



Covid-19: Its impact on Human life, Economy and Environment

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ABSTRACT

Today, the entire world is witnessing the drastic effects of Covid-19, a pandemic disease caused due to novel strain of coronavirus. The disease has put the entire world on the halt. It has not only claimed lives of lakhs of people worldwide but also has negatively impacted the global economy. Each and every sector like agriculture, transportation, education, sports, entertainment, etc. have been affected severely due to this disease. Country wide lockdown has been imposed by the government to avoid the movement of the people. Various awareness campaigns encouraged 'Stay home and Stay safe'. The environment is witnessing both positive and negative impacts. On one hand, lockdown has helped the nature to recover due to minimisation of the anthropogenic pollution while on other hand the amount of solid waste generation has increased. In order to control the spread of disease, the government has initiated various steps like social distancing, wearing masks, frequent washing of hands, avoid public gatherings, etc. People can overcome the disease spread only when every individual will give their best to keep self-safe.

Keywords: Covid-19, Impact, Life, Economy, Environment, Lockdown

INTRODUCTION

The world has witnessed several severe epidemics such as the Spanish Flu (1918), outbreak of HIV/AIDS, SARS (Severe Acute Respiratory Syndrome), MERS (Middle East Respiratory Syndrome) and Ebola. In the past, India had to deal with diseases such as the small pox, plague and polio [1]. The start of 2020 has marked the spread of another pandemic, Covid-19 or nCoV-

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19 which originated in Wuhan city, China in December 2019. It is caused by a new strain of coronavirus called SARS-CoV-2 (Severe acute respiratory syndrome coronavirus 2). A coronavirus causes an infection to respiratory system. The sources of the virus are probably bats via pangolins [2,3]. In early 2020, the World Health Organization identified the disease as pandemic which quickly spread around the

world and it turned out to be the biggest health crisis in the history. Many experts have already called this a Black Swan event for the global economy [1]. The pandemic disease spreads through person to person contact. Effects might range from mild to lethal [4]. According to World Health Organization's reports, there are 94,13,289 confirmed cases and 4,82,730 confirmed deaths globally as on 26th June 2020. In India, as on 27th June 2020, there are 5,08,953 confirmed cases out of which 2,95,881 have recovered while 15,685 have deceased. Maharashtra and New Delhi are worst affected states by coronavirus in India. Various frontline warriors like doctors, nurses and other medical staff, policemen, administrative staff of essential services around the world has put their life on risk to battle against the pandemic. Even though these warriors are wearing personal protective equipment (PPE) for their protection, still some are succumbed to the disease.

The pandemic has put the entire world on halt. It has affected the global economy, education, lifestyle, etc. Scientists all over the world are putting efforts to discover vaccines against this coronavirus. Meanwhile lots of awareness is being created by the government to control the spread of disease through imposition of lockdown. The purpose behind lockdown is to maintain social distancing which is at outmost need to avoid the virus spread. The lockdown period provides time to prepare the health system and to put together a plan of how to deal with the outbreak once the case load starts accelerating. India's public health system is relatively weaker than other countries. As per economic survey (2019-20), the government spends only 1.5% of the total GDP on public health as a result of which the system is grossly underprepared to deal with a health crisis [5].

In India, the first case of the disease was recorded on 30th January 2020. Since then the cases have increased steadily and significantly. In order to curb the spread of the virus, the government of India announced series of lockdown starting from 25th March 2020 for three weeks, second phase was from 15th April to 3rd May 2020, third phase from 4th May to 17th May 2020, fourth phase from 18th to 31st May 2020 and phase five is only for containment zones from 1st to 30th June 2020. All non-essential services and businesses, including retail establishments, educational institutions, and places of religious worship, public utilities and government offices across the country are closed during this period and all means of travel like airways, railways, buses, taxis, etc. have been stopped. This has directly and indirectly affected economy of the country.

Impacts of Covid-19

Impacts on human life: Coronavirus is highly epidemic in nature. It has been observed that people with extreme age groups like smaller children and older ones, people with medical history like diabetics, high blood pressure, and cancer and people having poor immunity are more susceptible to get infected easily. However, other people can also be infected if proper precautions not taken. The disease shows mild symptoms to severe illness and it may appear 2-14 days after exposure to virus. Centre for Disease Control and Prevention (CDC) has identified various symptoms for infection. Most common symptoms of infection include fever, dry cough and tiredness while some infected may also show aches and pains, sore throat, diarrhoea,

headache, loss of taste or smell, skin rashes, discoloration of fingers or toes, etc. [4]. The severe symptoms include difficulty or shortness in breathing, chest pain or pressure and loss of speech or movement [6]. New symptoms are being added in the list as and when it is identified.

Impact on economy: The outbreak of the Covid-19 pandemic has been an unprecedented shock to the global economy. The global economic downturn and associated disruption of demand and supply chains, the economy has faced a protracted period of slow down with the prolonged country-wide lockdown. On April 9, 2020, the chief of International Monetary Fund, Kristalina Georgieva said that the year 2020 could see the worst global economic fallout since the Great Depression in the 1930s, with over 170 countries likely to experience negative per capita GDP growth due to the raging coronavirus pandemic [7].

The lockdown had shown significant adverse effect on the economy. Several millions of jobs and livelihoods are at risk. As activity around the country has come to a halt, with no job or income, more than 50 million migrant workers have either returned to their native villages or are staying at camps inside the cities because state borders were sealed. Transportation of raw materials and finished goods across states is also severely constrained. Countries have closed national borders bringing international trade and commerce to an abrupt halt. All these are severely disrupting supply mechanisms and distribution chains in almost all sectors. At the same time, there has been a complete collapse of consumption demand as millions of people stay home and postpone their non-essential expenditures [1].

Impact on education: Education is one sector that has been affected drastically due to pandemic outbreak. Schools, colleges and other professional institutes have shut down completely right from mid of March 2020. The examinations of various levels have been cancelled. Students of lower classes are promoted to next class. Various national and international boards had postponed the examinations to July 2020 but looking at the present deteriorating condition, the Government unwillingly is cancelling the examinations. To minimize the loss, education has shifted to online mode as offline class is associated with high risk of spread of disease. Lectures, national and international webinars are being taken online by using various modes like Google meet, Microsoft teams, etc. Information technology is playing a key role for online activities.

Impact on environment: The outbreak of Covid-19 has marked both positive and negative impacts on the environment. Clean air and good water quality are essential for people's health; however, 91% of the world population lives in places where air quality exceeds the permissible limits [8]. As a precautionary measure, most of the industries were forced to shut down, hence no discharge of air and water pollutants to the environment. This has given time to the nature to revive them. The concentrations of major air pollutants like NO₂ and PM 2.5 are also reduced drastically. Because of the social distancing and lockdown, a notable positive change has appeared at many tourist places including beaches which are marked by cleaner and crystal clear waters but at the cost of economy of the tourist place. Noise due to transports causes discomfort to the population and the environment leading to health problems and altering the

natural conditions of the ecosystems [9]. The lockdown by most governments has caused people to stay at home which resulted insignificant decrease in the use of private and public transport system. Also, commercial activities have stopped almost entirely. All these changes have caused the noise level to drop considerably in most cities in the world. The present pandemic has also caused negative impact on the environment. The quarantine policies, established in most countries, have led consumers to meet their demands through online shopping for home delivery. Hence, generation of wastes like packaging material by households has increased. Medical waste is also on the rise. For example, hospitals in Wuhan previously produced average of fewer than 50 tons of medical waste per day but now it has increased to an average of 240 metric tons during the outbreak. In other countries such as the USA, there has been an increase in garbage from personal protective equipment such as masks and gloves [10]. Further, as a result of the pandemic, countries such as the USA have stopped recycling programs in some of their cities, as authorities have been concerned about the risk of Covid-19 spreading in recycling centers. Waste management has been restricted in many countries particularly affected European countries. Also, the industry has seized the opportunity to repeal disposable bag bans, even though single-use plastic can still harbor viruses and bacteria [11,12].

Precautions

The government of all countries is taking steps to curb the coronavirus. Government of India under the guidance of Hon'ble Prime Minister Shri Narendra Modi has launched an app named 'Aarogya Setu'. It is a digital device developed for India and it aims to connect Covid-19 related health services with people of India. The app helps people to do self-assessment based on Indian Council of Medical Research (ICMR) guidelines and make them aware if they are exposed to infected person. Various awareness campaigns are being implemented to spread awareness about frequent washing of hands with alcohol-based hand rub, maintaining social distancing, wearing masks, avoid public gatherings and no use of public transport, etc. The Finance Minister of India on 26th March 2020 announced a Rs. 1.7 lakh crore package as relief fund for those who have been worse affected by the Covid-19 lockdown especially daily wage workers, urban and rural poor. The fund aimed to distribute essential goods to such needy people.

Testing

Food and Drug Administration (FDA) has given the testing details or diagnosis of coronavirus [13].

Diagnostic tests: It detects presence of active coronavirus infection in a person. This test can be done by two ways: Molecular (RT-PCR) that detects the virus genetic material and antigen test that detect specific proteins on the surface of virus.

Antibody test: It is based on antibodies that are made by immune system in respond to a threat such as specific virus. Antibody helps to fight against infections. It might take several days or weeks to develop after an infection and may stay in the blood for several weeks after recovery. The drawback of this test is it can give false positive results. Hence, molecular test is considered

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to be accurate as compared to antibody test. Most of the tests use nasal or throat swab while saliva is used in some cases.

During public health emergency like Covid-19, there is an urgent need for products to diagnose, treat or prevent a medical threat. There are three ways a coronavirus test might be used for this emergency

- Emergency use authorization (EUA): In certain types of emergency, the FDA can issue an EUA to provide more timely access to critical medical products that may help during the emergency. It is different from full approval or license; instead it evaluates the options very quickly using the available evidences, carefully balancing the risks in addition to other criteria.
- Lab developed tests (LDT): It is an *in vitro* diagnostic test. That is manufactured by and used within a single laboratory. The FDA provides flexibility for labs that develop and perform their own coronavirus testing where the lab validates the test, notifies FDA and submits the validation data to them within a certain timeframe as part of an EUA request. Many labs purchased commercial tests under an existing EUA, other labs developed and validated their own tests under this temporary policy.
- State authorization: The FDA is providing flexibility to states who want to authorize labs certified to conduct high complexity test in that state to develop and perform coronavirus testing. Under this policy, the state or territory takes responsibility of the safety and accuracy of Covid-19 testing by laboratories in its state/territory and the lab does not submit an EUA request to FDA.

CONCLUSION

The present paper aims to provide some insights about the Covid-19 pandemic which has hit globally in terms of economy, health, education, entertainment, agriculture, etc. People are witnessing improvement in air and water quality but at the cost of human lives. Even though government of all countries are taking lots of efforts to control the disease but due to casual nature of some people and interferences by politicians, the results of positive efforts are slowed down. Media are playing important role in updating people about status of coronavirus. The world can get rid of this critical situation only if each and every individual give their best by following proper precautions to avoid spread of disease. Furthermore, the virus crisis brings other environmental problems that may last longer and maybe more challenging to manage if countries neglect the impact of the pandemic on the environment.

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