



A COMMUNITY SURVEY- TO KNOW THE REASONS OF RECENT SURGE CASES OF COVID-19 IN INDIA (EVIDENCE BASED)

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ABSTRACT

Methodology : A cross sectional online survey was conducted from month of May to June 2021 in north and mid India. The educated employed people from common population had been invited in this study. A total 510 people were enrolled and all answered the given questions. The answers were collected in Google form online. Exclusion criteria were- students and unemployed.

The data was recorded through the predesigned validated questionnaire containing a mixture of open and closed ended questions

Result : In this survey all participants were between the age group 28- 58years, in which male 55.29% (282) and female 44.71% (228). The result reveals that the high population density as well as lack of awareness and knowledge -63.53% populations not followed the social distancing properly recommended by the Government of India and World Health Organization (WHO) properly. Means followed only when police was present. Second main reason was not using mask properly (56.08%), using mask of cloth and totally rely on that (62.35%), underestimated (39.61%), hide illness- to prevent from social ignorance (47.45%) and gatherings in different occasions like elections (58.82%), marriages (32.55%), death (16.47%) and religious festivals (18.82%).

Conclusion : This study reveals the lack of sufficient knowledge, awareness and consequences caused the big damage of families as well as nation. Gatherings, moving, mixing, not following protocols properly and new variants of concerns played main role in quick spreading of Corona. So, now it is become more important that the general population should understand the severity and damaging power of micro-organisms. Now government as well as general population should understand the all sources of spreading the Covid-19 like infectious disease. Now it could be helpful to government to suppress or prevent similar surge around the world presently and in future too.

KEYWORDS : Covid-19, Sero-survey, Pandemic, Surge, Variants of concern

INTRODUCTION

Although all aware of basic reasons of spreading of Corona virus. But in second wave of Covid-19, which probably have the double mutant and now suspecting as third wave too. The infectivity and mortality rate increased enormously or exponentially, means it spread very fast in all states of India from last three months. Why this pandemic showing J-curve in India, it is comes in mind of all thinkers in this world. So I tried to collect the information from well-educated employed community, already published papers and media. Now in this survey I tried to reveal the all possible reasons including the basic reasons along with scientific reasons.

The scientists are continuously working to understand the anatomy of several coronavirus variants spreading in India, where a violent second wave of Covid-19 has devastated the country. Researchers in India was continuously trying to pinpoint what was behind the unprecedented surge, which could be due to an unfortunate confluence of factors, including the emergence of particularly infectious variants, a rise in unrestricted social interactions, and low vaccine coverage. Untangling the causes could be helpful to governments trying to suppress or prevent similar surges around the world.

Evidence is growing that one variant first detected in India might be more transmissible and slightly better at evading immunity than existing variants. Experiments on animals also indicate that it might be able to cause more severe and serious disease in them. Researchers are collecting the information and conducting the experiments on variants and trying to understand, what kind of danger they pose globally.

Germany had also recently experienced large outbreaks relative to their size, and nations including Brazil and the United States were reported infection rates of around 75,000 a day. But recently India's daily total were highest recorded for many country.

"The second wave has made the last one look like a ripple in a bathtub", says Zarir Udawadia, a clinician-researcher in pulmonary medicine at P D Hinduja Hospital and medical research Centre in Mumbai. He described a "nightmarish" situation at hospitals, where beds and treatments are in extremely short supply.

Approx. four weeks before, it took as if multiple variants were behind a series of surge in India. Findings of genomic data indicated that B.1.1.7, first identified in United Kingdom, was dominant in Delhi, NCR and Punjab. And new variant dubbed B.1.618 was present in West Bengal. B.1.617 was dominant in Maharashtra. "But since then, B.1.617.2 has overtaken by B.1.618 in West Bengal has become the leading variant in many states in North-East and increased rapidly in Delhi"- on 05 May by Sujeet Singh, Director of National Centre for Disease Control (NCDC), New Delhi. In just more than a month, the B.1.617 variant became the dominant strain across India and spread to nearly 40 countries globally.

Recently the World Health Organization (WHO) granted B.1.617 a 'variant of concern'. Variants are classified in this way when there is evidence that they spread more rapidly, cause more severe disease or evade previously acquired immunity better than do circulating versions of the virus. Several other different variants of concern have had a significant impact globally on different times.

Indian scientists first detected B 1.617 in a few samples in October 2020. INSACoG ramped up surveillance in late January in response to a rising number of variants, and noticed that B 1.617 was on the rise in Maharashtra and attached districts of the other states. By mid- February, it connected for 60% of cases there, says Priya Abraham, Director of National Institute of Virology (NIV) in Pune.

In detailed genomic and structural analysis of B.1.617 published as a preprint on 3 May. National Institution of Virology scientists identified eight mutations in the virus's

spike protein, through which it gains entry to cells. Two of them look similar to mutations that have allowed other variants of concerns to become more transmissible, and a third resembles a mutation that might have allowed P1 to partially evade immunity.

1Dr. Shahid Jameel , a virologist at Ashoka University in Sonapat-says "I was expecting fresh waves of infection, but I would not have dreamt that it would be this strong". He chairs the scientific advisory group of Indian SARS-CoV-2 Genome sequencing consortia (INSACoG), says "its prevalence has increased over other variants in much of India, suggested that it has better 'fitness' over those variants". Dr. Ravindra Gupta, a virologist at the University of Cambridge, UK, says that it is "highly likely to be more transmissible".

Gagandeep Kang, a virologist at the Christian Medical College, Vellore, India says "the virus may be getting into populations that were previously able to protect themselves". That could include wealthier urban communities, in which people isolated during the first wave but had started mingling by the second wave1.

There was India's health infrastructure, already troubled before the pandemic and now overwhelmed. On 11 May 2020, soon after the first lockdown was relaxed, the government policy think tank NITI Aayog analyzed the country's Covid-19 response4. It found a severe dearth of medical equipment such as the testing kits, PPE, masks and ventilators. It also noted the long running shortage of emergency healthcare and lack of health care professionals; the ratio of doctors to the patients was recorded as 1:1445, similar for others health care professionals and hospital beds to people 0.7:1000, with a ventilator to population ratio of 40000 to 1.3 billion2.

India reported its highest single day spike in Covid-19 cases in 2021 on 10th June Thursday with 94,052 fresh cases in 24 hours5. 29183121 total infected population and death in a day. Here are 6 possible explanations for the big rise in cases during second wave, as per print and online media-

1. Protocol Fatigue-

According to the experts at the John Hopkins Medicine, human behaviour is the major factor for the second wave of Covid-19 pandemic. The strict lockdown that was imposed last year slowed down Covid-19 pandemic in India giving the authorities time to ramp of requisite infrastructure but it forced people to be cooped up in their homes for long time. Covid-19 protocols come in along with the pandemic. Wearing a face mask, washing hands regularly and maintaining social physical-distancing was advised and those who did not followed the rules were penalized in several cases. Many people actually ended up spending about one year inside their homes, practically locked inside their home.

So, when cases started declining, people just broke out of the 'shackles'. Gatherings began becoming large particularly end of December onwards. Rules were relaxed and penalties were not enforced. Even in metro-trains of Bengaluru, Delhi and Mumbai, people could be seen travelling without wearing any types of a face mask. The patterns were seen across the whole country allowing the Corona-virus to create a second and possibly stronger wave.

2. Mixed signal from Government and Elections-

Protocol fatigue appears to have affected the government machinery as well. Though health experts warned that Corona-virus pandemic was not over even at a time when daily Covid-19 infections fell below 10,000 marks, touching the lowest on February1, when only 8,579 cases were recorded in the whole country.

Prime minister in his speeches emphasized keeping the vigil against the Covid-19 pandemic. But in states, leaders and workers did not care to follow the protocol in organizing political rallies for elections in Bihar last year, and the assembly polls in Assam, West Bengal, Kerala, Tamilnadu Puduchery and recent elections of Gram Pradhan in Uttar Pradesh. The queues outside polling booths and gathering at the election rallies of the all parties defied Covid-19 protocol. This sent a confusing message to the public of nation and also the grassroots level functionaries of the government. It weakened the vigil against the pandemic.

3. Urban Mobility-

India had recorded more 1.5 cror cases of Covid-19 yet the pandemic is still mostly concentrated around cities and connected villages. These cities had greater mobility giving more opportunities for the virus to spread from one person to another when the guard is lowered and congested.

This was why cities such as Bengaluru, Delhi, Mumbai, Nagpur and Pune were worst affected in the second wave. However, they had also badly impacted in the first wave. The respective state governments have therefore, imposed restrictions on travel from and to those cities in order to mitigate the spread of Covid-19 infection.

4. Mutations / fast spreading variants-

Some researchers say that the speed and scale of the current outbreak suggest a new ingredient: emerging variants of virus.

1Udwadia has anecdotally observed that entire households are now getting infected- unlike the first wave of Covid-19, when single individuals would test positive. He attributes this to the presence of more infectious variants. "If one person in the family has it, I can guarantee that everyone in the family has it," he says.

Besides the human factors, the evaluation of Corona-virus is among the major reasons for the second wave. Scientists have detected numerous mutations in the SARS-CoV-2, the Corona-virus that causes Covid-19, some of these mutations have produced what they call is 'variants of concern' or VOCs.

India has reported such VOCs from several states including the worst impacted once by the secondary wave of Covid-19 Pandemic. The second wave began in India around the time when scientists detected a double mutant variant of SARS-CoV-2. Most of the mutant variants are known to have greater infectivity.

5. Increased Testing-

It is another reason why India is detecting more cases in the second wave of the Covid-19 pandemic. The sero-survey has shown that India had greater Covid-19 exposure than revealed through confirmed cases of coronavirus infection on the basis of laboratory tests.

By the time second wave hit India, the availability of Covid-19 testing had improved tremendously compared to the first wave situation. Secondly people were generally reluctant to undergo Covid-19 testing during first wave of the pandemic as the fear of unknown had gripped the general psyche of the nation. A lot of cases with mild symptoms never come up for testing.

Now easier availability of Covid-19 testing, improved disease management in hospitals and rollout of Covid-19 vaccination programme has made people more confident about opting the test. However, at the national level, the number of Covid-19 tests is fairly below the peak seen in September last year. In the first Covid-19 wave, the highest single day testing was

recorded on September 24 at 14, 92,409.

6. Mixing, moving and travelling-

Srinath Reddy, an epidemiologist and head of the Public Health Foundation of India in New Delhi, says "The pandemic resurfaced in a fully open society where people were mixing, moving and travelling" 1.

With cases declining after last September's peak, "there was public narrative that India had conquered COVID-19", says Laxminarayan1. In recent months, large crowds have gathered indoors and outdoors for political rallies, religious celebrations, wedding etc.

"The arrival of the vaccine put everyone into a relaxed mood," says Laxminarayan1. Government providing full treatment in totally free of cost that made community more relaxed.

Methodology

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Data Collection

The data was recorded through the predesigned validated questionnaire containing a mixture of open and closed ended questions.

During evaluation the following common questions were asked to the participants-

What were the reasons of quick spreading of Novel corona virus?

Have you suffered from fever within 3 months?

Have you ever lost your taste and smell within 3 months?

Have you suffered from cough, cold and throat/mouth infections?

What were the other specific reasons of spreading Covid-19 in second wave?

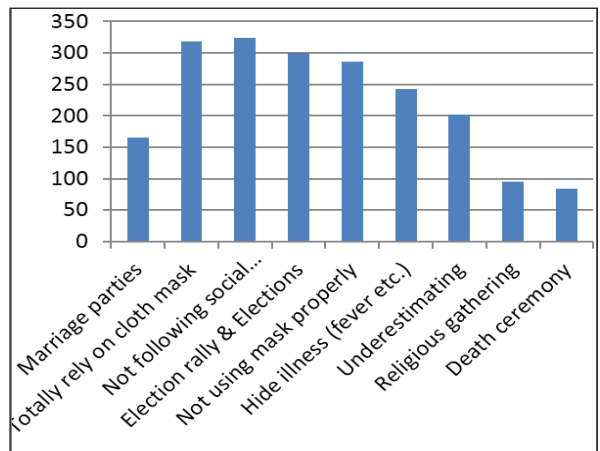
Results

Among the all participants, numbers of participants were between the age group 28- 58years, in which male 55.29% (282) and female 44.71% (228). The result reveals that the high population density as well as lack of awareness and knowledge -63.53% populations not followed the social distancing properly recommended by the Government of India and World Health Organization (WHO) properly. Means followed only when police was present. Second main reason was not using mask properly (56.08%), using mask of cloth and totally rely on that (62.35%), underestimated (39.61%), hided illness- to prevent from social ignorance-(47.45%) and gatherings in different occasions like elections (58.82%), marriages (32.55%), death (16.47%) and religious festivals (18.82%).

Reasons	No. of responses	Percentage
Marriage parties	166	32.55
Totally rely on cloth mask	318	62.35
Not following social distancing	324	63.53
Election rally & Elections	300	58.82
Not using mask properly	286	56.08
Hide illness (fever etc.)	242	47.45
Underestimating	202	39.61

Religious gathering	96	18.82
Death ceremony	84	16.47

This graph shows the number of responses for different reason



Discussion-

As per findings reveals that most of the community (general population) even after knowing the complications of Covid-19, they not taken it seriously mainly due to in first wave very less population get infection and death rate was also low . Political leaders (opposition party of government) they also delivered some wrong statement regarding pandemic as well as for vaccination that created myths and confusion in community about the Covid-19 severity and consequences. Elections rallies, queues of voting, gathering of festivals, marriage parties, death, mentally unpreparedness and other get-together parties played a significant role in spreading Covid-19 quickly, other than scientific reasons.

Different variants of Corona played important role in quick spreading.

Conclusion-

This study reveals the lack of sufficient knowledge, awareness and consequences caused the big damage of families as well as nation. Gatherings, moving, mixing, not following protocols properly and new variants of concerns played main role in quick spreading of Corona. So, now it is became more important that the general population should understand the severity and damaging power of micro-organisms. Now government as well as general population should understand the all sources of spreading the Covid-19 like infectious disease. Now it could be helpful to government to suppress or prevent similar surge around the world presently and in future too. And for the same Government bodies, Non-Government Organizations, print/ online media and social media should come forward and spread the knowledge of infections causing organisms as well as methods of hygiene. Which make the general population more up-to-date.

Conflicts of interest –

None.

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