24x7 helpline that will answer all the queries asked by the public regarding the novel Coronavirus. The ministry of electronics and information technology has launched a location-based application that will track the user and check if the person has come in contact with a COVID-19 positive Patient. Meanwhile, the Ministry of health affairs has released new guidelines named 'UNLOCK 1.0' which will come into effect from June 08, 2020, in all areas of India except in the Containment zones. In the territories of clinical case management, endeavors to create and guarantee proof based treatment rules are continuous in India.

There are about 30 health care companies that are making efforts in India for developing vaccines, out of which 20 groups are keeping a good pace. Mynvax, an Indian Pharmaceutical startup is focusing on developing a protein-based vaccine. ICMR-Bharat Biotech Vaccine is trying to develop a vaccine by using an existing deactivated rabies vaccine as a potential for coronavirus proteins in collaboration with the Thomas Jefferson University of Philadelphia. Sun Pharmaceutical Industries Ltd has also joined the race to develop a potential vaccine for coronavirus by using a pancreatitis drug, Nafamostat on Covid19 patients. Ramdev's Patanjali group has also got permission to conduct clinical trials from regulatory authorities and they are trying to develop a cure for the vaccine and not an immunity booster[6]. About 53 plant quarantine stations are made functional in about 21 states of India. The Indian Government is taking ordinary measures to raise the limit with regards to testing COVID-19 in India. As indicated by the Indian Council of Medical Research, on April 1, 2020, there are around 126 government labs in different states of India which have been approved to test for COVID-19. Efforts are made and guidelines as "Zero physical contact" have been developed for domestic travel in India. The standards of 14-day isolate to 7 days' home isolation guidelines have additionally been clarified. The government

has temporarily shut down educational institutes to restrict the spread of coronavirus.

Challenges:

The government of India and the World Health Organization, together have strengthened to overcome the COVID-19 challenges. Despite all these efforts, India is facing shortages in medical supplies in terms of the health care system and thus unable to control the spread of COVID-19 as appropriate. As the number of cases is rising in the country every day, India's health care system needs to struggle and proper training should be given to the health care workers to treat the patients[7]. This COVID-19 has significantly disrupted the education sector, which is an economic future of the country. A large number of Indian students prefer to study in universities abroad; if this pandemic situation persists it may lead to a decline in the demand for international education. The biggest concern in mind is the effect of disease on the employment rate. Recent graduates fear the withdrawal of job offers from corporate in India during a pandemic.

Immediate measures need to be taken to proceed with online education in schools and universities in India. Students need to learn basic management software such as the zoom app for online classes and much more open-source digital learning solutions should be implemented for promoting an online education in India. Immediate measures are required to mitigate the effects of the COVID-19 on internship programs including job offers and research projects. Moreover, Lockdown with some relaxations needs to remain in India for a longer duration to beat this COVID-19 pandemic.

Due to this coronavirus lockdown the factories, industries, and workplaces remain shut lead to many daily wage earner and many migrant workers, mediocre suffer food shortages and uncertainty about their future, with no work and no money hundreds and thousands of workers are bicycling and walking hundreds of kilometers to go back to their native home, village(town).

Conclusion:

The government of India(GOI) is taking all the preliminary precautions and tackling the pandemic at its best and seeks to limit the spread of coronavirus with many provisions such as-providing valid information, releasing national, state and UT's 24*7-helpline numbers with caller tunes which highlight the preventive measures of COVID-19, The GOI is using artificial intelligence (AI) via technology such as by setting up Aarogya setu App which helps in

creating awareness about infection and contamination zones more predominantly, although India is facing a lot of challenges in terms of economy, education, corporate, transportation and health care sector. As the lockdown in India begins to ease with some relaxations India requires continued efforts to contain the coronavirus.

Recommendations:

In this article we discuss about recent update of corona and information, implementation by government of India such as ***Aarogya Setu Application .*** Author'srecommendate to readers, scientists, researcher, students, to follow the government rules and regulation in this Pendamic period all country suffering and India is in top 3rd position in corona cases &top cases of corona drastically increasing in Maharashtra region. Whole world is suffering. We have to help each other in this Pendamic period school, college, job issues everyone is suffering problem specially private sector we also have to support own country and WHO Rules regulations. Maintain distance, using mask, stay home.Boost immunity naturally by using ***Black seeds.***

- Maintain Social Distance
- Follow Government or higher authority rules
- Eat Healthy and Clean Add Food Those boots immunity Naturally Ex. ***Black Seeds***
- Avoid Cold Products
- Gargle in a week, wash proper hands and packed products, sensitizer area where you live.
- Maintain Personal Hygiene

Ethical Clearence: Not Applicable for review article in this institute.

Contribution Of Authors:

Data gathering and idea owner of this study: UY; **Study design:** MGK, AC; **Data gathering:**TS, UY; **Writing and submitting manuscript:**MGK, UY, AC; **Editing and approval of final draft:** TC, UY; **Visualization:**MGK, AC; **Proofreading:** UY

Conflict Of Interest:

The authors declare no conflict of interest.

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