Article

Towards controlling the Catastrophe caused by Covid-19 and make the future certain and healthy

Journal of Development Economics and **Management Research Studies (JDMS),** ***A Peer Reviewed Open Access International Journal***
ISSN: 2582 5119 (Online)
05(05), 37-42, July-September, 2020

Towards controlling the Catastrophe caused by Covid-19 and make the future certain and healthy

Dr.X.Vincent Jayakumar[1]

Abstract

The world has endured several notable pandemics, including the Black Death, Spanish flu, and human immunodeficiency virus/acquired immune deficiency syndrome. The variety of pandemic threats is driven by the great diversity of pathogens and their interaction with humans and they vary across multiple dimensions, including the mechanism and dynamics of disease transmission, severity, and differentiability of associated morbidities. Garbage generated in Chennai is dumped at two land fill sites and construction and demolition waste is being used for covering each layer of garbage in two dump sites. The complete shutdown of the economy is very much essential at the initial stages of the detection of corona virus and stage until awareness about the disease is reaching each and every individuals of the country.

Keywords: Pandemics, morbidities, vaccine, COVID-19, Wuhan, China

Introduction

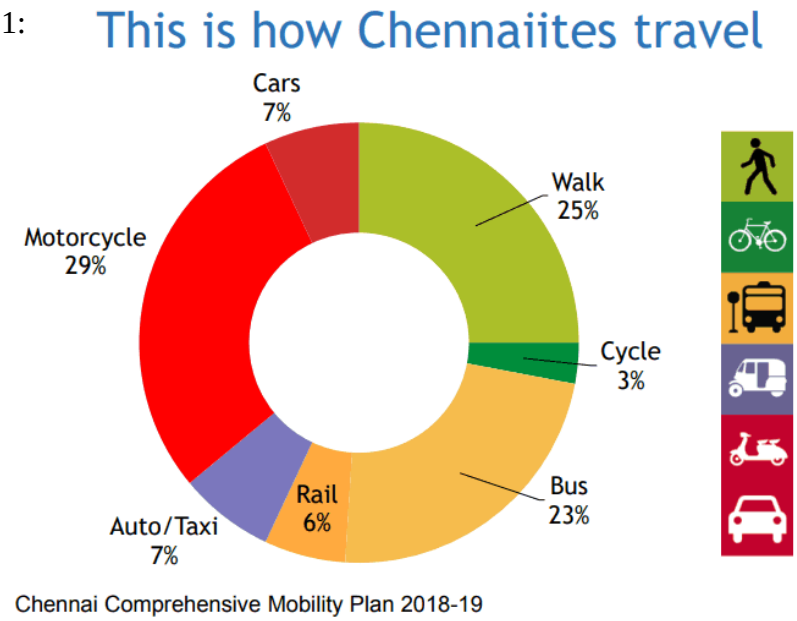
Pandemic causes widespread morbidity and mortality as well as social, political, and economic disruption. There are several prominent pandemics like the Black Death, Spanish flu, and human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS). Because the definition of pandemic primarily is geographic, it groups together multiple, distinct types of events and public health threats, all of which have their own severity, frequency, and other disease characteristics. Each type of event requires its own optimal preparedness and response strategy; however this chapter also discusses common prerequisites for effective response. The variety of pandemic threats is driven by the great diversity of pathogens and their

[1] Faculty of Economics, RKM Vivekananda College, Chennai.

interaction with humans. Pathogens vary across multiple dimensions, including the mechanism and dynamics of disease transmission, severity, and differentiability of associated morbidities. These and other factors determine whether cases will be identified and contained rapidly or whether an outbreak will spread (Fraser and others 2004). As a result, pathogens with pandemic potential also vary widely in the scale of their potential health, economic, and sociopolitical impacts as well as the resources, capacities, and strategies required for mitigation. And of late a new pandemic in COVID-19 is the name given by the World Health Organization (WHO) on February 11, 2020 for the disease caused by the novel Coronavirus SARS-CoV-2. This virus spread from Wuhan, China in late 2019 and since then multiplied worldwide.

Mode of travel and control of Corona virus

Chart 1:



Chennai Comprehensive Mobility Plan 2018-19

The above diagram shows that a mammoth 29 % of the population use two wheelers , 23% travel by bus and 25 % walk .In this the use of two wheelers should be deprived of pillion riders to have healthy ride . Those of travelers travelling by bus should be confined to only seats and no standees be allowed and the same 40 seated bus should be reduced to 20 seated for healthy travel. And those who walk also should be forced to follow the code of conduct like having one metre distance with other pedestrian, the pedestrians should strictly use the pavement, use dust bins, follow traffic rules and should not litter as they like. These measures will help control corona virus. As regards train the number of passengers in the unreserved compartments should be reduced to 1/4th with sufficient space between passengers.

Poor maintenance and inadequacy of public conveniences

There are 714 public toilets in the metropolis of Chennai for a whopping 46.81 lakh people. Even, if you grant that there are a number of household toilets, 714 seem woefully inadequate for the city that is on its feet any time of the day and night. Last year, Chennai Corporation had announced that it would set up 100 more toilets on important roads, but around 20 could only be constructed, including two on the Marina Beach.

The question, however, is not only one of adequacy, but also of maintenance of these 714 units, having a direct impact on the health, hygiene and sanitation standards of the city. In a recent study done by Transparent Chennai, a unit of the Centre for Development Finance, at the city-based Institute for Financial Management and Research, it was found that there are issues with cleanliness, power and water supply to the toilets. And this is therefore an important factor deciding the control of any virus.

Waste generation and disposal in Chennai

At present Garbage generated in Chennai is dumped at two land fill sites and construction and demolition waste is being used for covering each layer of garbage in two dump sites. For remediation of the existing Landfill or scientific closure and to have the Integrated waste processing facilities with waste to energy plant as component at the existing Kodungaiyur and Perungudi dump sites, the Transaction Advisory Consultant have prepared DFR and sent for approval of the competent Authority and simultaneously the RFP documents are under preparation. Number of Disposal Sites are Two (Kodungaiyur and Perungudi). The clearing and removal of garbage should be done during the night or when the traffic is very minimum. In other words the removal of garbage from the city be in the early morning or late night. The corporation should also see that the garbage is safely cleared. The workers from the corporation be given off during the day as they should work on night shifts. As major wastes generated are from residential areas with 68% and the corporation authorities should be more concerned about the safe disposal of such wastes to prevent any infection through virus.

Table 1: Distribution of wastes generated in Chennai

S.No	Source of Wastes	%
1	Residential	68 %
2	Commercial	16 %
3	Schools, Institutions	14 %
4	Industrial	2 %

Coronavirus vaccine could control the Covid 19 ?

A vaccine would normally take years, if not decades, to develop. Researchers hope to achieve the same amount of work in only a few months. Most experts think a vaccine is likely to become available by mid-2021, about 12-18 months after the new virus, known officially as Sars-CoV-2, first emerged. Vaccine development, on average, takes 10.71 years from the preclinical phase, and has a market entry probability of 6%, according to a study in peer reviewed journal, PLOS One. The development includes at least three human trials to test their safety, dosage and the strength and duration of the protection they offer, followed by production, licensure, deployment of vaccines and plans for post-marketing surveillance.

"With Covid-19, the goal is to develop, test and manufacture a vaccine on a scale of hundreds of millions of doses within 12 to 18 months. Since the vaccine will be needed very quickly, an unprecedented approach has been taken by the companies. Since approvals are expected for an emergency use of the vaccine, they will start mass manufacturing as soon as they finish phase 2 trials and move to phase 3, and, in doing so, risk the failure of phase 3. In such cases, consortiums and countries fund for risk reduction and provide market commitments," said Dr N K Ganguly, former director general, Indian Council of Medical Research (ICMR). That would be a huge scientific feat and there are no guarantees it will work. Four corona viruses already circulate in human beings. They cause common cold symptoms and we don't have vaccines for any of them.

Plasma therapy for controlling Corona virus

Plasma therapy is being treated as yet another complementary treatment to help the COVID-19 patients recover. The convalescent plasma therapy involves transfusing a blood component known as plasma from the body of people who have recovered from the virus attack to the severely ill patients or Coronavirus patients who are at a high risk. This is said to help in kick starting the passive immunity in the patient and could help those whose bodies aren't producing enough antibodies to curb the disease.

Several hospitals across India have dived in to use plasma therapy for treating the Coronavirus patients including Uttar Pradesh, Rajasthan, Delhi, Maharashtra, and Madhya Pradesh. Delhi Health Minister had reported that six severely ill patients of COVID-19 had nearly recovered after the usage of convalescent plasma therapy. However, it is important to note that there are no definitive studies that show the effectiveness of plasma therapy in strengthening the immune system against the disease. Moreover, the Union Health Ministry has advised against considering plasma therapy as the ultimate treatment to battle the highly infectious disease as it is at an experimental stage and has the potential to cause life-threatening transfusion-related complications.

Non allopathic preventive treatment for Corona virus infection

Three types of traditional herbal practices, Ayurveda, homoeopathy, and unani, were suggested by the ministry of AYUSH as a preventive measure. Drinking Shadang paniya powder – a liquid ayurvedic medicine which consists of musta, parpat, usheer, Chandan, udeechya, and nagar – was an example. Another example was taking 5 grams of Agastya harityaki – an ayurvedic medicine commonly used for respiratory problems – twice per day with warm water, samshamani vati 500mg twice per day, 5 grams of trikatu powder (consisting of pippali, marich, and shunthi) and drinking tulasi leaves boiled in water.

Arsenicum album 30 – the homoeopathy medicine derived from arsenic – was suggested to be taken on an empty stomach for three days as a prophylactic medicine against possible Coronavirus infection. Unani practices, such as taking 3 to 5 grams of khamira marwareed per day as a prophylactic measure or preparing a concoction of herbs consisting of Cydonia oblonga, jujube linn, and cordia myxa linn, were the other suggestions. The ministry has stressed that the above are preventive measures and not a treatment advice.“The Ministry of AYUSH is issuing the advisory as preventive measure and not claiming to be a treatment advice for the Coronavirus infection.

Using environmental and engineering controls

These controls address the basic infrastructure of the health care facility and aim to ensure adequate ventilation in all areas in the health care facility, as well as adequate environmental cleaning. Additionally, separation of at least 1 metre should be maintained between all patients. Both spatial separation and adequate ventilation can help reduce the spread of many pathogens in the health care setting. Ensure that cleaning and disinfection procedures are followed consistently and correctly. Cleaning environmental surfaces with water and detergent and applying commonly used hospital disinfectants (such as sodium hypochlorite) is effective and sufficient. Manage laundry, food service utensils and medical waste in accordance with safe routine procedures

Shut down and control of Corona Virus

The Complete shutdown of the economy is very much essential at the intial stages of the detection of corona virus and stage until awareness about the disease is reaching each and every individuals of the country. India's corona virus lockdown worsens access to mental healthcare: 10.6 percent of India's 1.3 billion population suffers from mental health disorders. In 2017, India passed a law that guarantees the right to mental healthcare. But by not making arrangements for patients during the lockdown, the government may be violating its own law. Step by step the government may relax some restrictions and may have partial lock down.

Precautions to be taken to control covid-19

1. Regularly and thoroughly clean your hands with an alcohol-based hand rub or wash them with soap and water. Washing your hands with soap and water or using alcohol-based hand rub kills viruses that may be on your hands.
2. Maintain at least 1 metre distance between yourself and others. When someone coughs, sneezes, or speaks they spray small liquid droplets from their nose or mouth which may contain virus. If you are too close, you can breathe in the droplets, including the COVID-19 virus if the person has the disease.
3. Avoid going to crowded places. Where people come together in crowds, you are more likely to come into close contact with someone that has COIVD-19 and it is more difficult to maintain physical distance of 1 metre .
4. Avoid touching eyes, nose and mouth. Hands touch many surfaces and can pick up viruses. Once contaminated, hands can transfer the virus to your eyes, nose or mouth. From there, the virus can enter your body and infect you.
5. Make sure you, and the people around you, follow good respiratory hygiene. This means covering your mouth and nose with your bent elbow or tissue when you cough or sneeze. Then dispose of the used tissue immediately and wash your hands. Droplets spread virus. By following good respiratory hygiene, you protect the people around you from viruses such as cold, flu and COVID-19.
6. Stay home and self-isolate even with minor symptoms such as cough, headache, mild fever, until you recover. Have someone bring you supplies. If you need to leave your house, wear a mask to avoid infecting others. Avoiding contact with others will protect them from possible COVID-19 and other viruses.
7. If you have a fever, cough and difficulty breathing, seek medical attention, but call by telephone in advance if possible and follow the directions of your local health authority. National and local authorities will have the most up to date information on the situation in your area.
8. Keep up to date on the latest information from trusted sources, such as WHO or your local and national health authorities. Local and national authorities are best placed to advise on what people in your area should be doing to protect themselves.

REFERENCE

1. Economic Times, (17.04.2020): Tamil Nadu is containing Covid-19 well, and it is not following Bhilwara model. The Print. Retrieved 17 April 2020.
2. Economic Times, (19.03.2020): Tamil Nadu's 2nd Coronavirus patient raises community transmission fears". Economic Times. 19 March 2020. Archived from the original on 19 March 2020. Retrieved 19 March 2020.
3. World Health Organisation (WHO), 2020.
4. United Nations environmental program (UNEP), 2020.

***