

Paradigm Shift in Health of India

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Abstract

Indian society is undergoing a transformation towards modernization. With the increased literacy, health awareness, facilities and its utilization has increased for example, child being born in hospitals has increased over decades in Gujarat state. The vaccination drive has been accepted positively by people. Peoples' response has been phenomenal. The modernization has new ideas of health, hygiene and welfare including some mechanization, measurement and awareness of standards. Pharma technology has responded positively for change that is global. Inculcating health awareness at school level will make a big difference for 21st century of India.

Key words: Paradigm shift, Health awareness, Modernization, Vaccination

Introduction

Teaching profession has been affected by the quality of teachers. Similarly, teachers' quality in health education has deteriorated over decades. In the decades of fifties and sixties many colleges and universities could get excellent and dedicated teachers. Afterwards working conditions of teachers improved and attempts were made so that they were treated at par with other learned professionals in the public sector. But the teaching personnel have to be drawn from the same pool of human resources that were available to the other public services and private sectors. The competition built into the system became more serious for more teachers' positions were filled with unwilling persons, and who were industrious but lack urgent instinctual needs. (Ghosh. 2007).This condition was reviewed by the earlier teachers' commissions. The University Grants Commission, New Delhi specified the conditions of recruitment and qualifications needed for teachers in different categories (UGC report, New Delhi 2010). The teacher's eligibility test (NET) examination became almost compulsory after 1990's. With the result, there seem to be some changes in the quality of teachers. In the year 2007, a committee was constituted to look into the need for more colleges and universities in India. Prof. Pushpa Bhargava was made the chairperson. He made crucial scrutiny of the growing situation and development in the country and suggested that India could think in terms of establishing around 1000 universities (including medical universities)

and more colleges in the rural, semi urban and urban areas considering the growing young population of India. The gross enrolment ratio reported recently in the Annual report 2018-2019 of the Ministry of Human resources development, New Delhi was 25 percent. This increasing ratio is a good trend that needs sustenance and support for diversified, good quality teaching and learning environments in various modes.

The National Family Health Survey-5 recently reported as on 2018-2020 the youth population of the total population constitutes around 40 percent. This seems to be growing population and progressive in terms of views and development. They are going to constitute the quality of the nation and an asset to build the country. The teachers could be identified early and tested and provided appropriate training to nurture the talent and increase the quality in terms of preparedness for the change. National Council for Teacher Education, New Delhi has contemplated introducing 3 years and four years integrated teacher education after post-secondary education of the students. The two-year teacher education that was introduced in the year 2014 continues to be compulsory throughout the country and they constitute the general pool of teachers for various levels such as elementary, secondary, higher secondary and selectively higher education. At present, an estimate of need of teachers is indicated as 1.2 million. This demand could be met when preparation of teachers is properly guarded, guided and promoted for quality. The rise of the technology and improvement in different fields has made education to change its emphasis for integrating technology into education. Similarly, health education also selectively, got integrated into the technology resulting in multiple modes of instruction such as online teaching and learning, hybrid teaching, teaching through broadcast mode etc. These modes became more prominent for the covid-19 restricted the face-to-face teaching and learning in medical colleges and general teacher education colleges. The spread of covid-19, and later omicron has been uneven and it has resulted in more disturbance and distress for people. The lockdown, closing of colleges and universities for shorter periods have become common.

There is a need in the current situation, to consider health and health sector as a priority area of investment, service and training for increasing demand and supply chain of the nation. There is growing need of more physicians, surgeons, health educators, nurses, pharmacists, Chemists and other staff properly trained in the new technology and changing environment.

For many decades, the oxygen cylinders were handled by Anaesthesiologists and physicians in the operation theatre. In the present condition, more oxygen cylinders are needed and as a

consequence more chemists are needed to produce, store, supply and supplement medical oxygen as an urgent need. Small devices are available in the market to supplement oxygen to act as first aid before the patient reaches the hospital. There is a small device that measures the oxygen level in the body in few minutes that helps the medical personnel to take immediate action to support and supplement oxygen and glucose for the sustenance of the body. There are nebulizers that support the patients with breathing problem and medicine could be administered with the help of nebulizer and other devices could be modified to support respiration with the help of oxygen. The ventilators are needed in larger number as the cases of patients with breathing problem of the upper respiratory tract are more in number.

The emergency care units have to be multiplied in different hospitals -both government and private to meet the demand and service. Earlier the emergency unit was more viewed as required for caring of the people who have met with road accident, fire accident, water drowning etc. In the changed paradigm, the emergency unit has to be seen as the first unit of admitting, testing, treating and service through proper treatment in teams for serious cases of the health problems. The emergency medicine must be available with the hospital as well as in the nearby market for immediate use.

The need for Nutritionists

Many big hospitals have appointed properly trained nutritionists to look into the quality of nutrition in the hospital, testing, and sustain health of patients with relevant changes and appropriate recommendations. The number of nutritionists have to be increased by training such that at least each hospital with 500 beds has a nutritionist in service. The nutritionists are in great demand and hence they may be allowed to visit one or two hospitals in a week to fulfil their workload and more quality service.

Bio-medical services

The people trained in biomedical care were less in number. In the present circumstances, training facilities have to be increased in the country in the private sector and inhouse training in hospitals need to be provided for junior doctors in service. The service of bio-medics would be crucial in testing the various medical samples, testing them using standard procedures, classifying and giving reports at the shortest periods of time possible. The bio-medical technology available in the country has enabled many medical people to be trained in

DNA testing, DNA sequencing and identifying diseases. The DNA modification with the hybridoma technology may be used selectively to improve the situation. On this count one may consult the molecular biologist and senior doctors who have handled such cases. The medical imaging facilities must be available in the hospital for easy and quick service and diagnosis. The portable devices will give preliminary reports and image for the initial diagnosis and further imaging could be carried out in the imaging centres. The online supply of serum for testing may be attempted for considering its feasibility. The margin between various forms of medicine and practitioners have become thin due to more demand, integration of various modes and technology requirements in a given situation. Although, more people prefer allopathy for their treatment (including surgery) an equally growing number believe in Ayurveda to practice in Chikitsa Kendra's. Mostly drawing their clientele from rural areas, semi urban areas. There is a co-existence of allopathy and Ayurveda clinics, polyclinics, hospitals, staff in urban areas. The homeopathy, unani and naturopathy have selected areas and population to cater to in a more sustained way (Mani, R.S.2000).

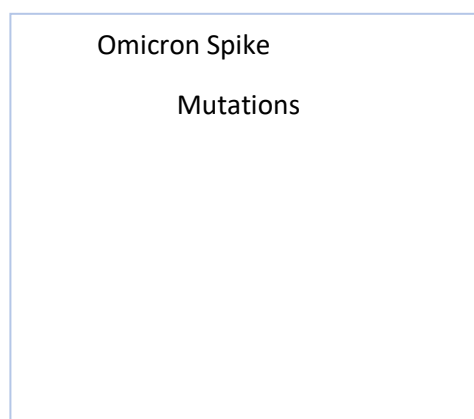
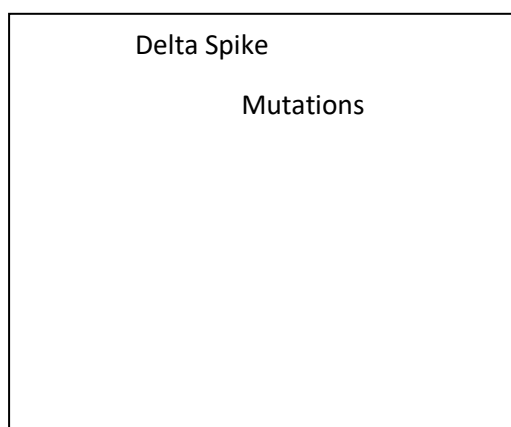
Covid-19 public health review document prepared and released on January 9th, 2022 by the Hon. Prime minister of India has tried to collect and collate information on infrastructure, facilities in health such as number of ventilators available, the number of oxygen plants, and their utilization, the number of people trained to use medical equipment, the number of beds available in hospitals and physicians, nurses and other staff. This provides a benchmark data for health planning and preparing road map for health safety of India.

From the year 2018-19 to 2021, India has seen two waves of the covid-19 delta variety. In the year 2021 and 2022 the third wave has begun to attack the population with more vigour. The omicron virus under goes 50 mutation and creates a situation of spread faster and easier. The treatment is available for the virus attack. The preparation made for the first and second wave with massive vaccination drive throughout the country of the population above 20 years up to population 60 plus has made a big difference in terms of health. However, the adolescents and post adolescents i.e., zero to 19 years of age people need more vaccination and it has started recently with the administration of co vaccine to the age group 15 years to 18 years. The repeated appearance of the disease is treated with a booster dose. The elderly population is considered susceptible to diseases and therefore people with comorbidities above the age of 60 years are administered covi shield on a priority basis. The Bharat Biotech company in India is able to supply the needed vaccine at a given time.

Corona-19 and its Mutations

Corona virus-19 emerged as a laboratory virus of the Chinese Wuhan laboratory in Wuhan province of China. It spread faster in the countries such as India, United States of America, Spain, Britain, and Japan. China's Wuhan laboratory sanctioned nearly 64 projects to scholars to work on it in detail. The information gathered was very useful to China. The Corona virus-19 Delta variant was very prominent in the American soil.

Out of 13 variants of Corona-19 five have been Virus of Concern including Delta variant that showed devastating effect as second wave in Northern India. It was detected in May 2020 and further studied to once again to detect the same in Nov 2020. Delta variant has 10 mutations. In comparison the Omicron variant is stronger with 50 mutations twice as much as the Delta. Of them 32 are in spike protein. The part that most vaccines use to identify the virus. The spike protein uses to enter human cells has 10 mutations in omicron as against just two in Delta variant. WHO has declared Omicron as the Virus of Concern. It spreads faster than any other



known variant of the Corona-19.

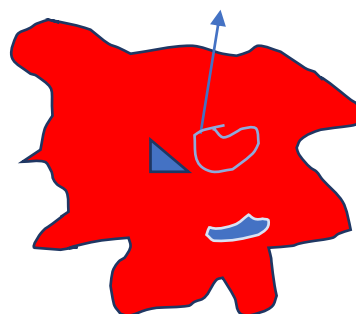
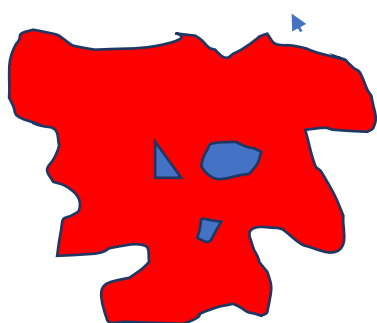


Figure NO. 1 showing the Delta Variant Figure NO.2 showing the Omicron Variant

Omicron has many more mutations than Delta

In November 2019 the Carona showed mutation and released the Alpha variant in September 2020 in United Kingdom. Further, the Carona-19 has mutated and showed up as Delta variant. In almost one year period the Carona-19 was detected in South Africa on November 2021 in a school. Majority of the children suffered heavy loss. It gradually spread to other countries in the world. At present, Omicron virus is found in around 40 countries.

Noted virologist Jameel Shahid explains “It also has a cluster of mutations...associated with entry into cells. More efficient entry often translates into more virus’s production and increased transmissibility”. It is six times more than Delta in terms of transmission Angelique Coetzee, a south African doctor identified this virus and studied the symptoms. The symptoms are mild. It shows the symptoms as the body ache, with head ache, scratchy throat. It has attacked the younger population showing mild symptoms. The hospitalization takes a longer time for cure. It seems the number of vaccines already administered has very little effect on the Omicron. In South Africa, the already administered vaccines were J&J, Pfizer, BioNTech and Oxford AstraZeneca. Jameel says that the vaccine may allow it to resist neutralizing antibodies developed following and infection or vaccination and therapeutic monoclonal antibodies. However, he adds that while they might prove less effective at blocking infection, “It is unlikely that the vaccine becomes useless “World Health Organization has developed in the past two years such as corticosteroids and IL6 receptor blockers will work for the severe covid patients but the other treatment methods effectiveness needs to be ascertained for the recovery of the patient.

Bio-medical people have created various medical samples, classifying, and giving reports at the shortest time possible. The Serological study group from ICMR studied some cohorts in the first phase. This DNA sequencing and identifying diseases. The DNA modification with hybridoma technology may be used selectively to improve the situation. The probable sites are CD4 and CD9. The online supply of serum for testing may be attempted for considering the feasibility.

The margin between various forms of medicine and practitioners have become thin due to more demand and integration of various modes and technology requirements in a given situation. Although, more people prefer allopathy for their treatment (including surgery), an

equally growing number believe in Ayurveda to practice in Chikitsa Kendra's. Mostly drawing their clientele from rural areas. There is a co-existence of Allopathy and Ayurveda clinics and hospitals, staff in urban areas. Some of them seem to claim specialized in Skeletal problems. The homeopathy, unani and naturopathy have selected areas and population to cater to in a more sustained way.

The Covid-19 Public health review document prepared and released on January 10th 2022 by the Hon. Prime Minister tries to collect and collate information on infrastructure, facilities in health such as number of ventilators available, the number of oxygen plants, and their utilization, the number of people trained to use medical equipment, the number of beds available in hospitals and Physicians, nurses and other staff. This provides a benchmark data for health planning and preparing roadmap for health safety of India.

The vaccination programme started in India on January 16th 2021. In these two vaccines were approved by the central drug's standard control organization. The entire vaccine procurement was in the hands of the central government. The state governments may participate and share a few percentages of vaccines for administration. The two vaccines that were approved were: One, Covishield (It was developed initially in Oxford and called also as Oxford-Astra Zeneca vaccine and the second vaccine is covaxin (It was developed by Bharat Biotech in India). It was produced by Gamaleya Research Institute of Epidemiology and Microbiology in Russia in collaboration with Dr. Reddy's Laboratories (Subramanian, 2021). These vaccines were administered throughout India from 18 years old to 60 and above age group, all of them have received single dose. The 60 years and above have received two doses and nine months have already passed and they are ready for the third dose (booster dose). The administration of the Booster dose (initially) started in the month of January, 2022. The gap between the first and second dose was 84 days. The government of India constituted a national expert group on vaccine administration for Covid-19 (NEGVAC) that consists of experts from various specialities including Oncology, Nephrology, Pulmonology, and Cardiology. It provided online training called 'Integrated Government Online training and the Digital infrastructure for Knowledge Sharing' (DIKSHA) for capacity building of the frontline workers. The entire administration of vaccine was monitored by the Ministry of Health and Family Welfare, GOI, New Delhi the registration was accepted individually through mobile. The messages were sent about the date of administration, centre and type of vaccine administered and the dosage. The ministry provided certificate of vaccination digitally for two doses. The co-vaccine was administered

for the younger group i.e., 18 years to 45 years. The vaccine programme continues as covaxine for the age group 15 years to 18 years. After the administration of Covi shield two doses and nine months have passed for the age group 60 and above, considering the comorbidities (sometimes testing) Covaxine is administered as booster dose initially. However, all the people in this age group have received the jab irrespective of the other diseases prevailing or healthy person. The reason for this measure is that the age group 60 and above were thought to be susceptible for various diseases including corona-19 or omicron's people suffering from fungus (white, black or yellow etc) were also considered for the vaccine. This vaccine is supposed to protect individuals from many diseases. In the training programme for vaccination midwives and auxiliary nurse midwives were not included. However, they provided service in most of the centres on the calling.

The health awareness needs to be based on three principles that are bundling of health services; local stake holders' engagement and putting in place the accountability mechanisms offering services such as health check-ups: free medicines etc, At the same time engaging the community leaders to spread awareness and lastly ensuring that authentic data is made available regarding the inoculation programme. To remove and overcome the vaccine hesitancy in the rural areas and hard to reach population is the challenging task of the ministry of health, central and state governments and learned population of the country. There are several non-governmental agencies, religious organizations such as Catholic Association, Vadodara have extended their hand in administration of the vaccines to many people in Vadodara. There services need to be appreciated and acknowledged. At the national level a accrediting body was created to certify and qualify the counsellors for health, mental health and other problems of children. This organization was called as Rehabilitation Council of India, New Delhi. There is a need to develop a national database for the health workers, medical professionals, psychologists and psychiatrists and accredited pharmacists. The creation of a health channel at the national level to continuously provide scientific development on these matters, create awareness, innovate, ideate and spread the message of health, service and peace for harmony and growth. The gross domestic product of India had come down to 1.8 percent. In the recent past year GDP is gradually improving. The central and state governments need to encourage entrepreneurship, start-ups, innovations, research linkages for growth through encouraging research organization for more social participation.

The first wave and after the vaccination only 21% of the population had developed antibodies as per the findings of the Indian Council for Medical Research (Lodha and Kabra, 2021). To

avoid similar situation there is a need for caution approach of spreading awareness by involving about Covid protocol and encouraging people to take vaccination specially in the rural areas. The edicts of emperor Ashoka and ambassadors of peace spread Buddha's teachings in the world. This method of spreading awareness by word of mouth, writing, public exhibition, legislation, commandments for health will definitely ensure health for all. In practice the role of Accredited Social Health Activists (ASHA) who work as a governmental representative under the National Rural Health Mission (NRHM) their role is to create awareness of health and the social determinants of health and it should encourage local communities to make the 'right choice' when an aim to increase utilization of existing rural health services that came into being in the year 2004. The aim is to strengthen immunization in children by developing partnerships, encouraging participation, engagement and decentralization. ASHA workers are providing accessible, affordable and quality health care to vulnerable rural population is of utmost importance (Agarwal et.al 2019).

The total number of people vaccinated is increasing faster and it is for the first time, a big democracy like India has gone for a marathon vaccination drive. Table NO. 1 shows the population in India vaccinated.



18+ Population : 1 st Dose 866,230600(1,995,852 in the last 24 hours)

18+ Population :2 nd Dose 28274,847(1,933,743 in the last 24 hours)

15-18 Years Population 1 st Dose 28,274,847(1,933,743 in the last 24 hours)


Table No.1 Showing population in India vaccinated

Precaution dose 1,885,715 (879,470 in last 24 hours)

Total doses since Jan 16,2021 1,538,008200(8526,2400 in the last 24 hours)

As on Jan 12,2022 at 7 a.m

Source : Ministry of Health,FamilyWelfare,GOI, New Delhi

The measure and strategies followed by ael to solve the problem of Covid and Vaccinate its people is commendable. There is a need to adopt, improvise and innovate approaches for the delivery and create a sustainable system that is not dependent on quick fix measures to solve health problems. The impending and bigger problem to face for India would be to solve the problems of mental health and drugs needed for the same. A large population across the different age groups will have mental health problems to varying degrees of magnitude. This problem needs to be identified, investigated, classified and characterised for diagnosis by trained counsellors from Psychology and Psychiatry in medical colleges, Department of Psychology in Universities and colleges of India. The community health is a serious problem of the society that needs to be handled properly by NGO's, religious organizations, associations with the help of trained counsellors and medical practitioners.

The total population of India is approximately 130 crores. The other estimate current is one billion plus. The rate at which vaccination is administered is rather fast and wide. The total vaccination programme of 2 doses would complete by June 2022. This a battle fought in historic ways that tries to protect India against diseases.

The first dose of vaccine provided anti bodies of around 21 percent. This was a check for the spread along with lockdowns systematically imposed by most of the states in India. The Covid-19 has many variants and the mutation taking place is faster and effective. The covid-19 delta variant has ten mutations as compared to omicron has 50 mutations. The severity has increased with each variant. The spread also has increased. Already there has been three

waves of virus battering India with strong force of injury and elimination. Close to 57.5 million people are eligible for the third shot. Among them 27.5 million people are workers and 20 million frontline personnel. Eligibility can be checked on CoWIN and prior consultation with doctors is advisable. Table No.2 vaccine list approved for emergency use authorization (EUA) by India

<p>Corbevax Biological E Limited Protein Unit One country has Approved</p>	<p>Sputnik V Gameleya Non replicating Viral 74 Countries have approved</p>	<p>Covishield Serum Institute of India Non replicating viral factor Approved in 47 countries</p>
<p>mRNA 1273 Moderna RNA 85 countries have approved</p>	<p>AD.26 Cov 2.5 Janssen (Johnson and Johnson) Non replicating Viral factor 100 countries have approved</p>	<p>CoVax Serum Institute of India Protein sub unit 3 countries have approved</p>
<p>Zycov D Zydu Cadila DNA 3 Countries have Approved</p>	<p>AZD122 Oxford Astra Zeneca Non replicating Viral factor 184 countries have approved</p>	<p>Covaxin Bharat Bio Tech Viral factor Inactivated 13 Countries have approved</p>

Table No.2 vaccine list India (EUA)

The vaccine Pfizer and Moderna are under testing. Moderna is extensively used in United States of America. U.S. Army researchers have developed super vaccine that can combat all variants of covid-19 with all its mutations. It was first detected for SARS-CoV1 in 2003. It was known as the spike ferritin nano particle (SpFN) vaccine. It creates strong binding

antibody responses against the receptor-binding domain and spike proteins of all variants of concern. The US Army strategy is to develop a 'Pan Corona Virus' Vaccine technology that could potentially offer safe, effective and durable protection against multiple corona virus stains and species.

The recent study by Asian Institute of Gastroenterology (AIG) confirms that co-vaccine and covi shield are able to combat with covid-19 more effectively. It is said that spike protein neutralizing antibodies kill the virus and reduce overall infectivity. This is definitely a shield against disease but continuous exposure to bad environment (poor air quality and water) may ensure further infection (Menon, A.K. India Today,2022). From among the approved vaccines as shown in the table .2 the widely and extensively used vaccines in India are Covi shield and covaxin.Zydus and Cadila have developed vaccines in three doses. It promises to deliver million of doses in two years time.Further, it does not have injecting system.Besides the vaccines, Molnupiravir-an anti-viral that its makers claim that it can help in moderate covid problem. It is approved but the Indian Council of Medical Research says that the drug is unsafe. However, in order to meet the increasing demand, manufacturers are trying to find new spaces for production such as Integrated Vaccine Complex at Chengalpattu in Tamil Nādu.

The measure and strategies followed by Israel to solve the problem of Covid and vaccinate its people is commendable. There is a need to adopt, improvise and innovate approaches for the delivery and create a sustainable system that is not dependent on quick fix measures to solve health problems. The impending and bigger problem to face for India would be to solve the problems of mental health and drugs needed for the same. A large population across the different age groups will have mental health problems to varying degrees of magnitude. This problem needs to be identified, classified and characterized for diagnosis by trained counsellors from Psychology and Psychiatry in medical colleges, Department of Psychology in Universities and colleges.

Community health is a serious problem of the society that needs to be handled properly by NGO's, religious associations with the help of trained counsellors and medical practitioners. At the national level an accrediting body is created to certify and quality the counsellors for health, mental health and education and other problems of children. It is called Rehabilitation Council of India, New Delhi. There is a need to develop a national data base for the health workers, medical professionals, psychologists and psychiatrists and accredited pharmacists.

The creation of a health channel at the national level to continuously provide scientific development on these matters, create awareness, innovate, ideate and spread the message of health and service. Peace and harmony for growth and development. The gross domestic product of India has come down to 1.8 percent in the previous two years of covid. In the recent past year GDP is gradually improving. The central and state governments need to encourage entrepreneurship, start-ups, innovations, research linkages for growth through encouraging research organization for more social participation.

Omicron Variant:

It started spreading in the globe from December 2019. Omicron has similar characteristics as that of other variants of Corona Virus such as Alpha, Beta, Gamma and Delta. While Delta has affected most part of the India and it has 10 to 18 mutations. The Omicron has 50 mutations, with more capacity for injury and death. It has added 1.7 million case loads globally. In India it has spread four times faster than Delta variant. R value (Reproductive value of a person could infect others) for India stands as 2.69. Only 13.29 percent on January 2022 have been tested. The figure was more than double the WHO recommended containment threshold of 5 percent. Table NO.3 shows the Omicron cases in India.

Table No.3 Showing the Omicron cases in India

States	Active cases 7 days ago	Active cases as on January 10 th 2022
Delhi	8397	60,733
Rajasthan	8491	19,467
Maharashtra	52,422	205973
Kerala	19,359	35,501
Karnataka	11,345	49,631
TamilNadu	12,412	51,335
West Bengal	20,186	78,111
Total	1,32,612	500,851

Source, India Today, XLVII(4), January 18-24,2022

The number of cases have almost become four times in seven days. This rate of infection is going to create more problems. One way to check this problem is identify the patients, test

them, quarantine such that no further infection is possible. The cascading model could be used to search for the number of people infected by each individual suffering from omicron. A university in Hong Kong suggests that Omicron is up to 70 times more transmissible than its delta variant. In the US analysis by experts at the Centre for Disease Control (CDC) has shown that Omicron accounted for over half of all the new cases in a little more than a months' time since the strain was first detected. Dr. Rakesh Mishra, Director, Tata Institute of Genetics and Society in Bengaluru observes that "There are specific mutations in the spike protein that make it easier for the virus to enter human cells. Table No.4 shows the symptoms that appear after infection.

Table NO.4

Covid virus Variant	Symptoms to appear after infection
Alpha Variant	6 days
Delta variant	4 days
Omicron variant	3 days

showing
symptoms
appearing
after infection

This shows that the incubation period for Omicron is far less than the other variants and thus more infectious in nature. Dr. Sandeep Budhiraja, Medical Director of Max Super Speciality Hospitals, Saket, Delhi observes that 'It is critical to get tested as soon as symptoms appear as this is the time when a person is also more likely to infect others. The omicron does not have any specific age group for infection and at the same time, it has affected those who have been vaccinated as well as the people who need to be vaccinated. In United States, the age affected by omicron is reported as 18 to 39 years. However, in India the current recovery rate is 96.36 percent and fatality rates are too small in comparison to other variants such as delta. The Omicron shows symptoms such as cold, fatigue, nasal congestion and runny nose. An ongoing study by Kings College, London also lists nausea, loss of appetite, and night sweats as symptoms. The testing between 3rd and 5th day on the onset of disease will show up the case bitterer-PCR is the most used test for testing for Omicron also. In Delhi, the RT-PCR test is priced for Rs 300/- per test and in Vadodara one of the health centres, The Maharaja Sayajirao University of Baroda, Vadodara conducts the test for Rs. 400- per test.

T-cells and white blood corpuscles are the fighters that recognize the spike and produce antibodies enough to stop infection in the upper respiratory tract. Thus, the lower respiratory

tract does not get affected. The common symptoms that can last from 4 to 12 weeks after acute infection are head ache, fatigue, disturbed sleep, lack of concentration and body pain. Those with more severe covid have had sudden blood clots, strokes, heart attacks and even kidney failure. The antigen test must be followed with RT-PCR for confirmation could be better to test in a clinic or hospital than at home. The home testing PCR units may not give the correct results.

The Ministry of Health and Family Welfare, New Delhi have taken two drugs out of the list in September 2021. They are: hydroxychloroquine and ivermectin. Patients are recommended to take paracetamol when fever is observed by measuring with the thermometer. Inhaling Budesomide is recommended when the symptoms persist to occur for 5 days. The care needs to be taken to see the oxygen level by using the oximeter. Patients have to be in conscious state and for this purpose they need to be given glucose regularly. The guidelines are provided for the use of steroids, remdesivir and tocilizumab. Mucor mycosis or Black fungus was also a common side effect of steroid use.

Omicron infections are asymptomatic, and with the lightning-fast speed at which the virus multiplies in a given population. The wave is going to be for a shorter duration than the previous one. Bruhat Bengaluru MahanagarPalike, Bengaluru quarantined the patients for a few days (around 5 to 7 days or more) and administered the required medicine. Further, a large number of volunteers were requested to interview these patients and advise them to see their doctors. Hard immunity is the point at which a population acquires protection against disease either through vaccination or by naturally acquired immunity. Post delta wave, ICMR's fourth sero survey noted that almost 86 percent of Indians had antibodies against the strain. Yet it was not able to halt the third wave. The unrestricted spread of omicron will give more opportunities to mutate and cause perhaps more harm to the immunity and health of individual.

The delta strain, for instance, had three mutations L452R, P681R and E484Q which studies show, helped the virus replicate faster and evade antibodies more effectively, increasing its chances to trigger pneumonia and lung infection compared to the earlier variant alpha. Omicron does not have these mutations. However, N501Y a mutation that occurs in omicron shows similarities with alpha, beta, gamma and delta that increases the transmissibility and facilitate immune escape. Omicron has three other mutations that are known to increase its transmissibility (India Today, Jan 22, 2022).

There is a chance that in the unvaccinated population some variant may thrive to exist. This calls for caution. The defence of the nation. The defence of the body is as important as the defence of the nation. Stronger and healthy citizens will be able to defend the country better and be productive to make the country richer in times. There is a need to rise the health awareness of each individual in the country of all ages to participate in the campaign health for all. Many countries have developed their own approach to handle the Covid problem and Omicron. Cuba, Hong Kong, East African island have developed their own strategy to solve the problem of Covid and Omicron. A recent narrative of the changes given by Satish(2022) is something that needs more substantiation and reading for more modification needed for the India's situation.

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