

## **A Study of Awareness Level about Health, Hygiene and Boosting Immunity with Supplementary Foods during Covid19.**

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### Abstract

*Immunity is the ability of the organism to resist the invasion of microorganisms and harmful substances. With the emergence of COVID-19 - an infectious disease caused by a newly discovered coronavirus; it has become most important to build our immunity. In humans, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019. On 30 January, WHO declared the outbreak a Public Health Emergency of International Concern (PHEIC). The symptoms for COVID-19 virus include mild to moderate respiratory illness. Older people and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness. The best way to prevent and slow down transmission is be well informed about the COVID-19 virus, the disease it causes and how it spreads. There are various preventive measures such as masks, hand hygiene practices, avoidance of public contact, case detection, contact tracing, and quarantines are effective for reducing the transmission. Various researchers have recommended eating and staying healthy to protect from virus. The aim of this paper was to analyze awareness related to health, hygiene and boosting immunity with supplement foods among the community. A Self-made questionnaire consisted 25 questions were circulated among various cities through social media. The data was collected through Google form.59% data was received from Delhi, 23.8% data was received from Gurugram city and rest from various cities of Haryana and Uttar Pradesh. Total 424 responses were received out of which 68% was females and 32% was males.66.98% people were aware about health, hygiene and immunity*

*boosters, 26.9% people had average awareness and 6.1 % people were less aware about health, hygiene and immunity boosters.*

**KEYWORDS:** *Coronavirus, COVID-19, Health & hygiene, Immunity Boosters*

## INTRODUCTION

It is a universally acknowledged truth that a healthy life leads to a happy life. This state of life can only be achieved when one maintains a healthy and a sanitized environment around his existence. But all human efforts are not sufficient to achieve this. The nature also has a good share in the same. Ideally, an environment free of pollution and diseases is what a person wants himself to be surrounded with. Such an environment can be termed as a “healthy environment”. However, the kind of today’s environment that encloses the human and the animal species is completely contradictory to the literal meaning of a “healthy environment”. In other words, the scenario of today’s world offers a completely different picture of the surrounding environment which is unhealthy in nature and profoundly hampers the process of achieving the Sustainable Development Goal of ensuring the good health and well- being of people (SDG3). This is because of many diseases that are spreading rapidly not only between animals and humans respectively, but also crossing the barrier of the former species and entering into the latter i.e., these diseases are zoonotic in nature.

This research article emphasizes upon one such zoonotic disease which has spread tremors among the humans of the world in today’s time. This disease is the coronavirus disease which is the central aspect of not only this research article, but also, the whole world. A descendent of the Coronavirinae family, which in turn is a sub- family group (along with Torovirinae) of the main family of viruses called Coronaviridae, the coronavirus is gaining attention of every single human existence in the world today. The name of the disease has its roots in the Latin word *corona* which means crown or wreath (a systematic arrangement of flowers in a ring- similar to a garland). Though, the disease has its name after the shape of the causative agent which has spikes on it resembling a crown, the recent widespread outbreak of this disease has led to its another trending name (given by the World Health Organization) called “COVID - 19”, where CO stands for Corona, VI stands for Virus, D stands for Disease and 19 stands for 2019, the year in which it started again after the last outbreak of the same due to some other causative agent.

Before starting with the main discussion of COVID- 19 in isolation with other coronavirus diseases, it is important to know that the Coronavirinae family has nearly seven viruses that act as causative agents of one common disease i.e., the coronavirus disease. Perhaps, this is

also the reason why this group of viruses is collectively called Coronavirinae (the term indicative of coronavirus). Just like all humans have the same physical external appearance (two hands, two legs, one face, one neck etc.) but have different genes which lead to individual differences, the same is the case with these seven viruses. All these viruses belonging to the Coronavirinae family have the same external crown- like appearance, but their genomes are different leading to a difference in the severity levels as well as the effects of the coronavirus disease that they cause. For example, MERS- CoV is a causative agent of the coronavirus disease named “Middle East Respiratory Syndrome” (as is evident from the virus name). This disease leads to pneumonia, vomiting, nausea etc. in people. Another virus causing another type of coronavirus disease is the SARS- CoV leading to “Severe Acute Respiratory Syndrome” and affects people with fever, dry cough and running nose. Though, both of them fall under the category of coronavirus disease, but these differ from each other in terms of their severity levels and effects depending upon their respective causative agents.

Talking about COVID- 19 in isolation with other coronavirus diseases caused from different viruses, it is discovered that the ongoing COVID- 19 owes its extremely central position in this world due to SARS- CoV- 2 virus which is responsible for the spread of this disease. SARS-CoV-2 is named after the previously mentioned SARS-CoV which was discovered in 2002 and led to an outbreak of the accompanying disease. Because this coronavirus has again, for the second time, found its existence among the human species after nearly 18 years, the causative agent includes the number “2” in its name for its distinct identification. SARS-CoV-2 is the seventh causative agent of the coronavirus disease in the family of Coronavirinae. The seven viruses of the Coronavirinae family are classified into four main categories on the basis of their genetic and anti- genetic criteria. These categories are Alphacoronavirus, Betacoronavirus, Gammacoronavirus and Deltacoronavirus. The SARS-CoV comes under the category of Betacoronavirus.

As already stated, this virus has a crown- like appearance. The genome (a single complete set containing different genes) of SARS-CoV-2 encodes four different kinds of proteins viz. the S protein (indicative of the spikes on the outer appearance), the N protein (nucleocapsid), the M protein (membrane) and the E protein (envelope). These proteins collectively make the structure of the virus particles or virions that are responsible for the spread of the disease. Each virion is enveloped with the E protein, and the basic structure or the shape of this

envelope is determined by the M protein. The N protein binds the genome which consists of a single strand of positive sense RNA (ribonucleic acid). The S protein, which is present in the spikes on the membrane is responsible for connecting the virus with the cell surface of the host, thereby leading to the associated disease.

The place which has been designated as the originator of COVID- 19 is Wuhan, the capital city of the Hubei province of China. The first person to be infected with coronavirus disease was found in China itself in the late 2019. According to the South China Morning Post (A Hong- Kong English- language newspaper), the first case of COVID -19 dates back to November 17, 2019. Though many people have proclaimed that this disease is a result of some deliberate scientific experimentation by the people of China as a strategy to infect the world in order to lower the economies of other countries and raise the economy of their own country, but, recent findings have declared that this disease is spread from bats and pangolins, and that scientists have no role to play in the same. Professor Stephen Turner (HoD of Department of Microbiology, Monash University, Melbourne) says:

“What is most likely is that this virus is originated in bats.”

However, many investigations are going on as there is a lot of uncertainty regarding its origin. The World Health Organization declared COVID- 19 as “pandemic” on March 11, 2020 because of its rapid spread, rapid multiplication and severe effects like shortness of breath and other issues in the upper respiratory tract of humans.

The effects of COVID- 19 have created a great angst among the human species because of its rapid expansion and replication. However, these effects are not only negative in nature. Some of them also have positive influences on the humans as well as the environment. The effects of COVID- 19 can be broadly classified as “Psychological Effects”, “Physical Effects”, “Economic Effects” and “Environmental Effects”.

Before starting with the discussion of these effects, it is important to know the factors that determine the classification and nature of these four types of effects. The first factor is the “Isolation” factor. This is associated with isolating or separating COVID- 19 positive people from disinfected people so that the disease does not spread further. The second factor is the “Quarantine” factor which is associated with restricting the movement of those people who

are suspicious of being infected with COVID- 19. These people are those who have been in contact with an infected person and do not show any symptoms or those who have travelled from some other place. Further, the suspected people are put into quarantine wards for a minimum of fourteen days because the symptoms of COVID- 19 take atleast two weeks to develop after a person has been infected with the same. The third and the last factor is the “Lockdown” factor which is based on social- distancing. This factor is associated with all the disinfected people who are expected to remain aloof and distant from outsiders and stay at their respective homes. Further, this factor also involves the locking down of the main city or the whole country whose situation is extreme and requires this.

Coming to the types of effects that are determined by the influence of the above- mentioned factors, the first type of effects are the psychological effects which are related with the psychology and the behavior of the people. These effects have shown a negative influence on the behavior of the people to a large extent and are mostly associated with people who are isolated or quarantined. According to a recent research named “The Psychological Impact of Quarantine and How to Reduce It: Rapid Review of the Evidence”, people who have been isolated or quarantined have been reported of acute stress disorder, emotional exhaustion, detachment from others, anxiety, irritability, insomnia, poor concentration, indecisiveness, post- traumatic stress symptoms, boredom, confusion, frustration, anger and loss of usual routine. According to yet another finding of the same study, the following has been noted:

“Only one study compared psychological outcomes during quarantine with later outcomes and found that during quarantine, 7% (126 of 1656) showed anxiety symptoms and 17% (275) showed feelings of anger, whereas 4–6 months after quarantine these symptoms had reduced to 3% (anxiety) and 6% (anger).”

The physical effects are associated with the physical fitness and health of the people and include negative influences on both COVID- 19 positive as well as COVID- 19 negative people respectively. People who are infected with the disease have shown deteriorating health and augmenting death rates. According to well- known resource, the current status of coronavirus in India includes 8,447 confirmed COVID- 19 cases, 765 recovered and 273 deaths whereas the global status includes 17, 89, 985 confirmed COVID- 19 cases, 4,11,836 recovered and 1, 09, 823 deaths. People who are not infected with the disease have shown

increasing weight because of the lockdown factor which keeps them away from going out of their house. As a result, the routine of these people, for most part of the day, includes eating and sleeping, and no physical activity is reported.

The economic effects have shown a negative influence by leading to a loss in the economies of nearly every country having high rates of COVID- 19. The loss in the economy is guided strongly by the lockdown factor where people cannot go outside to work and have to do it from home which is not reliable enough.

The last is the environmental effects which are associated with the nature and the environment. These effects are the only effects that have shown positive influence due to the lockdown factor. It is a well- known fact that more traffic leads to more fuel combustion and emission of greenhouse gases which ultimately results in global warming. Because people are restricted within their homes, they are not allowed to drive or go out for work. This has resulted in less traffic and in fact, no traffic in some areas. A decrease in the number of vehicles on road has led to an increase in the growth of plants and trees. A drastic decrease has also been seen in air pollution. This can be said because now, clear starry nights are experienced in all the populous cities where once, the sky hardly displayed a star or two. Reports have also shown that because of no industrial activities and waste discharge into the water bodies, the water is clean and pollutant- free.

In order to cope with the ongoing COVID- 19 crisis globally, it has become essential for every person to stay fit and healthy and strengthen the immune system in order to avoid falling a victim to the disease. A good and a strong immunity system help a person to stay fit, and also fight against any disease, if at all he falls a victim to the same. The Ministry of Ayush has recommended certain immunity boosting measures like drinking warm water throughout the day, doing physical workouts at home, practicing yoga regularly and meditating. For eating habits, it has recommending the inclusion of spices like turmeric, coriander, garlic and cumin in food, applying sesame or coconut oil in both nostrils and eating all organic and herbal food items.

The World Health Organization has also recommended some measures that can be adopted in order to increase and strengthen the immunity system. For washing hands, the WHO says:



“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 can make you sick. 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.”

The WHO also advises to maintain at least 1 metre (3 feet) distance while talking to a person who is coughing or sneezing. This is because when someone coughs or sneezes, they spray small liquid droplets from their nose or mouth which may contain virus. Another recommendation by the WHO is to practice respiratory hygiene. This can be done by ensuring that the people around, follow good respiratory hygiene. This means covering the mouth and nose with a tissue when while coughing or sneezing.

Some other ways that can be adopted to maintain good health hygiene are including some healthy fruits, vegetables and nuts that boost up the immune system. Citrus fruits like grapefruits, papayas, kiwis, oranges, limes, and lemons should be included in daily eating habits because of the presence of vitamin C which is responsible for strengthening the immune system by increasing the white blood cells that are essential for fighting the infections. Broccoli is yet another immunity booster as it is charged with vitamins A, C, and E, as well as many other antioxidants and fibers. Red bell peppers also contain twice as much vitamin C as citrus fruits. They are also a rich source of beta carotene which helps to keep the skin healthy and fresh. Almonds are best to fight colds and coughs because of the inclusion of vitamin E which is the key to a healthy immune system. Sunflower seeds are full of nutrients, including phosphorous, magnesium, and vitamin B-6. They also contain an incredible amount of vitamin E which is important in regulating and maintaining the function of the immune system.

Therefore, one’s health is in one’s own hand. It is extremely important to take proper care of health as it is the only way which is helpful in fighting any type of health issues. If the people remain healthy, then the nation, and further, the whole world remains healthy. This, thus, leads to an establishment of a well- coordinated balance between the humans and the environment.



## LITERATURE REVIEW

### **1. Role of the Microbiota in Immunity and inflammation – YASMINE BELKAID and TIMOTHY HAND (March 27, 2015)**

*(PMC) US NATIONAL LIBRARY MEDICINE, NATIONAL INSTITUTES OF HEALTH*

The researcher has showed that microbiota plays a fundamental role on the induction, training and function of the host immune system. The immune system has largely evolved as a means to maintain the symbiotic relationship of the host (that is the human body which it resides in) with these highly diverse and evolving microbes. When operating optimally this immune system–microbiota alliance allows the induction of protective responses to pathogens and the maintenance of regulatory pathways involved in the maintenance of tolerance to innocuous antigens. However, in countries which are developed or have a good source of income that helps them to buy antibiotics in bulk, overuse antibiotics, changes in diet, and elimination of constitutive partners such as nematodes has selected for a microbiota that lack the resilience and diversity required to establish balanced immune responses. This type of usage of the drugs (antibiotics) and availability of them in such countries has caused a dramatic rise in autoimmune and inflammatory disorders in parts of the world where our symbiotic relationship with the microbiota has been the most affected.

### **2.Features, Evaluation and Treatment Coronavirus (COVID-19)(March 20, 2020)**

According to the World Health Organization (WHO), viral diseases continue to emerge and represent a serious issue to public health. In the last twenty years, several viral epidemics such as the severe acute respiratory syndrome coronavirus (SARS-CoV) in 2002 to 2003, and H1N1 influenza in 2009, have been recorded. Most recently, the Middle East respiratory syndrome coronavirus (MERS-CoV) was first identified in Saudi Arabia,2012.Most countries are utilizing some type of clinical and epidemiologic information to determine who should have testing performed. There are epidemiologic factors that assist in the decision on who to test. The WHO recommends collecting specimens from both the upper respiratory tract (naso- and oropharyngeal samples) and lower respiratory tract such as expectorated sputum, endotracheal aspirate, or bronchoalveolar lavage. The collection of BAL samples should only be performed in mechanically ventilated patients as lower respiratory tract samples seem to remain positive for a more extended period. The samples require storage at four degrees

Celsius. There is no specific antiviral treatment recommended for COVID-19, and no vaccine is currently available. The treatment is symptomatic, and oxygen therapy represents the major treatment intervention for patients with severe infection. Mechanical ventilation may be necessary in cases of respiratory failure refractory to oxygen therapy, whereas hemodynamic support is essential for managing septic shock.

### **3. Feng He ,Yu Deng (14 March 2020) “Coronavirus Disease 2019”**

In late December 2019, a cluster of unexplained pneumonia instances has been said in Wuhan, China. A few days later, the causative agent of this mysterious pneumonia was identified as a novel coronavirus. This causative virus has been temporarily named as severe acute breathing syndrome coronavirus 2 and the relevant inflamed sickness has been named as coronavirus sickness 2019 (COVID-19) by the World Health Organization, respectively. The COVID-19 epidemic is spreading in China and all around the world now. The cause of this assessment is in the main to check the pathogen, clinical features, diagnosis, and treatment of COVID-19, but additionally to remark in brief at the epidemiology and pathology based at the modern-day evidence. This evaluate is frequently to check the pathogen, scientific capabilities, analysis, and remedy of COVID-19, but additionally to remark in brief on the epidemiology and pathology primarily based at the contemporary proof.

### **4. Hussin A Rothan et al. J Autoimmun(2020) “The Epidemiology and Pathogenesis of Coronavirus Disease”**

This article stated that Coronavirus disease (COVID-19) is caused by SARS-COV2 and represents the causative agent of a potentially fatal disease that is of great global public health concern. Based on the large number of infected people that were exposed to the wet animal market in Wuhan City, China, it is suggested that this is likely the zoonotic origin of COVID-19. Person-to-person transmission of COVID-19 infection led to the isolation of patients that were subsequently administered a variety of treatments. Extensive measures to reduce person-to-person transmission of COVID-19 have been implemented to control the current outbreak. Special attention and efforts to protect or reduce transmission should be applied in susceptible populations including children, health care providers, and elderly people.

**5.LizMeszaros (2020) “How to boost your immune system during the COVID-19 pandemic?”**

She suggested in her article that physical activity can give your immune system a great boost in many ways. Her article revealed that regular exercise increases your body’s production of antibodies and T-cells, causing them to circulate more rapidly. It also helps to expel toxins from your body, which can energize your cells and metabolism. Regular exercise also lowers your body’s stress hormones—including adrenaline and cortisol—which gives immune system added strength. Her article emphasized on how to keep your immune strong so one of the keys to a healthy immune system is eating right. Eat healthy and whole foods, which is a good way to ensure that you’re getting proper vitamins and nutrients in your diet. She suggested to take sufficient sleep as it reboots mind and body. She suggested to maintain proper hygiene and wash your hands properly with soap and keep social distancing.

**OBJECTIVES:**

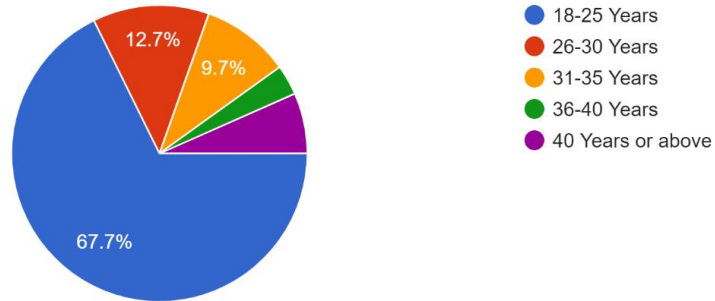
The objectives of the study are as follows:

- 1.To study the awareness level about health, hygiene and boosting immunity with supplementary foods among the community.
2. To develop a questionnaire to study the awareness about health, hygiene and boosting immunity with supplementary foods among the community.

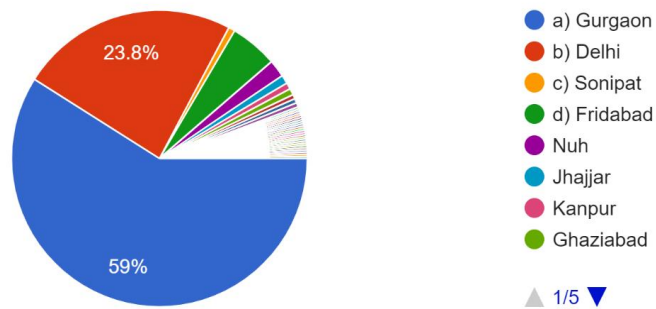
**METHODOLOGY:**A descriptive survey method was used to study the awareness about health, hygiene and boosting immunity with supplementary foods among the community. Questionnaire was circulated among the community members in a google form.

**SAMPLE:** Data was collected from 424 people of Delhi, NCR and U.P. From 18 years and 40 above male and females from Delhi, Gurugram, Faridabad and NCR were part of the sample.

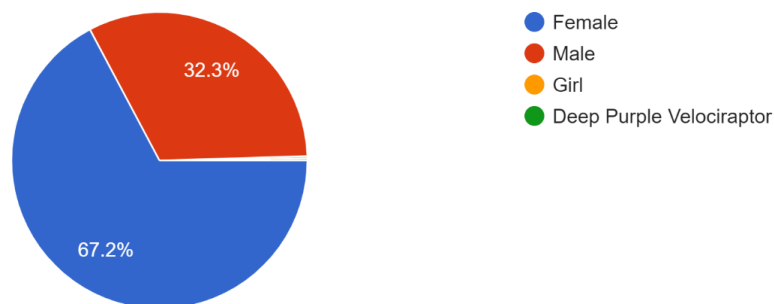
Age Group:  
424 responses



City:  
424 responses



Gender:  
424 responses



Data was collected from 18 and 40 above age groups that includes 67.7% were from 18-25years age group, 12.7 % from 26-30 years age group, 9.7% from 30-35 years, 3.3 % from

36-40 years and 6.6% from 40 and above age group. We received 424 responses out of which 68% were females and 32% respondents were males. Most of the Data was gathered from 3 cities Gurugram (59.8 %), Delhi(23.8%) and Faridabad (5.2%) rest 11.2% data was received from other cities of Haryana and Uttar Pradesh.

#### **DESCRIPTION OF TOOL:**

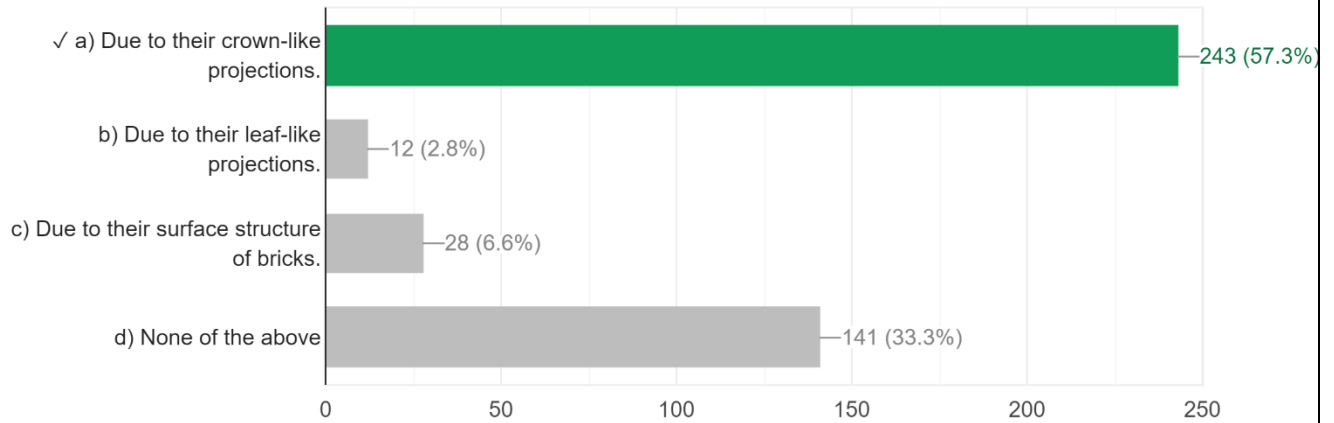
A self-made questionnaire was prepared including 25 questions. It consists 3 dimensions namely General information about covid19, Health and Hygiene and Immunity Boosters. Firstly 40 questions were prepared and out of these 40 only 25 were finalized. We consulted experts and considered their suggestions. For making final draft, it was tested on 10 students. A google form was prepared and link was shared with them and got responses.

<b>DIMENSIONS</b>	<b>QUESTION NUMBER</b>	<b>NUMBER OF QUESTIONS</b>
<b>General information about COVID-19</b>	Q1, Q3, Q4, Q5, Q6, Q7, Q8, Q10, Q15, Q18, Q19, Q20	12
<b>Health and Hygiene</b>	Q2, Q9, Q13, Q17, Q21, Q22, Q23, Q24, Q25	09
<b>Immunity Boosters</b>	Q11, Q12, Q14, Q16	04
<b>Total</b>	-	25

#### **ANALYSIS AND INTERPRETATION**

Q1. On what basis Coronavirus got its name?

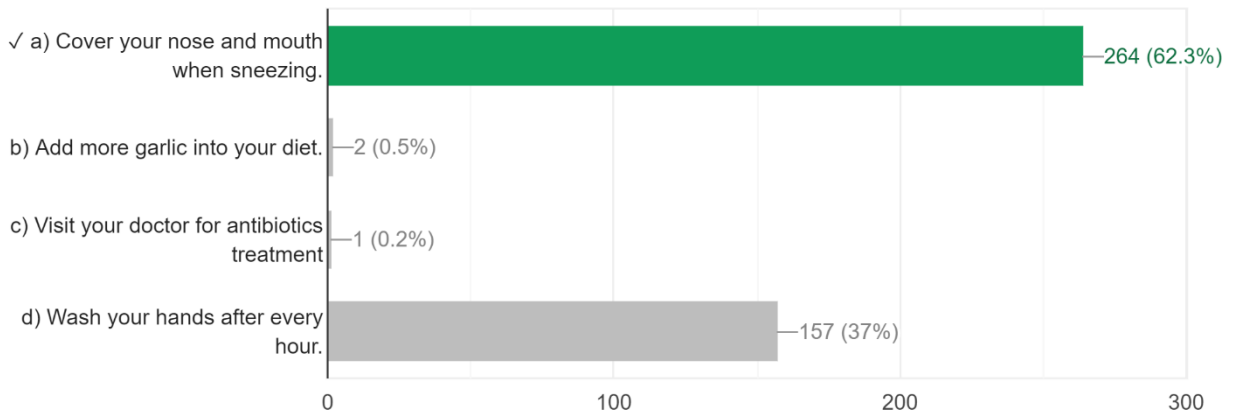
243 / 424 correct responses



This graph interprets how many people are aware about which basis of coronavirus got its name. 57.3% people are aware about it but the rest 42.7% of people are not aware about it.

Q2. What are the necessary precautions everyone should take to protect themselves from the Coronavirus?

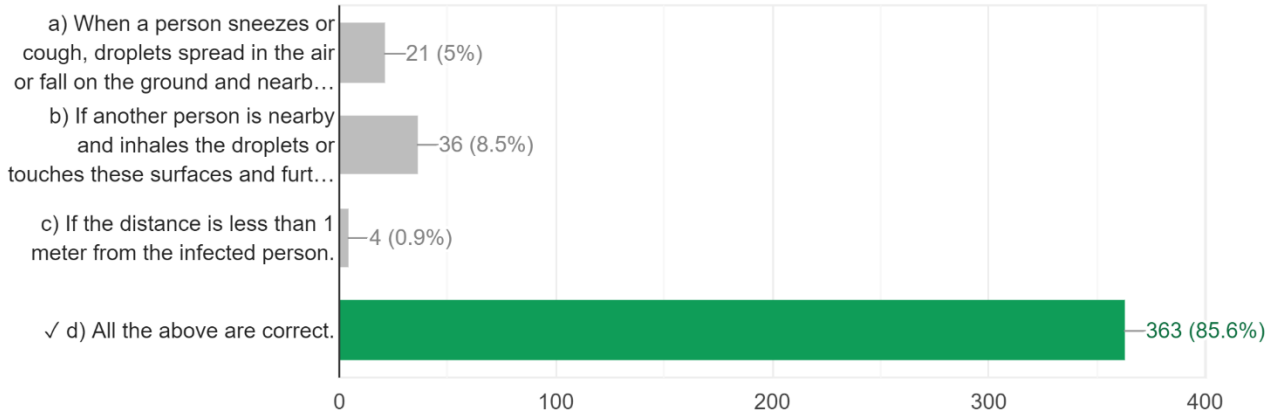
264 / 424 correct responses



The graph interprets how many respondents are aware of the necessary precautions everyone should take to protect themselves from the coronavirus. 63.3% respondents are aware of the right precautions but the 37.7% respondents are not aware or you can say that they don't know how to protect themselves due to coronavirus.

Q3. How Coronavirus can be transmitted?

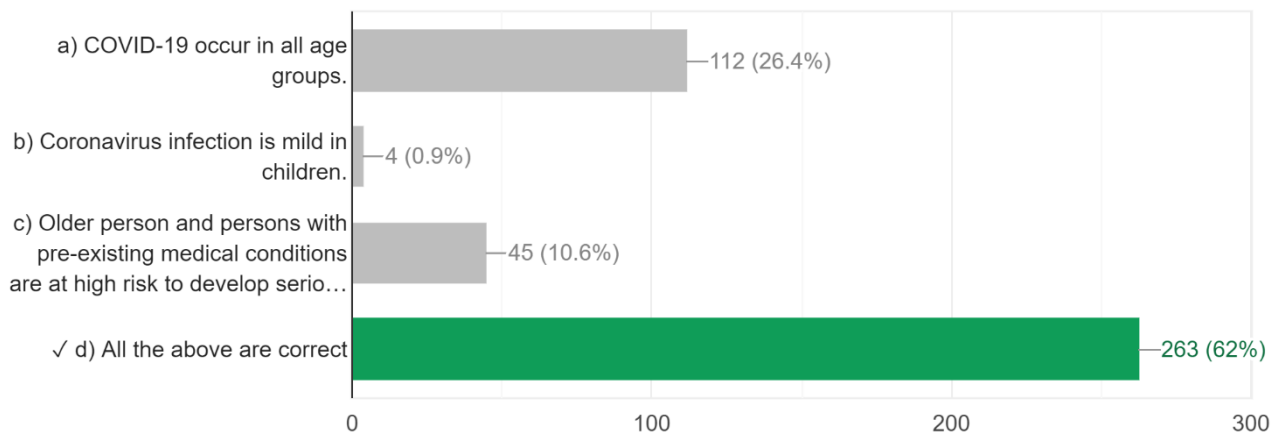
363 / 424 correct responses



This graph interprets that 85.6% respondents know that how coronavirus can be transmitted but rest 14.4% respondents have little awareness about it. 5% respondents know that it spreads when a person sneezes or cough, 8.5% know that if another person inhales that droplets or touches that surface and 0.9% know that if the distance is less than 1 metre from the infected person.

Q4. In which age group the COVID-19 is transmitted?

263 / 424 correct responses

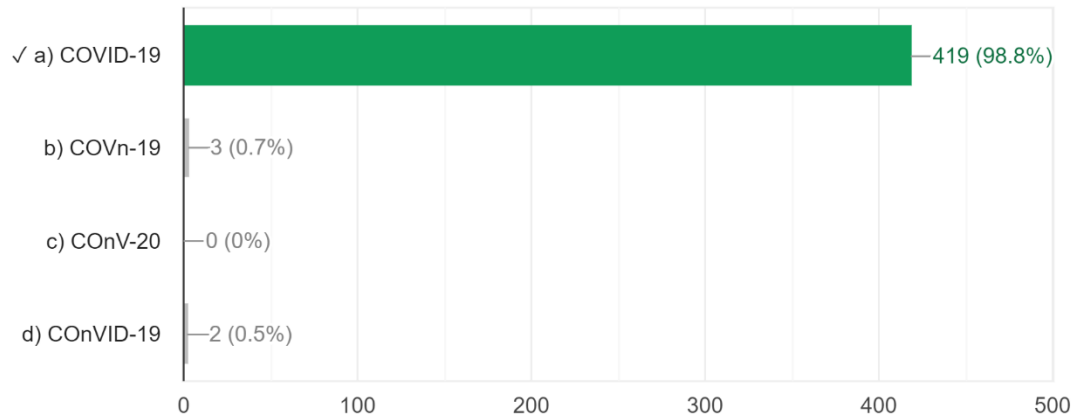


This graph interprets that 62% respondents are aware about in which age group coronavirus is transmitted. But 38% respondents are not aware about which age group got affected by it.



Q5. World Health Organization announced an official name of Novel Coronavirus on 11 February, 2020. What is another name of Coronavirus?

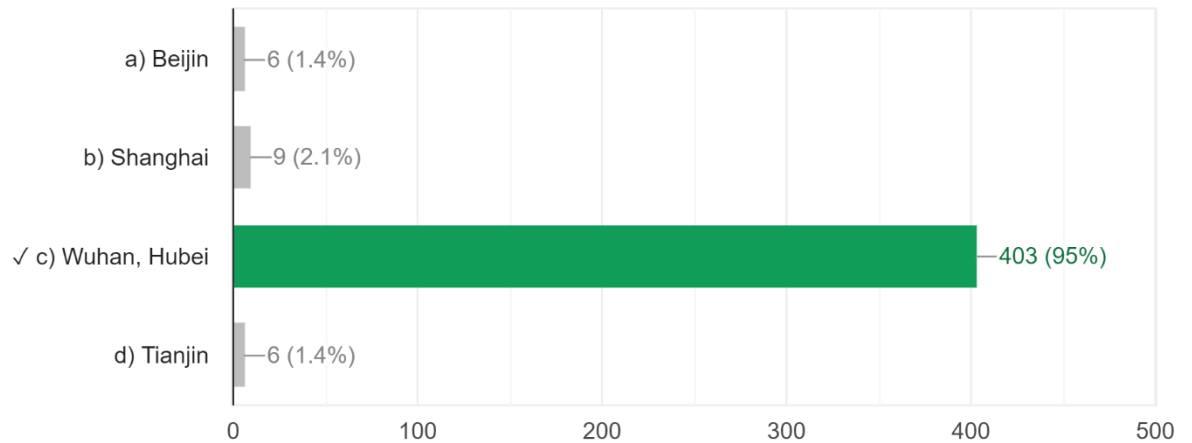
419 / 424 correct responses



The Graph interprets 419 correct responses out of 424, which means 98.8% of respondents are aware about the date on which the World Health Organization (WHO) announced the official name of Coronavirus i.e. COVID-19 and the rest of the 1.2% respondents gave wrong answers, which means they are not that much aware about this virus.

Q6. The first case of Novel Coronavirus was found in...

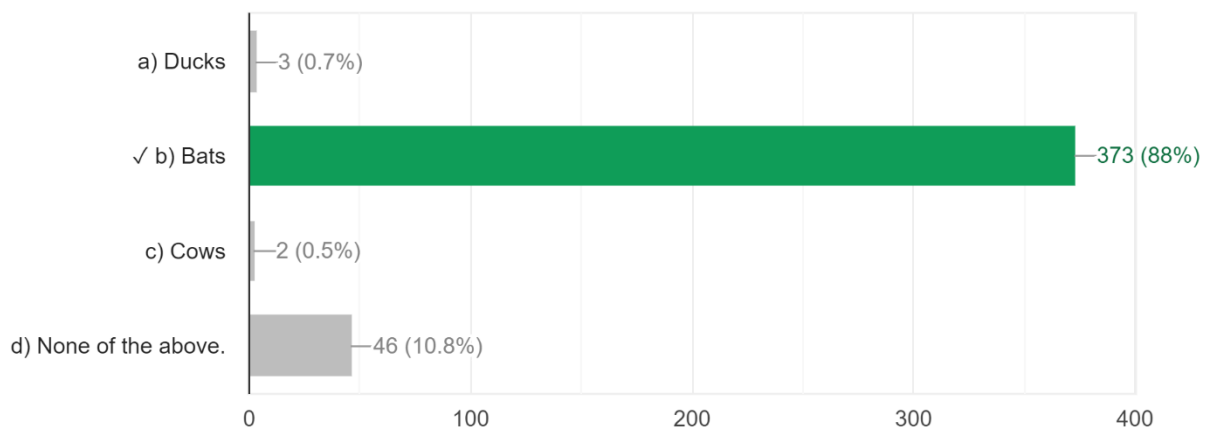
403 / 424 correct responses



The Graph interprets that 403 correct responses out of 424, which means 95% of respondents are aware about the first case of corona virus which was found in Wuhan, Hubei and the rest of the 5% respondents responded wrong answers, which means they are not aware about such Coronavirus.

Q7. From which of the following animals given below acts a host for COVID-19?

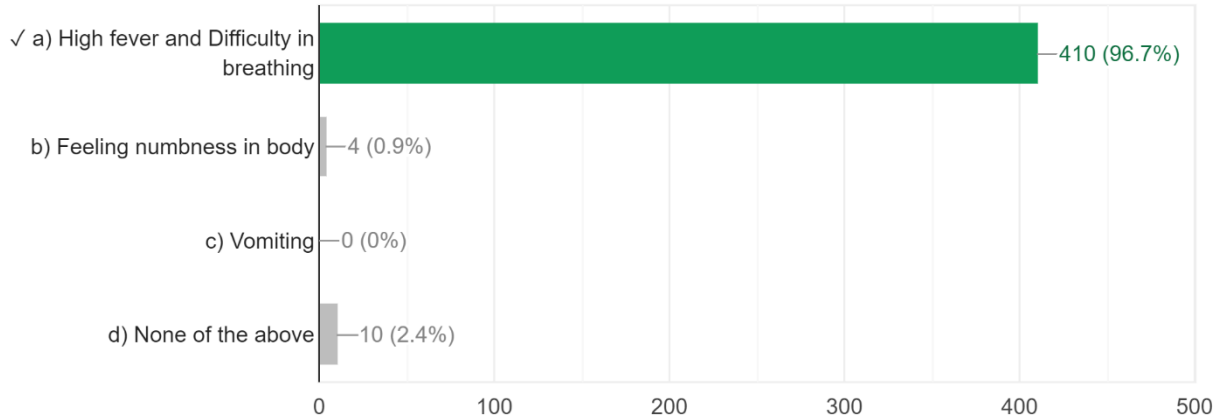
373 / 424 correct responses



The graph interprets 88% people are aware about host for COVID-19 but 12% respondents gave wrong responses.

Q8. What are the most common symptoms of infection caused due to coronavirus?

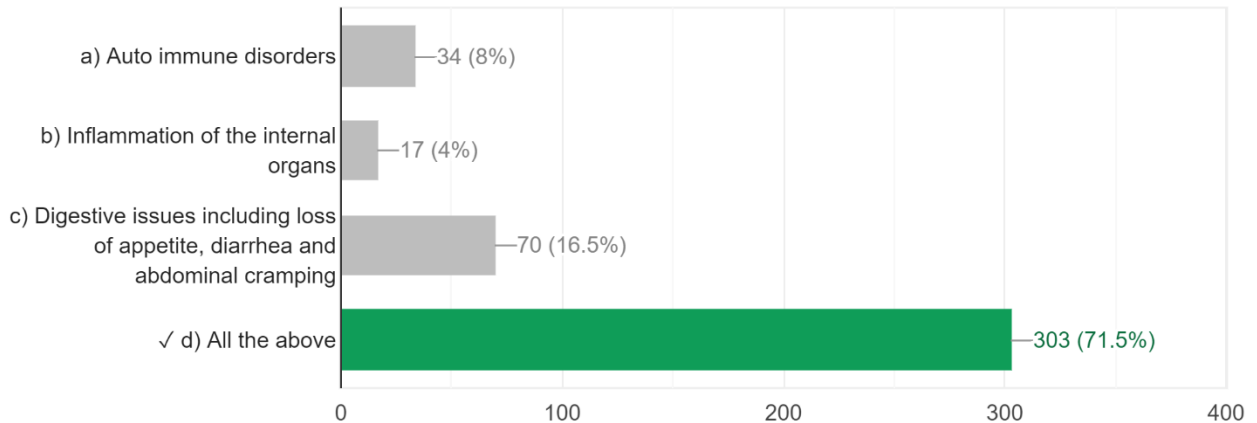
410 / 424 correct responses



The graph shows that 96.7% respondents are aware about the most common symptoms of infection caused due to corona virus.

Q9. What are the symptoms of weak immune system?

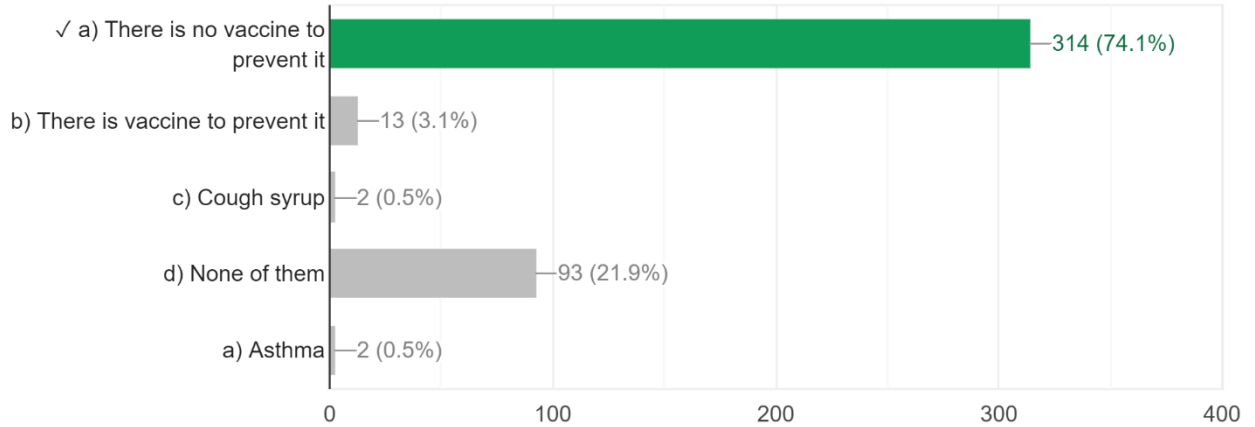
303 / 424 correct responses



The graph interprets that 71.5 % respondents know the symptoms of weak immune system but rest 28.5% respondents were not aware about immune system.

Q10. Is there any treatment for COVID 19?

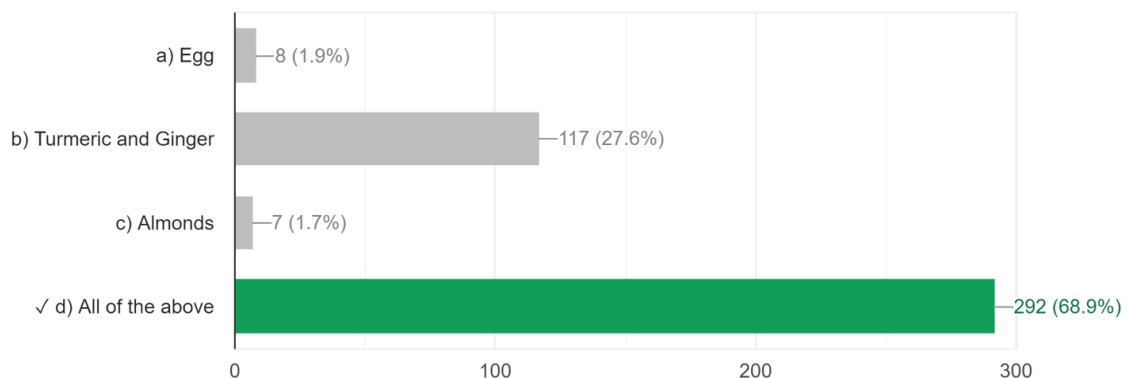
314 / 424 correct responses



The graph interprets how many people are aware how to boost our immunity. 68.9% respondents thought all of the above options are helps us to boost our immune system 31.1% respondents are not fully sure about it.

Q11. Which of the following boosts immunity?

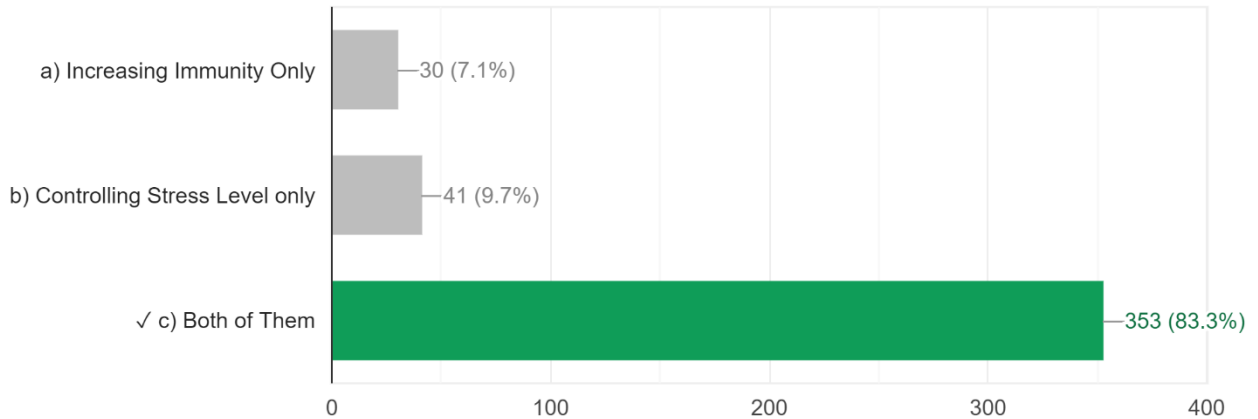
292 / 424 correct responses



68.9% respondents know which food can boost immunity and rest 31.1% were not fully aware about immunity boosters.

Q12. Whether proper meditation helps in increasing immunity and controlling stress level of body?

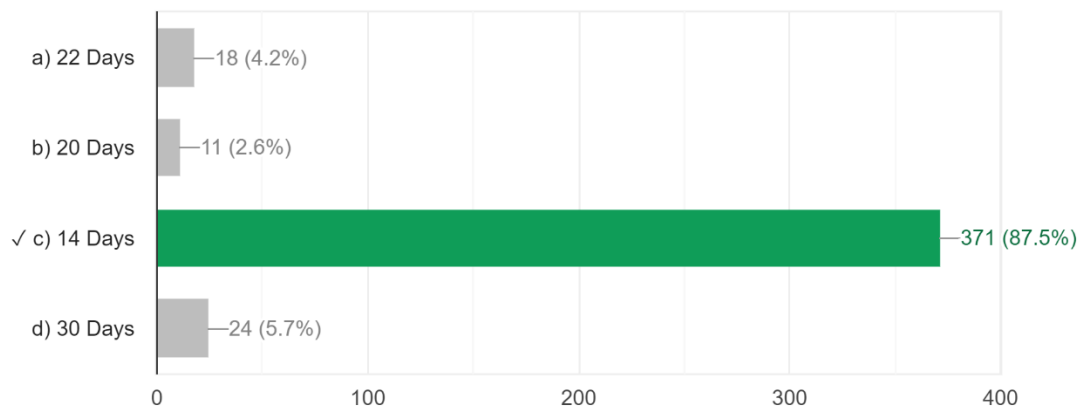
353 / 424 correct responses



This graph interprets how we do proper meditation helps in increasing immunity and controlling stress level of the body so the 83.3% of respondents thought both of them a and b option is correct because it boosts our immunity, with the meditation and controlling stress. But 17.7% respondents are not aware about it.

Q13. Self-isolation is very important to preventing the Corona virus from spreading and limits for:

371 / 424 correct responses

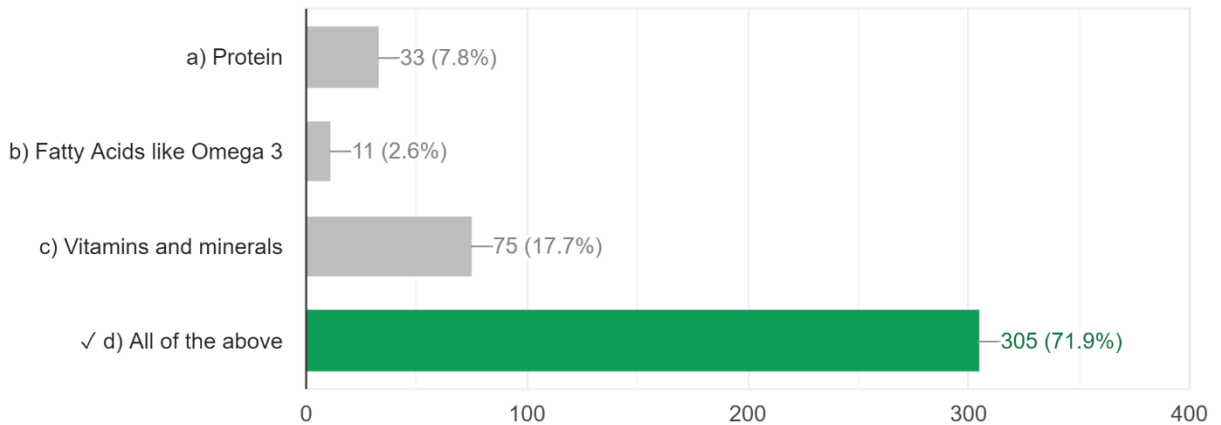


The Question deals with self-isolation being very important to prevent Coronavirus from spreading and limiting the virus. The options given in the question are 22 days, 20days, 14

days and 30 days. The people who gave the right answer are 87.5%, those who said 22 days were 4.2%, the ones who said 30 days are 5.7%.

Q14. What foods boost immunity?

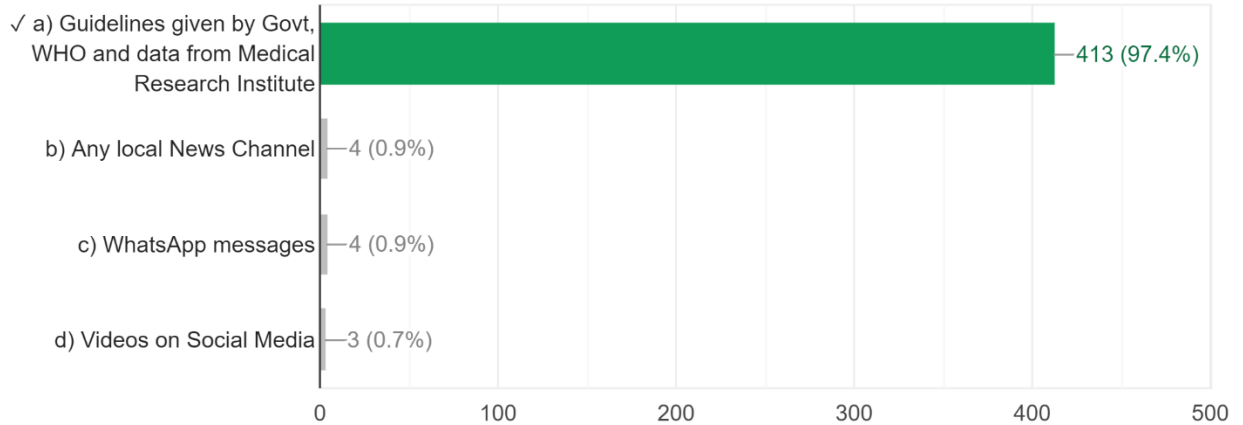
305 / 424 correct responses



This question is about what are the foods that boost immunity. The options given are protein, fatty acids like omega 3, vitamins and minerals and lastly all the above. The people who choose protein are 7.8%, the ones who choose fatty acids like omega 3 are 2.6%, the ones who chose minerals are 17.7% and the ones who choose the right answer were 71.9% and the answer is all of the above.

Q15. In this situation one should rely on which information?

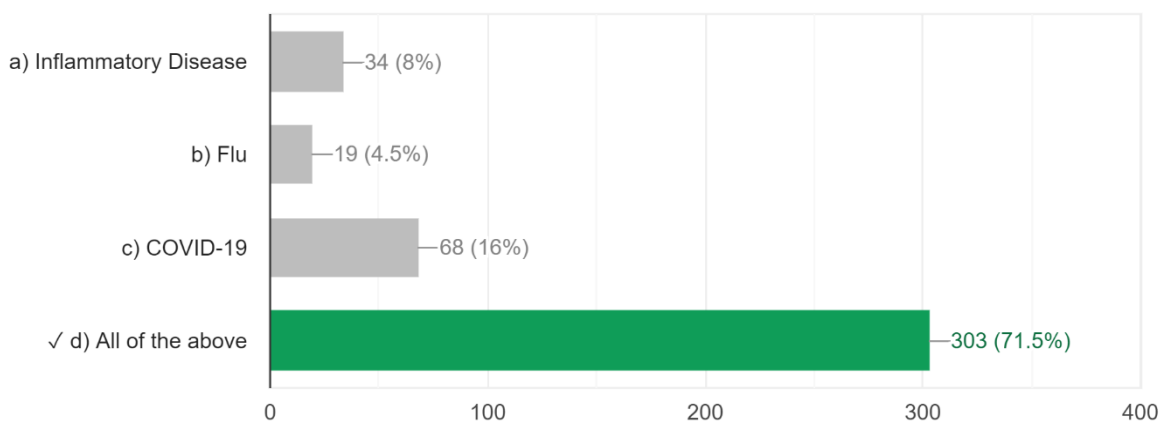
413 / 424 correct responses



This question is regarding the information gathering through various sources. The sources listed as options were Guidelines given by the Govt., WHO and data from Medical Research Institute, second option was Any local News Channel, third option was WhatsApp messages and Videos on Social Media. The people who chose the options a, b and c were 0.9%, 0.9%, and 0.7% respectively. Those who choose the right answer were 97.4%, the right answer being the (a) option, information from the Govt., WHO and Medical Research Institute.

Q16. Immune System is a complex network of cells, tissues and organs that work together to defend against germs. If Immune System does not ...perly then which following disorder will happen?

303 / 424 correct responses

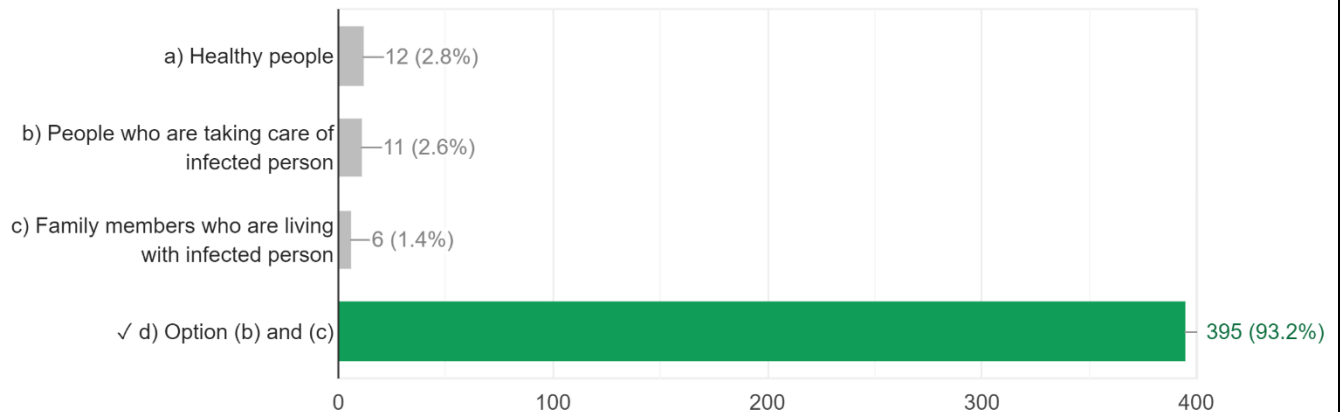




The graph shows that 71.5 % respondents have awareness about immune system and rest 28.5% considered that weak immune system is responsible for flu or other inflammatory diseases.

Q17. Mask is necessary for:

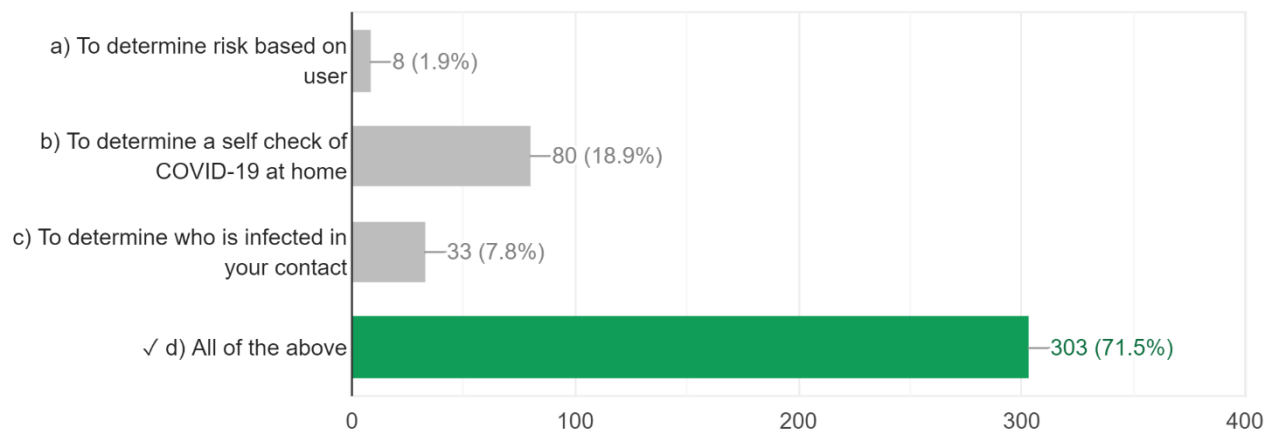
395 / 424 correct responses



This graph interprets that 93.2% respondents are aware about the necessity of mask rest 6.8% are not aware about use of mask.

Q18. Aarogya Setu App is beneficial for:

303 / 424 correct responses

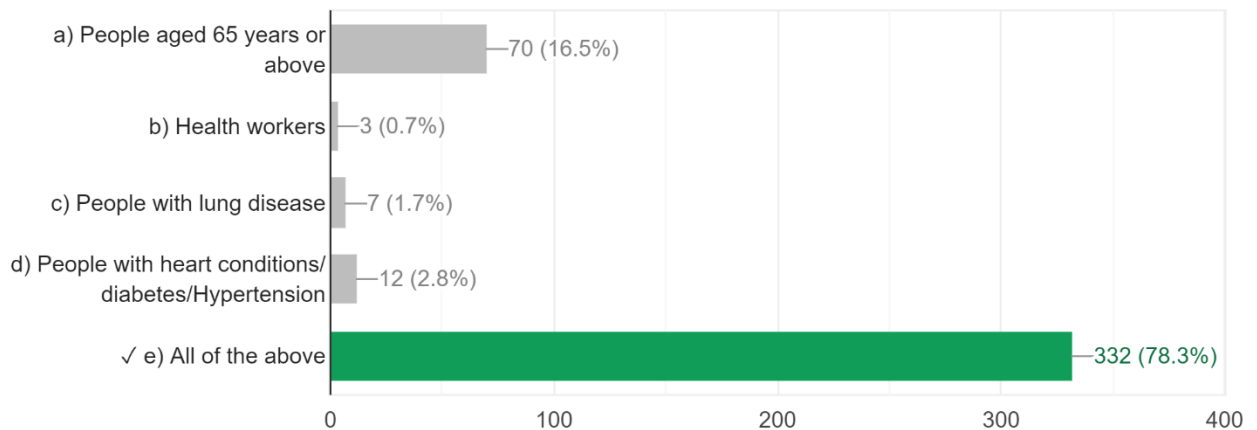


The graph interprets 71.5% respondents are aware about AarogyaSetu App, 1.9% respondents believe that it is useful to determine risk based on user, 18.9% believe that this app is useful

to determine self-check of COVID-19 at home and 7.8% thinks that it is useful to determine who is infected in their contact.

Q19. Who is at higher risk from this virus?

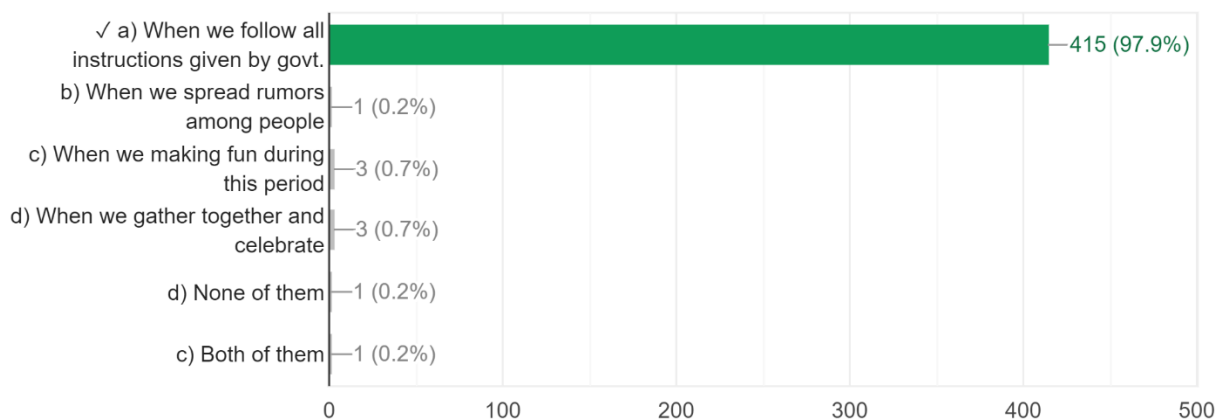
332 / 424 correct responses



The graph interprets 78.3% respondents gave correct response and they know what types of people are at higher risk from this virus. Rest 21.3% respondents considered only health workers or aged persons or people suffering from diseases are at higher risk.

Q20. How can we make this lock down period successful?

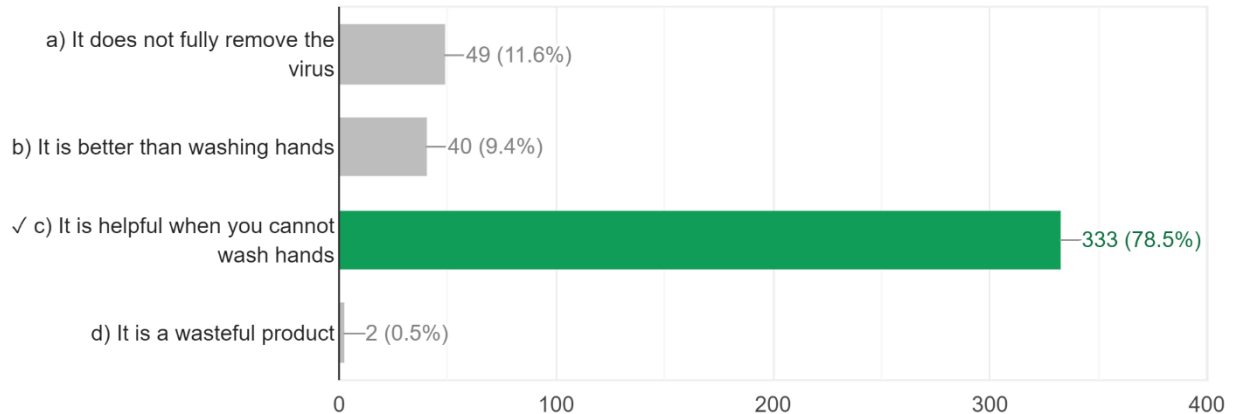
415 / 424 correct responses



The graph shows that 97.9% respondents think that when we follow all instructions given by government then we can make this lock down period more successful and 2.1 % respondents gave wrong response.

Q21. Can Alcohol based Hand sanitizing product help in killing COVID-19 Virus?

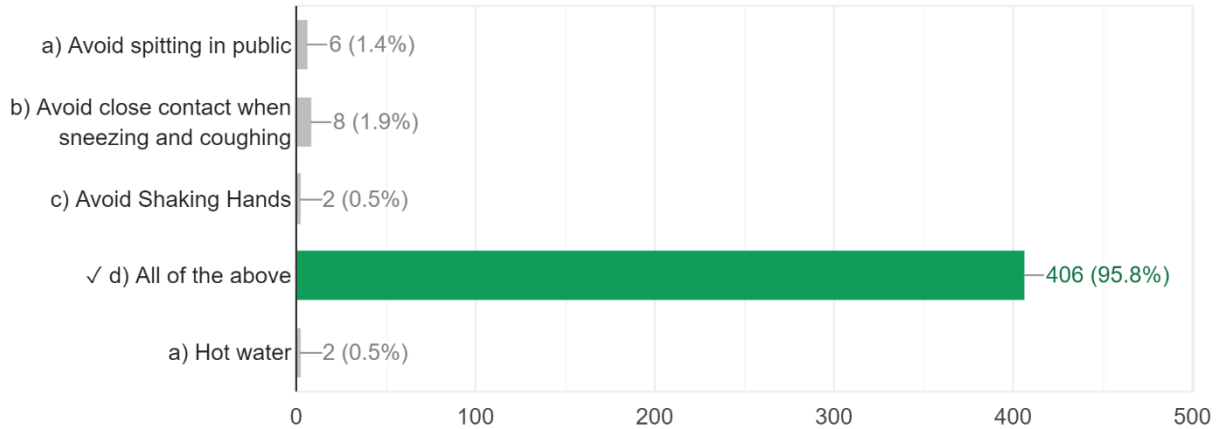
333 / 424 correct responses



We have received total of 424 responses and the above chart shows that out of 424 total respondents, 333 respondents (78.5%) are aware that Alcohol based hand sanitizing product help in killing COVID-19 virus when one cannot wash hands. Another 21.5% respondents were not aware about this.

Q22. How will you protect others from getting sick?

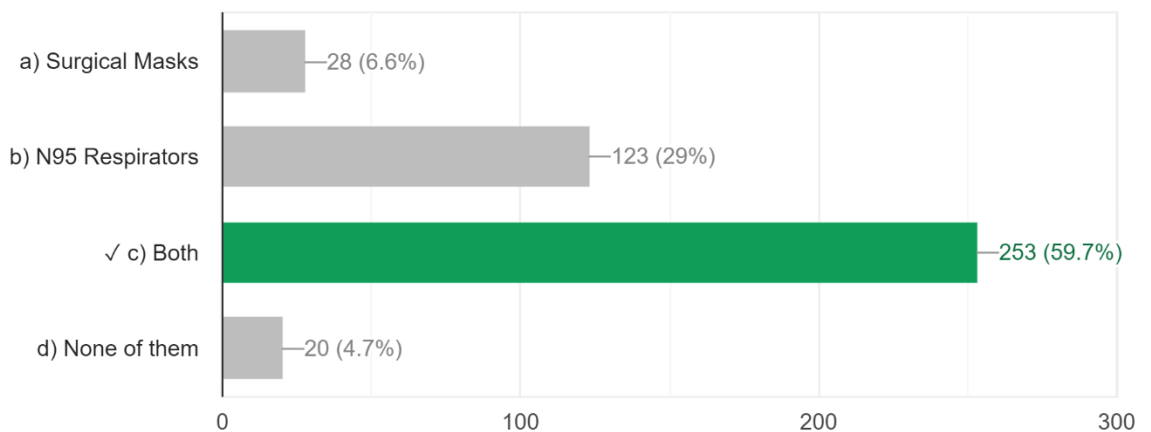
406 / 424 correct responses



We have received total of 424 responses and the above chart shows that out of 424 total respondents, 406 respondents (95.8%) were aware about how will you protect others from getting sick. Another 4.2% respondents were not aware about this.

Q23. What do you think which is the best face mask for you to protect you from COVID-19 viruses?

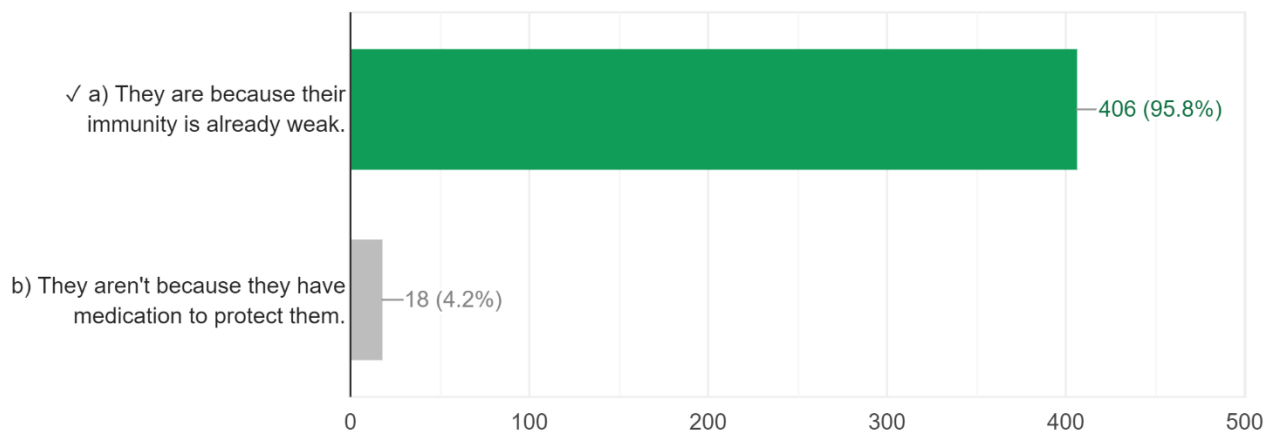
253 / 424 correct responses



We have received total of 424 responses and the above chart shows that out of 424 total respondents, 253 respondents (59.7%) were aware about the best face mask to protect from COVID-19 viruses. Another 40.3% respondents were not really clear about this.

Q24. Whether the Individuals with pre-existing illnesses are higher at risk of Coronavirus?

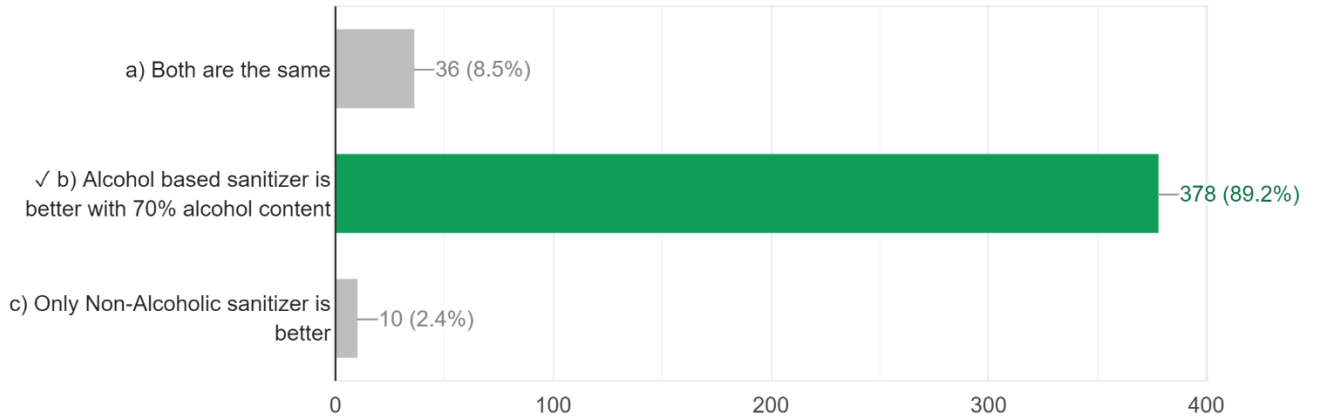
406 / 424 correct responses



We have received total of 424 responses and the above chart shows that out of 424 total respondents, 406 respondents (95.8%) were aware about whether the individuals with pre-existing illness are higher at risk of Coronavirus. Another 4.2% respondents were not really clear about this.

Q25. Is using alcohol based sanitizer better than non-alcohol based sanitizer?

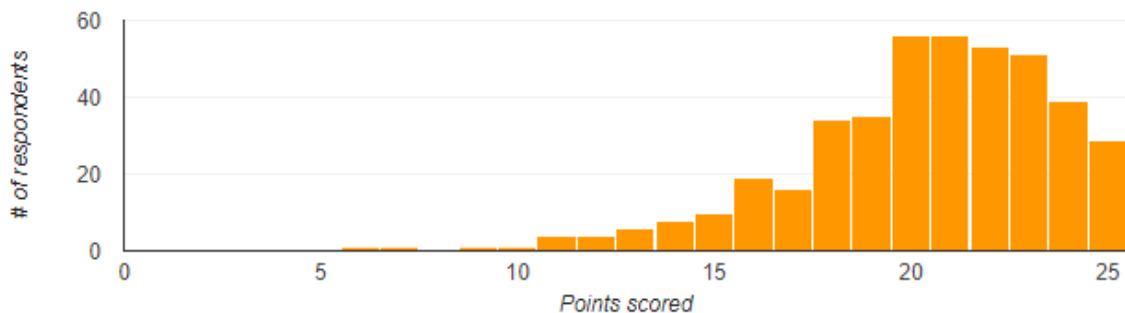
378 / 424 correct responses



The above chart shows that out of 424 total respondents, 378 respondents (89.2%) were aware about if using alcohol-based sanitizer better than non-alcohol-based sanitizer. Another 10.9% respondents were not really clear about this.

Average	Median	Range
20.31 / 25 points	21 / 25 points	6 - 25 points

Total points distribution



The above graph shows the range of scores is from 6-25. Average is 20.31 points and median is 21 point out of 25. We have divided these scores in three range namely 6-15, 15-20 and 20-25 points. This table depicts that 6.13% fall in Below average, 26.89% are in average and 66.98% are in above average.

Scores	6-15 Below Average	15-20 Average	20-25 Above Average
No. of Responses	26	114	284
Percentage	6.13%	26.89%	66.98%

We can conclude that 66.98% people were aware about health, hygiene and immunity boosters, 26.9% people had average awareness and 6.1 % people were less aware about health, hygiene and immunity boosters.

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