

A STUDY ON THE PERCEPTION OF PEOPLE TOWARDS VACCINATION OF COVID – 19 INTO THE CITY OF BHAVNAGAR.

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❖ INTRODUCTION

The corona virus disease 2019 (COVID-19) pandemic is being caused by the severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). SARS-CoV-2 first appeared in Wuhan (Hubei, China) in late 2019 and has quickly spread to 220 nations.

The pandemic has had a severe global impact, necessitating the implementation of mitigating programmes to curb the outbreak. Most countries used non-pharmaceutical treatments (NPIs) to decrease the disease's transmissibility, such as imposing mask policies, hand sanitization, social distance, travel restrictions, school closures, and partial or complete lockdowns.

So far, NPIs have been able to delay the disease's growth, but the most promising technique for containing the pandemic and providing hope for lower death and morbidity rates remains within medical technology's capabilities. Antiviral drugs and vaccinations are examples of such medical technology that are effective, safe, and economical. No antiviral medicines designed particularly for SARS-CoV-2 have been approved as of December 2020. Vaccines are one of the most effective and cost-efficient public health interventions ever developed, saving millions of lives every year. Scientists and pharmaceutical corporations are racing against time to create vaccinations after the genetic sequence of SARS-CoV-2 was deciphered in early 2020 and the WHO declared the pandemic in March 2020.

Vaccines have previously been developed through a sequence of steps that can take years to complete. Given the critical need for COVID-19 vaccines, enormous financial investments and scientific collaborations are now transforming vaccine development. This indicates that several

steps in the research and development process have been completed concurrently while still adhering to strict clinical and safety guidelines. Some clinical trials, for example, are examining numerous vaccines at the same time. This fast progress has been made possible by the size of the financial and political commitments made to the development of a vaccine. This does not, however, make the investigations any less rigorous.

The greater the number of vaccines in the development, the better the chances of success.

WHAT IS VACCINATION?

A vaccination is a living organism that gives active acquired immunity to a specific infectious disease. A vaccination typically comprises an agent that resembles a disease-causing bacterium and is made from weakened or dead microorganisms, their toxins, or one of their surface proteins. Vaccines can be prophylactic or preventative in nature. The procedure of giving vaccines is known as vaccination. Vaccination is a simple, healthful, and effective technique to prevent individuals from being sick with harmful diseases. It boosts your immune system by utilising your body's inherent defences to build resistance to illnesses. Vaccines instruct the immune system to produce antibodies in the same way as it does when a disease is present. Vaccines, on the other hand, do not cause illness or put you at danger of complications because they only include microorganisms that have been killed or weakened, such as viruses or bacteria.

VACCINES TYPE

Vaccines are available in a variety of shapes and sizes. Each one is designed to teach your immune system how to fight various bacteria and diseases that they can cause.

PERCEPTION TOWARDS VACCINATION

Understanding how people think about vaccination and how they feel about it can help with pandemic preparedness, and immunization can be a good way to protect yourself from COVID-19. With the introduction of the COVID-19 vaccination in several countries, it is critical to assess public acceptance of the vaccine. In India, however, information on people's desire to receive the COVID-19 vaccine is scarce. Such research will be useful in anticipating future vaccination uptake trends and, as a result, formulating methods to improve vaccine acceptance (and uptake following vaccine availability). India will not be far behind when it comes to mass

immunization, which has already begun in several industrialized countries. As a result, a few key questions must be addressed, such as "if individuals are willing to get vaccinated," and "whether the vaccine should be provided free of charge."

❖ **LITERATURE REVIEW**

- Coronavirus disease 2019 (COVID-19) has quickly spread over the world, killing about 1.7 million people. While many affluent countries have begun their vaccination campaigns, India is not far behind. However, little is known about Indians' desire to receive vaccinations. Between October 26, 2020, and November 10, 2020, a cross-sectional study was undertaken. Data was collected online via web-based linkages among adults aged 18 and up in India using a self-administered and semi-structured questionnaire. The minimum sample size was estimated using the proportion of people who were willing to receive the vaccine as 50%, a 95% confidence interval, and a 5% alpha error—the sample size was 384. During the study period, however, 467 people completed the survey. SPSS version 21 was used to analyse the data. According to an online poll performed across India, nearly 3 out of 10 persons are unwilling to be vaccinated against COVID-19. This information can help policymakers devise multifaceted strategies to boost people's willingness to get vaccinated against COVID-19.

(Kishore, Jugal; U, Venkatesh; Ghai, Glory; Heena, ; Kumar, Prem,2021)

- SARS-CoV-2, a newly discovered coronavirus, causes Coronavirus Disease 2019 (COVID-19). The Malaysian government intends to obtain COVID-19 vaccine from a variety of agencies and corporations in order to vaccinate at least 70% of the country's population. The goal of this study was to investigate Malaysian adults' knowledge, acceptance, and perceptions of the COVID-19 vaccine. An online survey was conducted for two weeks in December 2020. A bilingual, semi-structured questionnaire was set up using Google Forms and the generated link was shared on social media (i.e., Facebook and WhatsApp). A total of 1406 respondents participated, with the mean age of 37.07 years (SD = 16.05) years, and among them 926 (65.9%) were female. Sixty two percent of respondents had poor knowledge about COVID-19 vaccine (mean knowledge score

4.65; SD = 2.32) and 64.5% were willing to get a COVID-19 vaccine. Even though knowledge about vaccine COVID-19 is inadequate, the majority of the respondents were willing to get vaccinated. This finding can help the Ministry of Health plan for future efforts to increase vaccine uptake that may eventually lead to herd immunity against COVID-19.

(N, Mohamed,; H, Solehan,; M, Rani,; M, Ithnin,; C, Isahak., 2021)

- The goal of this study was to learn more about merchants' knowledge, behaviour, and attitudes toward getting the COVID-19 vaccine in the Lapai local government area of Niger State, Nigeria. The study used a descriptive survey research design. In the Lapai daily markets, 200 respondents were randomly selected. To sample 200 people, a self-created questionnaire was employed as a research tool. The research topics were analysed using descriptive statistics such as frequency counts, percentages, and mean. The hypotheses were tested using the Chi-square goodness-of-fit test at the 0.05 level of significance. The majority of traders were familiar with COVID-19 and followed the COVID-19 guideline process to a degree. The findings also demonstrated that traders had a negative attitude toward the COVID-19 vaccination. Traders' perceptions were mainly negative and did not comply to COVID-19 guideline guidelines, and they were not enthusiastic about the vaccination, believing it might cause side effects after administration. Traders have come to the conclusion that only the identical vaccine given to Nigeria's president will be accepted. The study suggests, among other things, that traders be educated about the virus so that they can change their unfavourable habits and follow the COVID-19 guideline protocols. To achieve a COVID-19-free society, the necessity of immunisation for merchants and its long-term advantages must be promoted.

(M.O.Salomi, 2021)

- The study's goal was to find out how school stakeholders felt about the COVID-19 immunisation in terms of being ready to reopen schools when the ban on face-to-face classes was lifted in March 2020. The advertisements were run entirely on the internet, utilising social media channels. The poll received responses from a total of 2034 people.

Teachers dominated the participants, with the majority hailing from Luzon and ranging in age from 13 to 19, as well as female participation. The most common reason for vaccine trust is that "they believed the vaccine would offer them immunity from the virus COVID-19," while "the vaccine might have a possible influence on genetic make-up" was the most common cause for COVID-19 apprehension. Furthermore, when participants were divided into groups based on their profile, region, sex, and age, their confidence was slightly higher than that of individuals who were hesitant to obtain the COVID-19 vaccines. Only their gender shows a significant relationship with their COVID-19 vaccine confidence and reluctance among the demographics of the individuals. This study suggests that school-based health services be improved, and that vaccination of schoolchildren be integrated into the school-based management system in collaboration with health practitioners.

(D.Robledo, A.Lapada, F. Miguel, Z.Alam, 2021)

- Given that children with chronic health conditions are more likely to contract COVID-19, it's critical to understand the factors that influence parents' decisions about whether or not to vaccinate their children. The study's goals were to determine parental intent to have their asthmatic kid vaccinated against COVID-19 and the factors that influenced their decision. The primary endpoint of this study, which took place in August 2020, was parents' responses to a question about whether they would get their child vaccinated if a COVID-19 vaccine was available. Participants were also polled on whether or not they planned to get vaccinated. Sociodemographic, clinical data (e.g., the prevalence of other chronic conditions), psychological, cognitive, and risk perception associated to COVID-19 were all investigated as independent factors. A total of 305 participants completed the survey. Overall, 19.1% of participants reported being unlikely or very unlikely to vaccinate their child against COVID-19 if a vaccine was available. There was a strong relationship between likelihood of not intending to have one's child vaccinated and personal intent not to get vaccinated. These findings are essential in planning for the communication and dissemination of COVID-19 vaccination information to parents, especially for children with asthma or other chronic medical conditions

(O. Drouin, C. Montmarquette, Y. Arnaud, P. Fontaine, R.Silva, March, 2021)

- Because high vaccination rates are required to achieve herd immunity and fight the pandemic, sociodemographic factors related with vaccination intention or hesitation must be identified. Our study's purpose was to see if there were any gender variations in the desire to get vaccinated against COVID-19. To investigate gender variations in COVID-19 vaccination intention, we did a systematic review and meta-analytical computations. Between November 19th 2020 and January 7th 2021, PubMed, Web of Science, and PsycInfo were searched for studies that reported absolute frequencies in COVID-19 vaccination intention segregated by gender or statistical testing for gender differences. A quality assessment was carried out, and meta-analyses were used to calculate averaged odds ratios comparing vaccine intenders in men and women. Sixty studies were included in the review and data for 46 studies were available for meta-analytic computations. A majority (58.3%) of papers reported men to have higher intentions to get the COVID-19 vaccine. The findings imply that this impact exists in a number of nations around the world, and that the difference is greater in health-care professional samples than in undefined general population samples. Men are more willing to get the COVID-19 vaccine, according to this systematic review and meta-analysis. It is necessary to investigate and address the reasons for women's lower vaccination intentions.

(S. Zintel, C. Flock, A. Arbogast, A. Forster, C. Wagner, M. Sieverding, 2021)

- The outcomes of recent research studies investigating the impact of the Bacille Calmette Guérin (BCG) vaccination on COVID-19-related illnesses and deaths are presented and summarised in this publication. Since the beginning of the COVID-19 pandemic, this work has focused on the evolution of research findings relating to COVID-19 illness pattern and the stated association between mandatory BCG policy and COVID-19. We looked at 47 peer-reviewed and non-peer-reviewed papers that looked at the effect of BCG immunisation on COVID-19 infection and death rates. The review of published literature is divided into phases of the COVID-19 disease's evolution, which are connected to time from the disease's inception and focus on disease transmission. We distinguish three significant phases of COVID-19 evolution in our analysis, and we categorise the published research publications into these phases:

- Initial Phase (February to April 2020), Mid-Phase (May to July 2020), and Maturity Phase (August to October 2020) (August 2020 and later). While a large proportion of studies found support for the hypothesis that BCG vaccinated populations have a slower spread of COVID-19, indicating some non-specific immunity related advantage to these populations in the early phase, a larger proportion of studies found weak to no relationship in the mid-phase and maturity phase.

(S. Chakraborty, A. Onuchowska, S. Shivendu, 2021)

- This study explores a static game in which a player decides whether or not to get vaccinated against COVID-19 at the initial moment, and then nature intervenes. The player considers the projected expenses and benefits of becoming vaccinated in terms of money when making his decision. Because of the relative rapidity with which the first vaccinations hit the market, some people are apprehensive about the potential negative effects of vaccination, and as a result, some people are hesitant to take the vaccine. The study concludes that, based on information about the pandemic's progression and specific assumptions about the risk of virus sequelae and vaccine side effects, vaccination appears to be the best option. To make the decision to be vaccinated non-optimal, a low probability of contagion and a very low vaccine efficacy rate are required.

(C. Contreras, J. Angulo, 2021)

- Acceptance of the COVID-19 vaccine is required for COVID-19 pandemic control. The study quality was appraised using the Appraisal method for Cross-Sectional Surveys, which included original survey studies that investigated acceptance, willingness, intention, or uptake of COVID-19 immunization. Based on sociodemographic variables, we evaluated global acceptance of COVID-19 immunization and made comparisons across people, countries, time trends, and subgroups. A total of 9547 papers were found, with 238 articles with 2,484,071 participants being eligible for review. The overall acceptance rate of COVID-19 immunization was 64.1 percent in the 185 high-quality studies (95 percent). Patients with chronic conditions had the highest acceptance rate (69.3%), followed by general residents and healthcare workers, who had acceptance rates of 64.4 percent and 62.8 percent, respectively, and pregnant/breastfeeding women, who

had the lowest rate (64.4 percent) (56.5 percent). The rate of acceptance for inhabitants varied by country, ranging from 19.9% to 92.1 percent. Females, those over 60, black people, those with a lesser education, and those with a lower income had lower acceptance of COVID-19 vaccination than their male counterparts. COVID-19 vaccination acceptance varied across different populations and countries, and changed over time. Continuous vaccine acceptance monitoring is necessary to inform public health decision making.

(Q. Wang, S. Hu, October, 2021)

- COVID-19 vaccination requirements have been enforced on students at a number of schools and institutions. The majority of these laws came with the ostensible acknowledgement of medical and religious exemptions. Despite the fact that the findings and insights offered below should be applicable in whole or in part to any state with antidiscrimination legislation protecting college students, this article will focus on New York's Human Rights Law. It will show how religious exemptions can and do break the law by illegally discriminating against students based on their religious beliefs. It will look at one policy that is particularly ill-advised and troublesome (Hofstra University's) and one that follows best practises (Syracuse University's). For the time being, the implementation of COVID-19 vaccine obligations is fraught with uncertainty. Vaccination requirements from private companies may or may not be legal, and religious exemptions may or may not be required. What is obvious, however, is that a religious exception to a private college or university vaccination obligation must be nondiscriminatory in New York, and most certainly in any other state where students are protected from discrimination.

(R.J. Colombo, 2021)

❖ **RESEARCH METHODOLOGY**

OBJECTIVES

- To study the perception of people towards different vaccines.
- To study the reasons that led to the vaccination decision of people.

- To study the difference of taking vaccines decisions among different socio – demographics.

PARTICIPANTS

The Population for this research has been the people of the Bhavnagar City. A random sample of 300 participants has been selected from the city.

MEASURES

For conducting the research, a well-structured questionnaire was framed into the google forms. These questionnaires were then spread among the respondents through the help of Whatsapp and E-mail. The responses were collected online with the help of the google form link.

HYPOTHESIS

The following hypothesis was created which are to be tested in order to arrive at a research conclusion.

- Participants consider vaccination to be important or not.
- Participants feel safe after vaccination or not.
- Participants would recommend others to get vaccinated or not.

STATISTICAL ANALYSIS

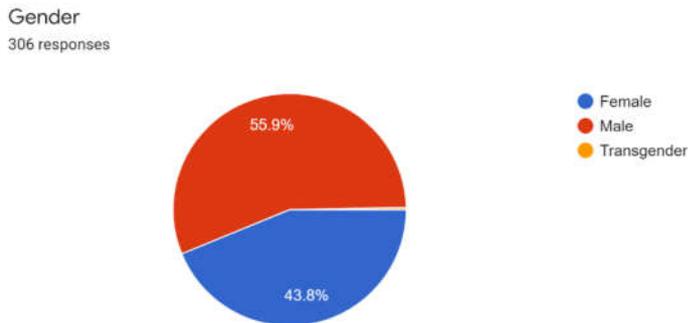
The researcher has analyzed the data using the SPSS software where different percentages and frequencies, tests and analysis were conducted to find out the correlation analysis for different parameters of the hypothesis.

❖ DATA ANALYSIS

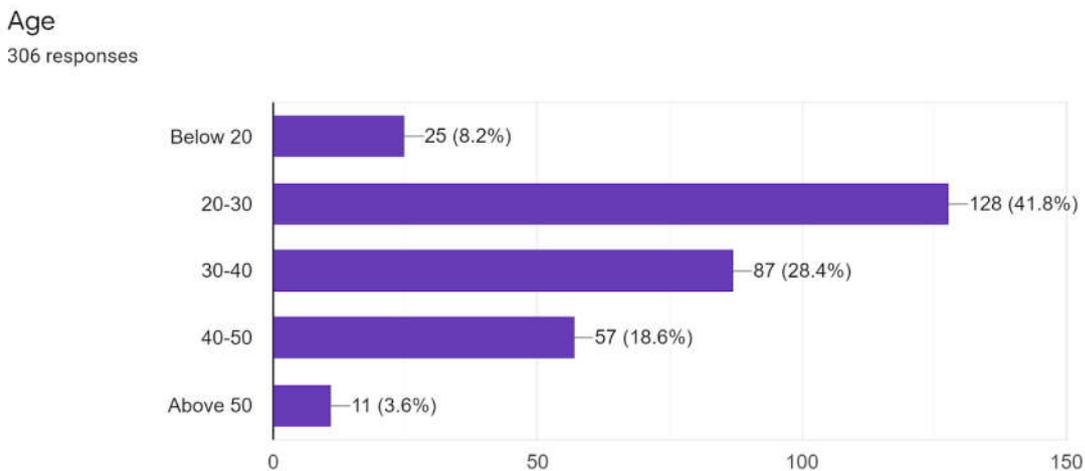
1) Demographic Information

The Demographic information such as gender, age, income, occupation was collected.

- i) The results showed that out of the total number of the respondents 59% were male,40% were females and the remaining 1% were transgender.



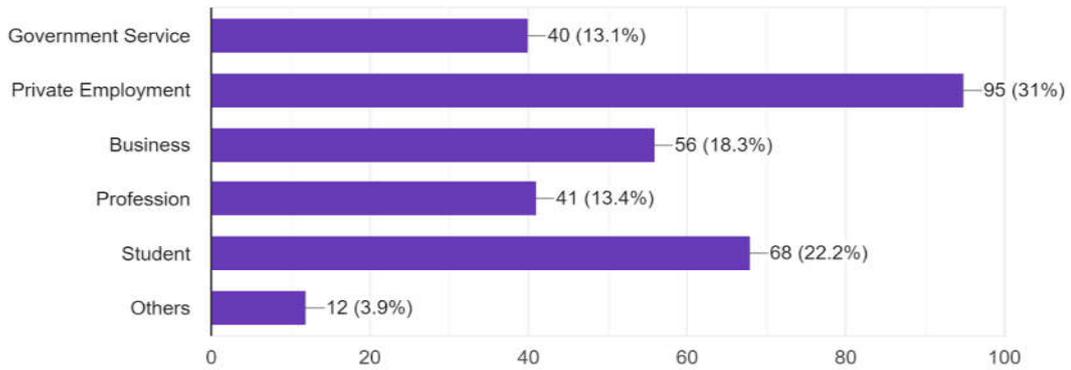
ii) The results showed that out of the total number of the respondents 8.2% were below 20, 41% were between 20-30 age group, 28% were between the age group of 30-40, 18% were between the age group of 40-50 and the rest were above the 50 years of age.



iii) The results showed that out of the total number of the respondents 13% were Govt. Employed, 31% were employed into private jobs, 18% had their own business, 13% were into profession of any kind and the 22% were students. The rest 3% were others.

Occupation

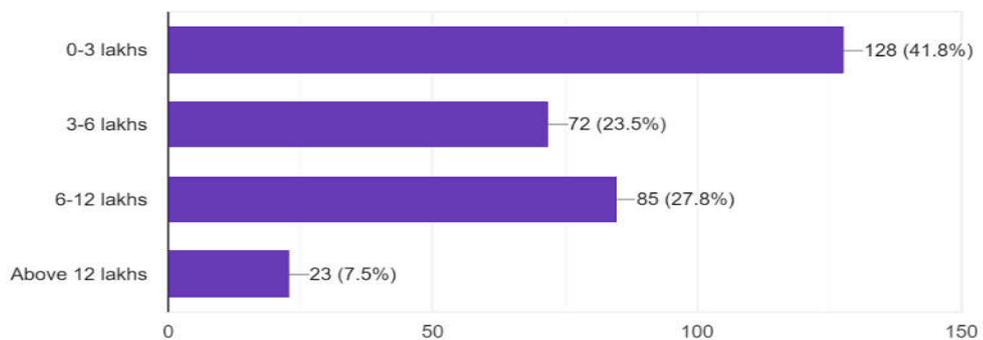
306 responses



iv) The results showed that out of the total number of the respondents 41.8% belonged to the income group of 0-3 lakhs, 23.5% belonged to the income group of 3-6 lakhs, 27.8% belonged to the income group of 6-12 lakhs, whereas the rest 7.5% earned above 12 lakhs.

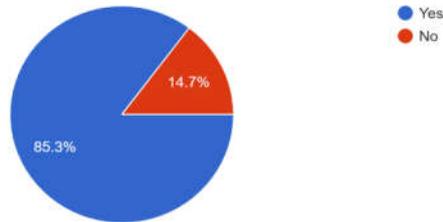
Income (per annum)

306 responses



5) Do you feel safe after vaccination?

Do you feel safer after vaccination?
306 responses

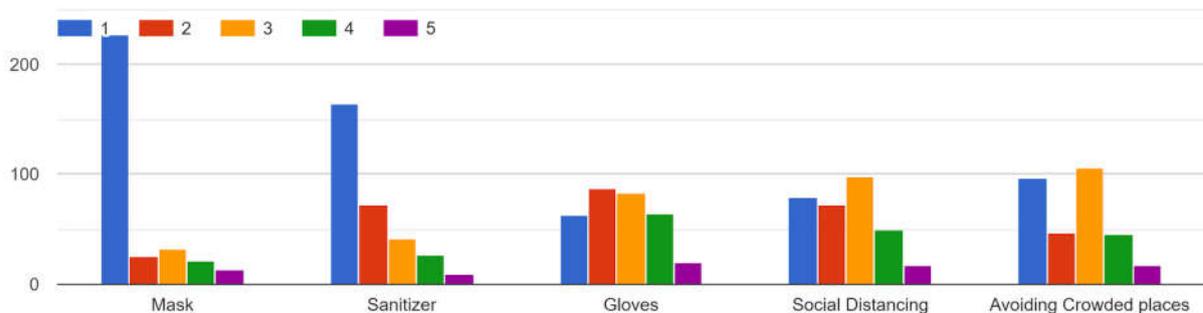


The study also analyzed that whether the respondents felt safe after the vaccination or not.

This section shows that 85.3% of the respondents feel safe after getting themselves vaccinated. However, it also shows that the rest 14.7% does not feel safe even after getting vaccinated.

6) What precautions do you take besides vaccination?

If yes, what other precautions do you regularly take? (Consider Rate 1 as 'Always')

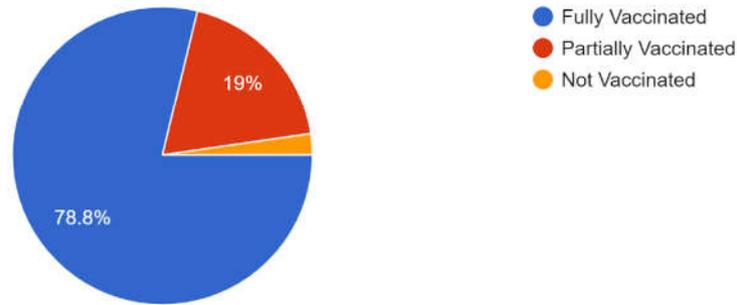


Besides the vaccination, there are other many factors/precautions needed to be taken in order to be safe, like wearing masks, using sanitizers, avoiding crowded places etc.

This section of the study shows that maximum of the respondents used masks as their other precaution beside getting vaccinated. The next preference was given to the use of sanitizer. At third place in the precautionary measures was avoiding the crowded places, followed by the social distancing. The use of gloves were least preferred by the respondents.

7) Have you been vaccinated?

Have you been vaccinated?
306 responses

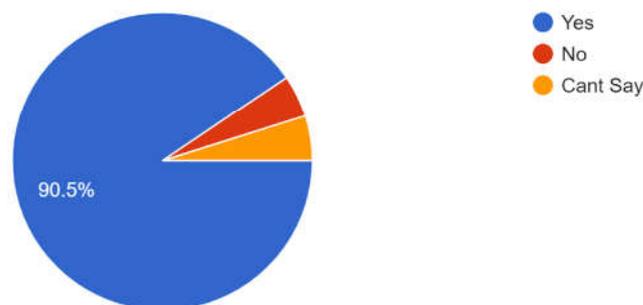


The study also tried to find the percent of the respondents getting fully vaccinated.

This section showed that 78.8% were fully vaccinated respondents, while 19% were partially vaccinated and the rest were yet not vaccinated.

7) Would you recommend others to get vaccinated or not?

Would you recommend others to get vaccinated as early as possible or not?
306 responses



The study also tried to analyze whether the respondents recommended others to get vaccinated or not.

In this section, it showed that 90% recommended to others to get vaccinated. The rest comprises of a negative response and the neutral response.

❖ **CONCLUSION**

The research regarding the perception towards vaccination into the city of Bhavnagar showed a positive result. It confirmed that out of the total respondents, maximum were vaccinated. It also showed that the main reason for getting the vaccination or deciding factor for the vaccines was the increase in the Covid – 19 cases. Also, it confirmed that beside vaccination, people also preferred taking other precautionary measures into regular life like wearing masks, using sanitizers, avoiding crowded places, maintain social distance etc.

Thus, the majority of the research shows that people have started taking vaccination drives seriously and prefer to get vaccinated. Though there are cases of getting infected with covid-19 even after the vaccination, but still the preference to get vaccinated is seen positively among the people of the city.

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