

PART-1

Knowledge and Attitudes towards COVID 19: A Study

By

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Mentor

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INTRODUCTION

Pandemics are the disease outbreaks that come to be significant due to the unfold of human to-human contact. There were many outbreaks & pandemics recorded in history, consisting of Spanish Flu, Hong Kong Flu, SARS, Ebola and Zika (WHO, 2011b) the most recent being Corona virus. The phrase “Pandemic” is derived from the Greek “pan” which means “all” and demos which means “the humans”, and the phrase normally suggests a significant epidemic of infectious sickness during a period of time. There are some terms - outbreak, epidemic and pandemic which needs to be understood earlier before discussing about the contemporary pandemic.

An outbreak is when an illness takes place in surprising excessive numbers. It might also additionally live in a single location or enlarge extra widely. An outbreak can remain for days or years.

An epidemic is while an infectious sickness spreads quick to extra humans than specialists might expect. It generally impacts a bigger location than an outbreak.

A pandemic is a sickness outbreak that spreads throughout international locations or continents. It impacts more humans and takes more lives than an epidemic.

A pandemic happens on a scale that crosses global boundaries, generally affecting humans on an international scale. A sickness or situation isn't a deadly disease simply due to the fact it's miles significant or kills many humans; it needs to be additionally be infectious. For instance, most cancers are accountable for many deaths but it cannot be considered as a pandemic because it is not infectious or contagious.

The Most Recent Pandemic COVID 19

The most recent pandemic i.e Corona virus or Covid-19 was first found in Wuhan district of China in December 2019. The virus is spread between people by the small droplets produced

while coughing, sneezing and talking. The droplets usually fall to the ground or onto surfaces which becomes the basis of transmission of the virus. People may become infected by touching a contaminated surface and then touching their face. It is most contagious during the first three days from the start of symptoms, although spread is possible even before symptoms appear. Some signs and symptoms of Covid-19 include fever, cough, shortness of breath or breathing difficulties and loss or change to sense of smell or taste. Some groups are more at risk of this disease, including older adults and people with underlying medical concerns, including high blood pressure, heart and lung problems, diabetes, and cancer. No vaccine is currently been available for COVID-19. However, scientists have now replicated the virus. This will permit for early detection and treatment in people who have the virus but do not have any symptoms. There are many guidelines given by the government to combat this virus which is discussed later in this article.

OBJECTIVES:

To review the Government of India guidelines and advisories related to COVID19; and
To study knowledge and attitudes of people towards Covid-19.

LITERATURE REVIEW

TITLE: The Pandemic & its impacts

AUTHOR: W.Qui, S. Rutherford; A. Mao.

LINK: <http://hcs.pitt.edu>

YEAR: 2016-17

The article was studied to suggest that despite the long history that the Pandemic has, it is still to be defined by many medical books. A number of pandemics occurred in human history and it has caused enormous negative impacts all over the world. It also suggests the characteristics of a pandemic which includes wide geographic extension, movement of disease & severity. Health ,economic ,social and security impacts of pandemic are also discussed in the article. The article also discusses about the negative impacts of a pandemic which are serious. When a pandemic occurs, it infects millions of people, cause widespread serious illnesses all over the world and kill thousands of people. Economic loss due to a pandemic involves lack of stability of economy, long term burden and indirect costs.

To avoid the mortality and morbidity and to reduce the economic and social impacts of a pandemic, a effective and efficient emergency response is required but it will be a critical task for the government now and in the future.

2)

TITLE: Emergence of Influenza Virus in Humans

AUTHOR: Fatima S. Dawood, Seema Jain ,Lyn Finelli

LINK: nejm.org

YEAR: 2009

The objective of the study was to find about the swine-origin Influenza A virus which was identified in the United States on April 15 and April 17,2009. Later it was also found in Mexico and Canada. Their specimens were sent to Centres for Disease Control and Prevention for confirmatory testing.

Within 20 days, starting from April 15, approximately 640 cases of S-OIV infection were identified in almost 40 states. The range of ages of people were 3 months to 81 years out of which 60% of patients were of age 18 years or younger. The most commonly present symptoms were fever, cough and sore throat. Some people also had diarrhea and vomiting. Some patients required hospitalization as they showed serious symptoms of influenza, pneumonia and respiratory problems. The disease had a unique genome composition which was not identified previously. It was also a possibility that the number of confirmed cases were far less than the number of cases that had actually occurred.

3)

TITLE: Corona Virus(Covid-19) Study Assessment among Indian Population

AUTHOR: Shivani Pandey, Abhijeet Gupta, Ruchita Bhansali, Simran Balhara, Pooja Katira4, Gabriela Fernandes

LINK: : <https://www.researchgate.net/publication/340871034>

YEAR: 2020

The study was conducted to check the level of awareness among the Indian population regarding Covid-19. According to the results, a good proportion of people became aware about the disease through social media & news. They also had knowledge about the mode of spread of the virus and steps to be taken to prevent it from spreading. It was found that people were not aware about the major age groups this virus affects.

People were aware that by maintaining hygiene and social distancing & by creating awareness about the virus, carelessness amongst people can be reduced and its transmission can be prevented.

METHODOLOGY

Study Respondents:

Educated persons (who are well versed with English language) in the age bracket of 15-60 years having access to internet.

Study Design, sampling and sample size:

The study is descriptive in nature. The trainee had 70 contact numbers and sent the google form to all. A total of 58 (82 per cent approx) filled in responses were received.

Methods and Tools of data collection:

Self-administered questionnaire in online Google form was used. In addition, literature review and Government of India guidelines and advisories related to COVID 19 was also done.

Data Analysis: Data was recorded in Excel sheet and analysed in terms of frequency and percentages.

Ethics related concerns: A voluntary participation was ensured. Consent form was attached before the questionnaire. If the respondents agreed, they could start the filling the tool.

RESULTS

Government guidelines- The Government of India has given many guidelines and advisories for Covid-19 outbreak. It suggests what is mandatory and what is prohibited. The guidelines were given to slow down the spread of Covid-19. According to the guidelines, travelling by air, rail and road was suspended. Educational institutions, industrial and commercial activities, hospitality services, cinema halls and shopping malls to be remain closed. All social and political events & all religious places were also closed till the time the lockdown was in effect.

Various Ministries and Government Organisations also gave some advisories related to Covid-19 which are as follows:

Table 1 : A Snapshot of various Government Guidelines / Advisories related to COVID 19

Date	Title/ subject line	Source organization	Key points
18th May ,2020	Measures to prevent spreading of Covid-19 in	Ministry of Health and Family Welfare	• Physical distancing of minimum 1 meter. • Use of face covers/masks to be mandatory.

	workplace settings	Weblink- https://mohfw.gov.in	• Respiratory etiquettes to be strictly followed • Self-monitoring of health by every individual & reporting any illness at the earliest to the authorities
1 st May,2020	Guidelines for lockdown period	Ministry of Home Affairs Weblink- https://www.mha.gov.in	• Extension of lockdown period for two weeks starting from 4th May,2020. • Guidelines related to red , green and orange zones. • Identification of containment zones.
14 th April,2020	Guidelines to boost immunity amid coronavirus pandemic	Ministry of AYUSH Weblink- https://www.ayush.gov.in	• Boosting immunity by simple practices like drinking warm water, practising yoga and pranayama. • Boosting immunity with the help of Ayurvedic measures.

This section present findings based on 58 respondents who filled the online form completely.

Profile of the Respondents:

The average age of the respondents was 27 years (range 20-52 years). About one-half of the respondents were from the age group of 20-24 years, followed by the age group of 25-29 years (27 per cent) and rest were 30 years or above.

Table 2: Per cent distribution of respondents by their age and sex

Age groups (in completed years)	Number of respondents	Per cent
20-24	29	50
25-29	16	27
30-34	5	9
35-39	5	9
45-49	1	2
50 and above	2	3
Sex of respondents	Number of respondents	Per cent

Men	22	38
Women	36	62.1

. Majority of the people were aware of the term Covid-19. People had knowledge about the mode of transmission of Covid-19 i.e through contact with droplets of saliva or nose discharge of infected persons. 98 percent of the people agreed that hand hygiene can prevent Covid-19. It was also found that 65percent of people had registered on awareness app for Covid-19 for eg. Arogya Setu.. Some people believed that Covid-19 has nothing to do with age.

People also suggested some measures to stop the transmission of Covid-19.

Awareness of COVID 19

According to majority of respondents, common symptoms of Covid-19 were fever, cough, sore throat, shortness of breath and running nose. Less percentage of people were aware of the symptoms like muscle pain, headache and diarrhea .

Table 3:Per cent distribution of respondents on the basis of awareness of symptoms related to Covid-19.

Symptoms	Number of respondents	Percent
Shortness of breath or difficulty breathing	55	95
Fever	53	91
Cough	47	81
Sore throat	47	81
Running nose	24	41.4
Muscle pain	21	36
Headache	18	31
Diarrhea	6	10

No symptoms/ asymptomatic	1	1.7
Others(vomiting, dizziness etc.)	2	3.4

The respondents also gave suggestions about what should be done if they find someone infected in their nearby locality. Their suggestions include informing health authorities, maintaining social distancing, reporting the case to the concerned authorities, following quarantine and isolation under medical supervision.

Government of India has launched an app called Arogya Setu for contact tracing, syndromic mapping and self- assessment of Covid-19. The government also made the use of this app compulsory for all the employees of private and public companies. 100 percent coverage of the app was made compulsory for all the employees and it was ensured by the Head of the organisation.

From the survey it was found that nearly 66 percent of the respondents have registered with Arogya Setu app.

It was also asked whether people of city of respondents following the rules imposed by the government or not and the following responses were recorded-

Table 4-Per cent distribution of the respondents by their perception on following the rules.

Response	Number of respondents	Percent
Yes	20	34.5
No	1	1.7
Upto some extent	36	62.1
Not at all	1	1.7

It was found that people had different attitudes towards Covid-19. More than half of the respondents(55 percent) disagreed to the fact that Covid-19 can only occur in old age whereas only 17percent of respondents were strongly agreeing to this.

Table 5- Per cent distribution of the respondents by their attitudes towards Covid-19:

Response	Number of respondents	Percent
Strongly agree	10	17.2
Agree	2	3.4
Disagree	32	55.2
Strongly disagree	14	24.1

It was also found that 65percent of the total respondents disagreed with the fact that Covid-19 cannot be cured. There was a small percentage of respondents who agreed to this statement.

Table 6- Per cent distribution of the respondents by their attitudes towards Covid-19:

Response	Number of respondents	Percent
Strongly agree	1	1.7
Agree	10	17.2
Disagree	38	65.5
Strongly disagree	9	15.5

People were also asked about the preventive measures that should be taken to stop the transmission of Covid-19. Majority of the respondents suggested measures like covering mouth and nose while coughing, washing hands regularly, avoiding close contact with people and avoiding going to public places like park, market and office. Few people were of the opinion of drinking only treated water and sleeping under mosquito net, eating healthy foods etc.

Table 7-Per cent distribution of the respondents by their knowledge of preventive measures:

Preventive measures	Number of respondents	Percent
Cover your mouth or nose while coughing	57	98.3
Washing hands regularly	54	93.1

Avoid close contact with people	54	93.1
Avoid going to park	47	81
Avoid going to market	43	74.1
Avoid going to office	39	67.2
Drinking only treated water	14	24.1
Sleep under mosquito net	2	3.4
Others(eating healthy foods)	4	6.9

Discussion

From the survey conducted, it was found that people of age group 15 to 60 had knowledge related to Covid-19 and its associated terms i.e quarantine and isolation. They were also aware about the mode of transmission and symptoms of corona virus.

They had the knowledge about the government interventions for Covid-19 and they also gave suggestions for what should be done to stop the transmission of Covid-19.

It was also found that different people had different attitudes towards this virus.

It can be noted that Covid-19 is a pandemic with the features of includes vast geographical extension, movement of disease and its severity. There have been many pandemics in the past and it is found that an effective and immediate response is needed to reduce mortality & morbidity rates and the impacts of a pandemic economically and socially.

Conclusion

It can be concluded that many pandemics have occurred in the past. Covid-19 is the most recent pandemic. Survey has been conducted to know about the knowledge and attitudes of people about Covid-19. It can be concluded that people are aware about the current situation of this disease in India and they are taking necessary precautions to stop its transmission.

Government of India has also given certain guidelines and advisories to fight this pandemic situation.

References

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Learning From Past Pandemics- David Heymann, Howard Markel,2007

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Ministry of Health and Family Welfare- 18th May 2020

www.mohfw.gov.in

PART-2

ONLINE COURSE REPORT

A)ESSENTIALS OF GLOBAL HEALTH

Name-Arpita Kapoor

Roll no.- 1045

Course Name- Essentials of Global Health

Website-Coursera

Number of hours-21 hours

Number of Credit-

Duration-10 weeks

Course Instructor-Richard Skolnik

Objectives of the course are-

To learn about the term global health and issues related to global health.

To understand the key health disparities especially related to low-income and low and middle-income countries.

ABOUT THE COURSE-

Module 1-

In module 1, we studied about the following:

We learnt about the growth in the field of global health since last few decades & some emerging agendas related to global health.

Global Health:

It can be defined as the health of population in a global context. Global Health is considered to be an area of study, research and practice.

Determinants of health are:

- Individual characteristics like genetic make-up, sex, age.
- Access to healthcare facilities.
- Healthy Behavior and coping skills.
- Employment and working conditions.
- Healthy child development.

Social Determinants:

Social Determinants can be defined as the conditions in which people born, grow, work, live and age, where the broad set of systems shapes the conditions of daily life.

Module 2-

There are certain key health indicators which are important to study in Global Health. These are:

Life expectancy at birth: It refers to the average number of years a new born baby is expected to live assuming that the mortality patterns at the time of the birth remains same in the future.

Maternal Mortality Ratio(MMR): It is the annual number of female deaths per 100,000 live births from any cause related to or aggravated by pregnancy or its management. It does not include death by accidental or incidental causes.

Neonatal Mortality Rate. It is defined as a death during the first 28 days of life (0-27 days) per thousand live births.

Infant Mortality Rate(IMR): It is the number of deaths per 1,000 live births of children under the age of one year.

From the module, we found that Sub-Saharan Africa & South Asia have higher rates of all the above factors.

Module 3-

In this module, we studied about the Burden of Disease i.e The DALY.

DALY refers to Disability Adjusted Life Year. It can be calculated as:

Years of life lost due to premature death + Years lived with disability = DALY

We also studied that Burden of disease can be classified into 3 categories:

Group 1- Communicable, maternal, neonatal and nutritional conditions

Group 2- Non- communicable diseases

Group 3- Injuries

We also noticed that there has been epidemiological transition in the past i.e movement of deaths that are caused by communicable diseases to the deaths that are caused by non-communicable diseases.

Module 4-

Value for money in Global Health-

Cost-effectiveness is very important in the field of healthcare. It refers to comparing cost of investment with the amount of health that can be purchased with that investment.

Health system: All the activities whose primary purpose is to promote, restore and maintain health.

Goals of a Health System:

- Improved health
- Responsiveness
- Social and financial risk protection
- Improved efficiency

Alma Ata Conference and Primary Care:

- Be essential and socially acceptable.
- Provide prevention, promotion, curative and rehabilitation services.

Module 5-

Health Disparities-

Health disparities are the differences in health that are closely related to social & economic disadvantages.

Factors related to Health Disparities:

- Social and economic status
- Health status
- Gender
- Religion
- Location
- Occupation

Module 6-

In this module, we studied about the importance of environmental factors to the burden of disease and the possible impacts of climate change on Burden of Disease.

Environmental Health:

It comprises those aspects of human health which include quality of life that are determined by physical, chemical, biological, social and psychosocial factors in the environment.

Some Environmental Risk Factors:

There are certain risk factors for the environment. These are bad sanitation and unimproved water facilities, pollution of air and household etc.

We also learnt about the Nutrition and Global Health.

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We also discussed causes of malnutrition which are:

- Shortage of food and improper utilization
- Prevention of disease
- Quality of maternal and child care

Module 7-

This module will cover discussions of Women's health and Child's health:

Importance of Women's Health:

It has been noticed that women are victims of discrimination and they face many unique health problems. There has been inequality in the health status of men and women.

Maintaining proper health of women is also considered important because investing in the education and health of women leads to overall social & economic development.

Key Social Determinants for Women's Health:

Enhance opportunities for universal schooling of appropriate quality for all girls, at least through secondary school.

Implement policies that enhance the status of women and reduce discrimination against them.

Enable increased modern sector employment for women.

Improve safety and security for women.

Child's Health:

Causes of Neonatal Death:

- Preterm Birth Complications
- Injuries
- Diarrheal diseases
- Tetanus
- Acute lower respiratory infection

Module 8:

In this module, we learnt about the different critical causes of illness and death.

1) HIV:

Routes of HIV transmission:

HIV can be transmitted through various ways which includes unprotected sex, mother-child transmission through breastfeeding & by blood.

Consequences of HIV:

A compromised immune system, related diseases and death. Its indirect consequences include creation of orphans and economic loss to individual and families.

2) Tuberculosis (TB):

It is found that almost one third population of the world has latent TB (which is not infectious). But they can develop active TB if their immunity compromises.

We also learnt some new terms:

Drug Resistance: Occurs when microorganisms change in ways that render the medications used to cure the infections they cause ineffective.

Multidrug- Resistant TB: It is resistant to isoniazid with or without showing resistance to any other first line drugs.

3) Non-Communicable Diseases:

NCD's constitute the largest share of deaths and DALY's across the world, except for Sub-Saharan Africa.

Many of the risk factors for NCDs are related to lifestyles.

The share of deaths by NCD's is growing in low & middle income countries of the world.

4) Mental Health:

There are mainly four mental disorders which constitute the major share in the burden of disease of mental disorders.

Bipolar disorder: A serious mood disorder characterised by swings of mania and depression.

Depression: A mental state characterised by feelings of sadness, loneliness and despair.

Panic Disorder: An anxiety disorder which involves attacks of intense anxiety.

Schizophrenia: A mental illness characterised by hallucinations, delusions, & changes in personality.

5)Injuries:

Injuries are said to be any act that damages, harms, or hurts & causes unintentional or intentional damage to the body.

Largest causes of injuries are:

- Road injuries
- Poisonings
- Falls
- Fires
- Drowning

B)CONTACT TRACING

Name-Arpita Kapoor

Roll no.- 1045

Course Name- Covid-19 Contact Tracing

Website-Coursera

Number of hours- 6 hours

Course Instructor-Emily Gurley, Johns Hopkins Bloomberg School of Public Health

Objectives of the course are-

- To gain knowledge about SARS-CoV-2, natural history, incubation period, infectious period and its transmission.
- To understand contact tracing and its implementation.

ABOUT THE COURSE:

The course effectively helps to learn about the need for contact tracing across the country between the Covid-19 crisis. The course covers discussions for contact tracing, issues faced in contact tracing efforts and the strategies to overcome the issues.

Methodology:

Lectures, reading materials, video representing the practical setting were the methods adopted for teaching the course.

Module	Objective	Content	Key learnings
Basics of Covid-19	To understand the meaning of Corona virus, origin of the coronavirus, its signs& symptoms Its transmission and diagnosis.	1.Introduction to SARS-CoV-2 virus . 2.Its natural history, Diagnosis, Transmission.	1.SARS-CoV-2 are large group of viruses that can infect wide range of mammals and birds and which has caused the pandemic worldwide. As of now the origin has been found to be bats and has jumped species. 2. Some people develop signs and symptoms; some people are completely asymptomatic. The common signs and symptoms are fever, fatigue, chills, myalgia, cough, loss of taste or smell, difficulty breathing, sore throat. Severe cases have chest pain, shortness of breath, bluish face or lips like symptoms. The incubation period is 2 to 14 days. 3.Mainly existing medical conditions, co-morbidities and old age (>65 years of age) are found at higher risk. 4} The main mode of transmission is via

			respiratory droplets from coughing, sneezing or meeting surfaces infected.
Basics of Contact Tracing for Covid-19	To discuss contact tracing methods. To identify infectious period and the terms quarantine and isolation.	1.Contact Tracing for Covid-19 cases. 2.Calculating isolation and Quarantine duration. 3.Identifying high risk situations for Covid-19.	1. how to perform contact tracing task. 2. how to assign quarantine and isolation period. 3.Incubation period refers to the time when someone is infected before the symptoms appear. 4. Infectious period refers to the time during which someone infected can spread the virus to other people.
Steps to find cases and applying Contact Tracing	To trace the person who came in close contact with a COVID-19 infected person. Identify the need for social support to be given to the person and following isolation and quarantine rules	Steps to investigate and to give demo of how to provide social support.	1.How to tackle the situation once the case identified and how to approach their contacts. 2. Once quarantine and isolation advised, how the person should be taken care of.
Ethics of Contact Tracing and Technological tools	Maintaining privacy and autonomy. Right selection of technological tools.	1.Importance of ethics while performing contact tracing. 2.Reasons for using technology for contact tracing and examples of technology used for each step	1.Ethical considerations must be taken into account such that privacy and autonomy of the patients must be guarded well in order to avoid any sorts of conflicts. 2.Right selection technology gives better picture to the health professional which helps to provide the best care to the patients.
Skills for effective communication	How to have effective communication with cases and contacts Describe and overcome common difficulties with case and contact	1.Importance of rapport. effective communication to gain more precise information.	1.Rapport is needed in contact tracing as it enables us to ask and get accurate information from the case or contact, educate regarding covid-19 and persuasively ask about isolation and quarantine. 2.Points to be kept in mind for communication part:

	investigation and tracing. To understand body language signs to judge the situation of cases or contacts.	2.Question types that should be used. 3.Importance of Active listening.	• Be confident, direct and reassuring. • Use simple words • One question or message at one time for better clarity and flow of conversation.
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