

Covid-19 and the World Tomorrow

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“COVID-19 pandemic-Humanity needs leadership and solidarity to defeat the coronavirus”.

United Nations Development Programme (UNDP)

Abstract

The outbreak of respiratory illness, coronavirus disease (COVID-19) has occurred in Wuhan, Hubei Province, China in December 2019 and spread to 213 countries. India with 2.87 lakh infections per day will be at the top in the world by the end of winter 2021. Lockdown is an effective preventive measure but it has certainly hit badly also. India is also badly affected and facing recession. Health of the people with low incomes is compromised badly that may lead to an enormous increase in the number of communicable diseases. Another cause of great concern is that regular public health programs especially the National Immunization Programme seems to have been sidelined. Elderly people may experience further loneliness. Many health care workers have lost their lives. They are working in a very stressful condition risking their own lives. Infected mothers and babies are not allowed to come close, affecting their mental health states. Many of us are staying at home. WHO's Be Active Campaign aims to help you do physical activity and some fun at the same time. Just taking a short break from sitting, do light intensity physical movement, such as walking or stretching for 3 - 4 minutes. All efforts should be made to prevent the explosive situation. Health and hygiene should be given the utmost priority. We may create a clean and healthy home where adequate handwashing facilities are to be provided at the door-step. Antiseptic dispensers with sensors may be installed at the entrance of the house or workplace. We should make up our minds to work from home and prefer online shopping. There is an urgent need to eliminate panic among the people. Sustained Information, Education and Communication (IEC) activities should be carried out more vigorously to sensitize the people regarding various aspects of Covid-19.

Keywords: *Coronavirus; Covid-19; Handwashing*

Introduction

A virus that has changed the world and it seems that it will change the world order. The outbreak of respiratory illness, coronavirus disease (COVID-19) has occurred in Wuhan, Hubei Province, China in December 2019 and spread to 213 countries and brought the world into uncharted waters [1]. World Health Organization has already declared its pandemic and public health emergency of international concern, the highest level of alarm under international law and the world [2].

Epidemiology

There have been 28,637,274 confirmed cases of COVID-19, including 917,401 deaths in the world and 4,754,356 confirmed cases of with 78,586 deaths, as reported to WHO as of 13 September 2020 [3]. Country wise summary of cases of Covid-19 is given below (Figure 1) [4]. In India, the picture is gloomy and cases are rising explosively every day in India (Figure 2) [5].

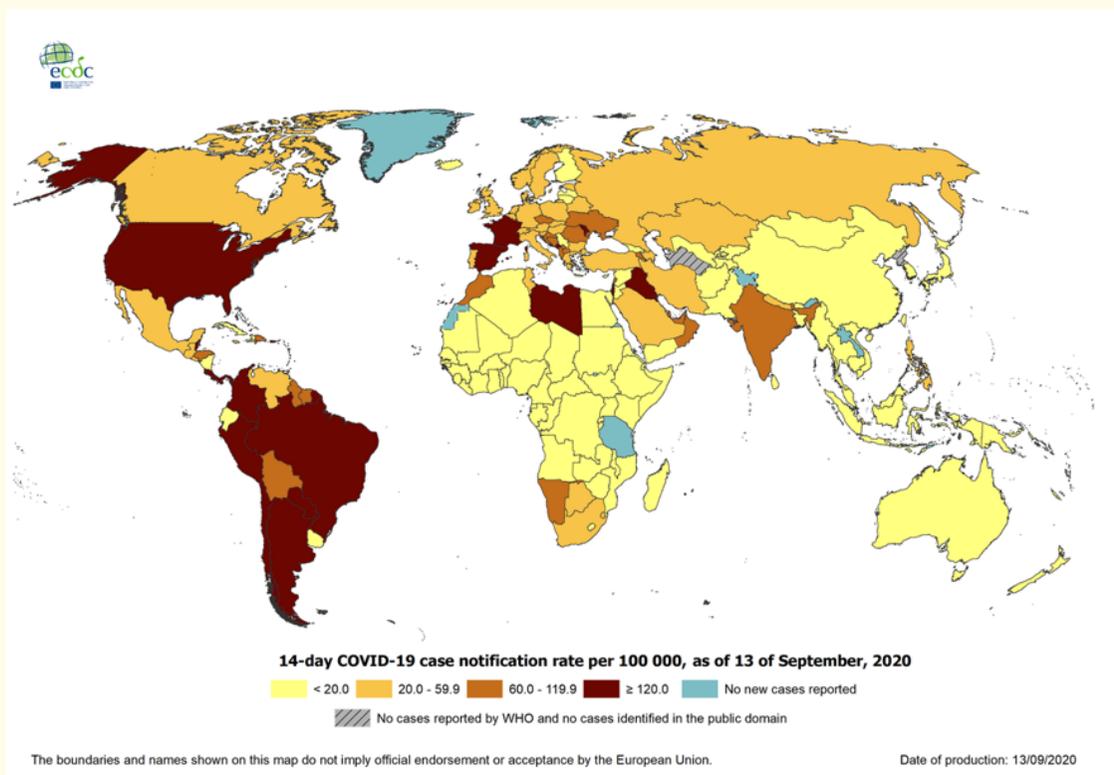


Figure 1: Distribution of COVID-19 cases worldwide, as of 13 September 2020.

Top ten countries by projected daily infection rates at the end of winter 2021 are India with 2.87 lakh infections per day, followed by the United States, South Africa, Iran, Indonesia, the UK, Nigeria, Turkey, France, and Germany in the absence of a vaccine or drug interventions, according to a modeling study by the researchers from Massachusetts Institute of Technology (MIT) [6].

The history of human coronaviruses began in 1965 when Tyrrell and Bynoe found that they could passage a virus named B814 [7]. Since that time only 31 additional strains have been recovered. Ten of these were originally recovered in human embryonic tracheal organ cultures only, and the remainder in monolayer cell cultures [8].

At least seven types of coronaviruses have been found that affect humans namely HCoV-229E (human coronavirus 229E), HCoV-HKU1 (human coronavirus HKU1), HCoV-NL63 (human coronavirus NL63), HCoV-OC43 (human coronavirus OC43), SARS-CoV (SARS coronavirus), MERS-CoV (Middle East respiratory syndrome coronavirus) and 2019-nCoV (COVID 19) [9]. Phylogenetic classification of

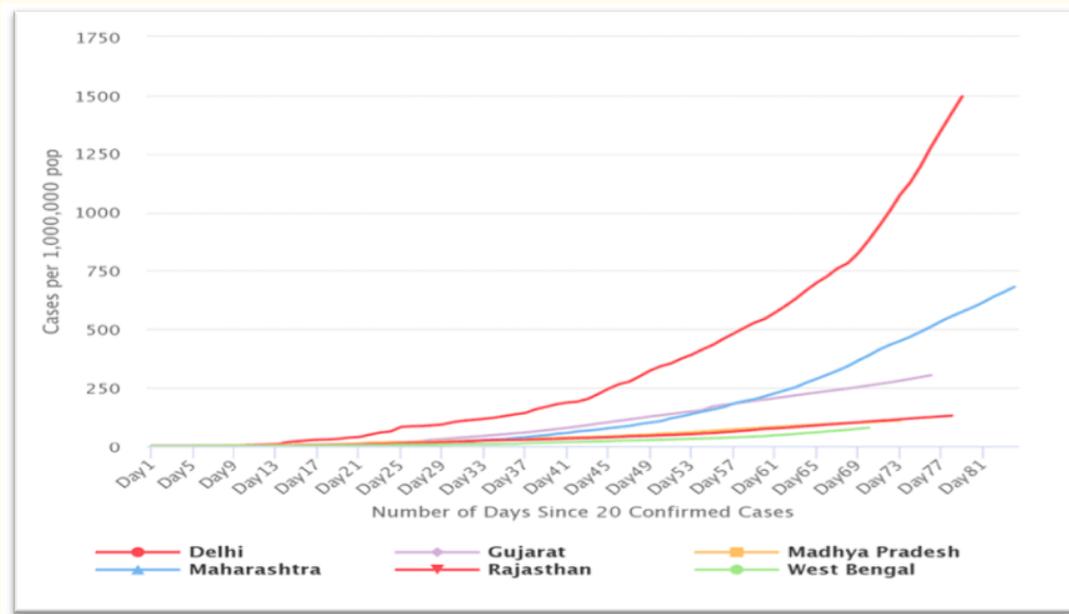


Figure 2: Cumulative cases of Covid-19 per 1,000,000 by Indian states.

coronaviruses is given below (Figure 3) [10]. Severe acute respiratory syndrome (SARS) that started in china in 2003 was also caused by another type of coronavirus [11].

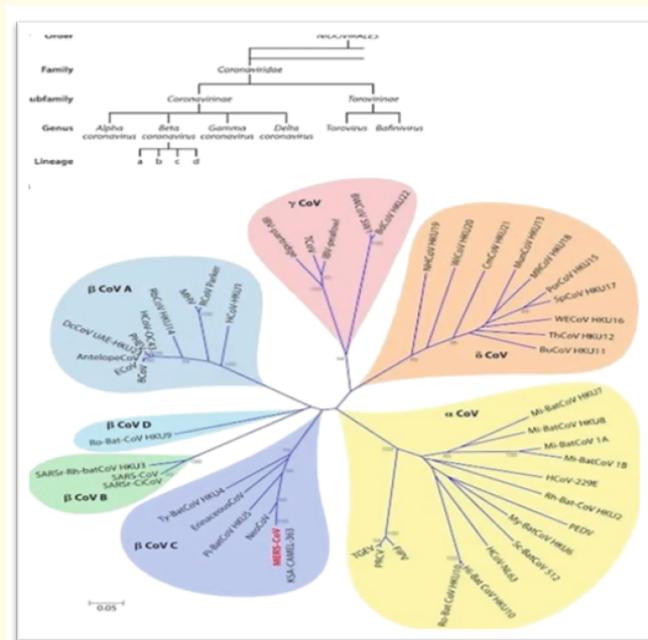


Figure 3: Cylogenetic classification of coronaviruses.

It is believed that the virus responsible for Covid-19 may have been transmitted from infected animal to man in a fish, animal, and bird market in Wuhan [12]. It is difficult to ascertain which animal is implicated in the transmission of Covid-19. Bats are considered culprits, a possible source of infection that is taken as favourite food item in China. Various animal origin coronaviruses are given below (Figure 4) [13].

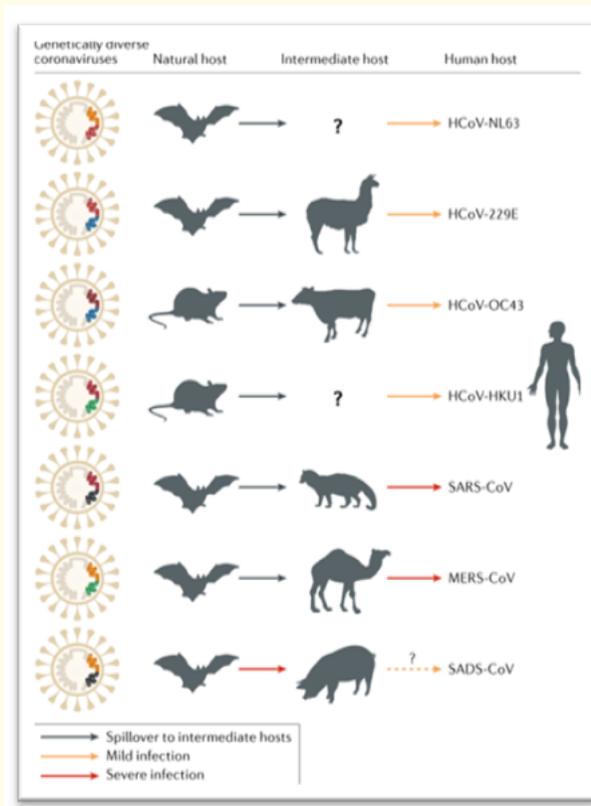


Figure 4: Animal origins of human coronaviruses.

Most of the people get infected with one or others at some point of time in their lives, causing mild infection like the common cold.

Public health aspects of protection against COVID-19 infection

Lockdown is an effective preventive measure but it has certainly hit badly also. It causes a burden on the global economy. India is also badly affected and facing recession. Many people have lost their jobs and others are facing unemployment.

These measures may be acceptable and practiced mostly by the middle and upper-income groups. Health of the people with low incomes is compromised badly that may lead to an enormous increase in the number of communicable diseases. They may miss their routine medications like anti-tubercular doses (ATT). Another cause of great concern is that regular public health programs especially

the National Immunization Programme, care for pregnant women and infants seem to have been sidelined which may further worsen the health situation in the country.

Elderly people, who are spending stressful life due to the breakdown of traditional Indian joint family systems especially in urban areas, may experience further loneliness. They are confined to their houses, and not advised to come out for social gatherings in the parks during a routine walk.

Many health care workers have lost their lives. They are working in a very stressful condition risking their own lives. People who are quarantined must be having scars of their experiences. Infected mothers and babies are not allowed to come close, affecting their mental health states.

Many of us are staying at home. It is difficult for many of us to do some exercise we normally do. People of all ages need to be as active as possible. WHO's Be Active Campaign aims to help you do physical activity and some fun at the same time. Regular physical activity benefits both the body and mind. Just taking a short break from sitting, by doing 3 - 4 minutes of light intensity physical movement, such as walking or stretching, will help ease your muscles and improve blood circulation and muscle activity thereby reducing high blood pressure, weight gain and the risk of heart disease, stroke, type 2 diabetes, and various cancers - all conditions that can increase susceptibility to COVID-19 [14].

Improving mental health status will be effective in reducing the risk of depression, cognitive decline, and delays the onset of dementia - and improve overall feelings.

Eating a healthy diet is very important during the COVID-19 pandemic which prevents, fights, and recovers from infections. While no foods or dietary supplements can prevent or cure COVID-19 infection, healthy diets are important for supporting immune systems. Smart nutrition including a good amount of protein can also reduce the likelihood of developing other health problems, including obesity, heart disease, diabetes, and some types of cancer.

Sleep is very crucial to our body's response to anything foreign. We have two types of immunity and sleep plays an important role in both. It is also a key promoter of emotional wellness and mental health.

All efforts should be made to prevent the explosive situation. Health and hygiene should be given the utmost priority. We have to prevent the spread of the virus at any cost. For this, the following preventive measures have been recommended:

- Wash your hand and exposed parts (face) frequently with soap and water.
- Avoid touching your face, including mouth, nose, and eyes unnecessarily.
- Maintain a distance of at least six feet from people (Social Distancing rather physical distancing).
- Respiratory etiquette should be followed while coughing, and sneezing-covering face.
- Self-isolate from others in the household if you feel unwell.
- If you have a fever, cough and difficulty breathing, seek medical attention.
- Leave your shoes at the entrance area which should be earmarked.
- Leave clothing and belongings in the courtyard rather than carrying these dirty items in the living room.
- Unnecessary meetings with people should be avoided.
- If you need to leave your house, wear a mask to avoid infecting others.

How Covid-19 could redesign our world

Response and recovery plans need to be more dynamic like the pandemic. Districts have been classified into red, orange, and green zones to enable phased emergence from lockdown.

After the pandemic is over, another pandemic of mental health problems may set in. We should be prepared to tackle this eventuality. Since health services to general patients in public and private sectors are also disrupted, now the time has come to start and strengthen telemedicine services to replace in-person consultations.

Covid-19 has changed the behavior and experience of being an employee, employer, and human beings. It is expected that in the future passport, the person is immune through infection or vaccination, a certain level of protective antibodies are present in the blood of the person.

We desperately need herd immunity to develop and availability of an effective vaccine which is still months away. Trials are going on in many places.

It is time to mend our attitude towards our health and lifestyle. Hugs, handshakes, and other social rituals may change forever. We have to be acclimatized in that social environment and cope with the presence of changing values and habits.

Conclusion

We may create a clean and healthy home where adequate handwashing facilities are to be provided at the door-step. Antiseptic dispensers with sensors may be installed at the entrance of the house or workplace. We should make up our minds to work from home and prefer online shopping.

The deadly virus has not cared for borders, countries, race, ethnicity and colour affecting people of a single planet. We should be prepared for lives that are mostly indoors until the normalcy returns.

Government agencies should quickly incorporate recent scientific research findings into public policies at the community, regional, and national levels to slow down and /or prevent the further spread of the COVID-19. We recommend that the scholarly community conduct further research to provide valid and reliable ways to manage this kind of public health emergency especially preventive aspects in both the short-term and long-term.

The key messages include, the way to choose and wear face masks, proper handwashing habits, preventive measures at different locations (e.g. at home, on public transportation, and public space), disinfection methods, and medical observation reception. Additionally, to handle the COVID-19 outbreak, there is an urgent need to eliminate panic among the people. Sustained Information, Education and Communication (IEC) activities should be carried out more vigorously to sensitize the people of various aspects of Covid-19.

"The six best doctors in the world are the sunlight, rest, exercise, diet, self-confidence and friends.

Maintain them in all stages and enjoy a healthy life".

Steve Jobs

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