

What is the Perception of Covid 19 in our community? - A study on level of awareness in the community and assessment of various socio demographic parameters.

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Abstract:

Beginning with the index case in Wuhan, COVID-19 has evolved into a global pandemic, infecting people of nearly 216 countries worldwide. Apart from the toll the disease has taken on the health of humans worldwide, there is an unsaid fear due to the threat to livelihood. In this context we have attempted to assess the awareness among people regarding the symptoms of COVID-19 and its prevention. This reliable questionnaire

evaluates parameters pertaining to various socio-demographic aspects of COVID-19. This study aims to assess the current level of awareness of COVID 19 among patients visiting General Surgery department in Saveetha medical college and hospital through a well-designed questionnaire. The data was collected in person from a sample of 300 respondents during the peak of this pandemic.

The main objective of this study was to study the COVID-19 awareness and prevention methods among patients and attenders coming as out-patients and in-patients in General Surgery department, Saveetha medical college and hospital. Majority of the study participants were from suburban regions and this study revealed that most participants were not adequately aware about COVID-19 transmission and prevention methods. Age, education and occupation were significant factors that improved the level of awareness.

Empowering the public with information regarding the epidemiology of COVID-19 is essential. Medical professionals can be helpful in educating other groups and they can also communicate with health care providers in order to control COVID-19 outbreak. This study will help the government understand and handle this COVID-19 virus pandemic and in turn control the COVID-19 outbreak which is crucial for making frontline policies and helping society cope with the current situation.

Aims:

- To study the COVID-19 awareness among patients.
- To compare patient's knowledge about COVID-19 in different demographics.
- To assess the level of awareness in the community and efforts taken by government and allied organizations.

Materials and Methods:

The data was collected by a questionnaire from patients and attenders coming to the General Surgery department from different demographics.

Discussion :

Comparison of the public awareness and level of knowledge about COVID-19 with other pandemic's along with the efforts taken by government and other organizations.

Conclusion:

This study highlights the efficiency of the government health education process.

Introduction:

In general, there is a deficiency of studies on the awareness and attitude of the people towards infectious diseases. Novel Coronavirus or COVID 19 is a new strain of virus infecting the humans. COVID-19 is transmitted from person-to-person like the seasonal influenza virus and may cause similar symptoms. There is no specific treatment for this virus. Nobody has prior immunity to this strain which, in theory, means that the entire human population is potentially susceptible to COVID-19 infection. In December 2019, the first case of a new

contagious disease was diagnosed in the city of Wuhan in China[1]. Within a short period of time the outbreak developed exponentially into a pandemic that infected millions of people, with a global death toll of more than 500,000 during its first 6 months. Eventually, the novel disease was named coronavirus disease 2019 (COVID-19), and the new virus was identified as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Similar to all known pandemics throughout history, COVID-19 has been accompanied by a large degree of fear, anxiety, uncertainty and economic disaster worldwide. There is neither an approved vaccine nor fixed treatment protocol to prevent infection or cure for this highly infectious disease. Past pandemics were caused by a wide range of microbes, primarily viruses, but also bacteria. Characteristically, a significant proportion of them originated in different animal species (zoonoses). Since an understanding of the microbial cause of these diseases was unveiled relatively late in human history, past pandemics were often attributed to strange causes including punishment from God, demonic activity or volatile unspecified substances. Although a high case fatality ratio was common to all pandemic diseases, some striking clinical characteristics of each disease allowed contemporaneous people to clinically diagnose the infection despite null microbiological information [1]. In comparison to past pandemics, SARS-CoV-2 has tricky and complex mechanisms that have facilitated its rapid and catastrophic spread worldwide. There is not enough epidemiological information at this time to determine how easily and sustainably this virus spreads between people, but it is currently estimated that, on average, one infected person will infect between two and three more. The virus seems to be transmitted mainly via respiratory droplets that people sneeze, cough or exhale. The virus can also survive for several hours on surfaces such as tables and door handles[1]. The incubation period for COVID-19 is estimated at between 2-14 days. At this stage, we know that the virus can be transmitted when people who are infected show flu like symptoms which ranges in clinical presentation from a mild upper respiratory illness to rapidly progressive pneumonia and multi-organ failure. The symptoms are fever, cough, difficulty breathing, muscle pain and tiredness. More serious cases develop severe pneumonia, acute respiratory distress syndrome, sepsis and septic shock that can lead to death[2].

In addition to this ARDS picture there are various atypical presentations of COVID-19 making the range of clinical presentation of disease diverse and confusing to the treating physician.

People who are at greater risk of developing severe symptoms are the elderly and those with co-morbidities such as hypertension, diabetes, cardiovascular disease, chronic respiratory disease and cancer[3]. Disease in children appears to be relatively rare and mild. There is no published evidence yet on the severity of illness among pregnant women after COVID-19 infection. [2].With a lack of fixed treatment protocol, treatment is mainly symptomatic.

There is no specific treatment or vaccine available, so providers treat the clinical symptoms (e.g. fever, difficulty breathing) of patients[3].

Aims:

- To study the COVID-19 awareness among patients.
- To compare patient's knowledge about COVID-19 in different demographics.
- To assess the level of awareness in the community and efforts taken by government and allied organizations (through advertisements, radio, broadcast, news).
- To assess the compatibility of people in various demographics to receiving knowledge about COVID-19

Materials and Methods:

A well designed COVID 19 pandemic questionnaire was distributed among over 300 participants. The study was conducted between the months of June and August 2020 at the peak of COVID-19, to know the awareness about COVID-19. The questionnaire was distributed by the admitting doctors to the patients coming to General Surgery department in Saveetha medical college and Primary health center. Since, it was not feasible to conduct a community-based national sampling survey during this critical period; we decided to collect the data online through a Google survey. The self-reported questionnaire is divided into three sections. The first part is designed to obtain background information, including demographic characteristics (age, gender, locality). The community/locality is defined as Rural (100-300/Sqkm), Town (300-1,000), City (more than 1,000/Sqkm). The second part of the survey consists of questions that address the COVID-19 awareness (reliable sources of information, symptoms, modes of transmission, treatment, preventive measures). The third part of the survey consists of questions that address the preparedness to fight against COVID-19. The questionnaire was designed in English, and has been translated to the local language with the help of attending doctors (Annexure-1).

Results:

As demonstrated in Fig:1,2 61% were males and 39% were females of which 29.7% were from rural areas, 54.5% from towns and 15.8% from cities.

Figure1: Gender/Age distribution

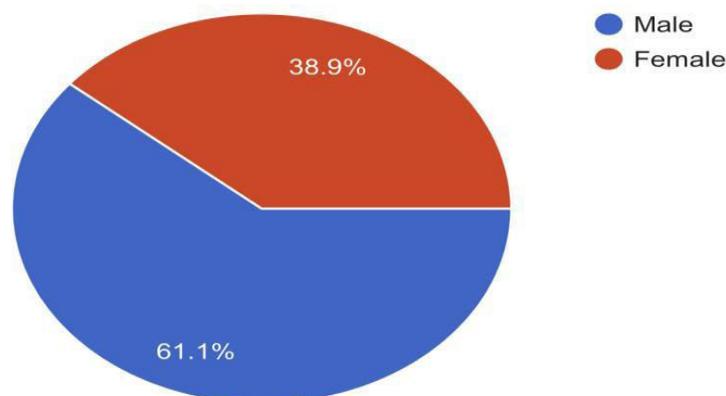


Figure2: Demographics of study population showed the clustering of patients from town

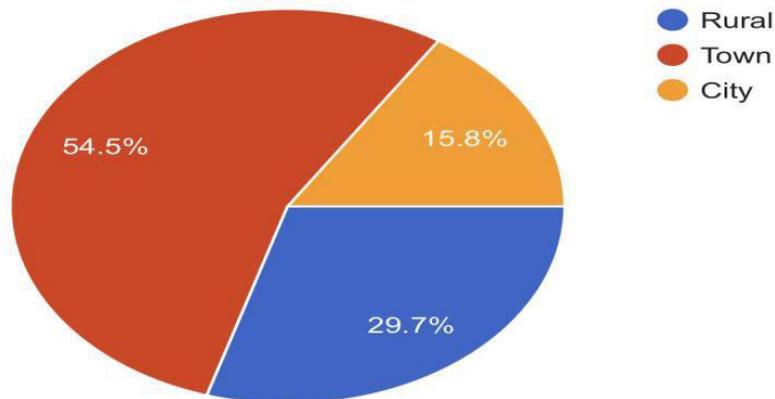


Table 3: Table on awareness about corona.

Have you heard about corona virus?	No	Yes	Total
		100.0	
City	0.00%	%	100.00%
		93.33	
Rural	6.67%	%	100.00%
		100.0	
Town	0.00%	%	100.00%
Grand Total	1.99%	98.01	100.00%

As shown in Fig:3, Table 3, Respondents when asked if they have heard about corona virus. Most of them were aware of the term except 6.67% people from rural population. This widespread awareness is possible due to extensive health awareness of government.

Table 4: Table on patient’s relatives getting affected by corona.

Do you know anyone in your family/friends affected by corona?			Grand Total
	No	Yes	
		27.66	
City	72.34%	%	100.00%
		17.78	
Rural	82.22%	%	100.00%
		21.21	
Town	78.79%	%	100.00%
Grand Total	78.81%	21.19	100.00

As shown in Fig:4, Table 4, Respondents when inquired about whether any of their family members have been affected by corona, majority of people response was NO i.e.78.81% and some of their relatives were exposed to and affected by corona i.e.21.19%. In this data, in Rural population 82.22% were not affected and 17.78% respondents relatives were affected, in Town 78.79% respondents relatives were affected and 21.21% were not affected. City population relatives not affected was 72.34% and affected was 27.66% which is due to dense population in urban which favors spread of Corona.

Table 5: Table on people awareness about wearing mask for prevention of corona.

Should you wear mask for protection?				
	Don't know	No	Yes	Grand Total
		10.64	87.23	
City	2.13%	%	%	100.00%
			87.64	
Rural	8.99%	3.37%	%	100.00%
			87.80	
Town	2.44%	9.76%	%	100.00%
			87.67	
Grand Total	4.33%	8.00%	%	100.00%

As shown in Fig:5, Table5, Respondents when asked about whether they are aware they should wear mask to prevent transmission of corona. 4.33% responded they did not know about it while 7.72% told no they should not wear the mask and 87.67% of people were aware that they should wear the mask. With equal distribution of people being aware of it in all localities and more number of educated people who are living in Cities contradicting the statement with number being 10.64% telling that they wont wear mask, highest among the group.

Table 6: Table on awareness about spread of virus through droplets

Does corona spreads by droplets				
	Don't know	No	Yes	Grand Total
			91.49	
City	0.00%	8.51%	%	100.00%
			77.78	
Rural	15.56%	6.67%	%	100.00%
		15.76	75.15	
Town	9.09%	%	%	100.00%
		11.92	78.48	
Grand Total	9.6%	%	%	100.00%

As shown in Fig:6, Table 6, On asking the respondents whether corona spreads by Droplets 78.48% told YES and 11.92% told No while 9.6% don't know about the mode of spread of the virus.

Table 7: Table on awareness about spread of virus by touching objects infected with virus

Can you get corona by touching objects?				
	Don't know	No	Yes	Grand Total
		25.53	70.21	
City	4.26%	%	%	100.00%
		12.22	65.56	
Rural	22.22%	%	%	100.00%
		10.91	75.76	
Town	13.33%	%	%	100.00%
		13.58	71.85	
Grand Total	14.57%	%	%	100.00%

As shown in Fig:7, Table 7 On asking the respondents whether corona spreads on touching the objects 71.85% told YES and 13.58% told No while 14.57% don't know about the mode of spread of the virus with rural and town people 22.22% and 13.33% of the sample population

These above Data and Graphs shows that Nearly (15-20%) of rural population were not aware about the spread and protection mechanism for the disease

Table 8: Table on awareness about availability of Medicine

Is there medicine available to cure corona virus infection?				
	Don't know	No	Yes	Grand Total
		63.83	10.64	100.00
City	25.53%	%	%	%
		30.00	14.44	100.00
Rural	55.56%	%	%	%
		66.06	11.52	100.00
Town	22.42%	%	%	%
		54.97	12.25	100.00
Grand Total	32.78%	%	%	%

As shown in Fig:8, Table 7 Participants when asked if there is medicine available to cure corona virus infection 54.97% were aware that there is no medicine for corona at the time of research and 32.78% don't know about the status of medicine for corona while 12.25% were believing that there is medicine for corona.

Table 9: Table on awareness about availability of vaccine

Is there any vaccine available for to prevent corona? Row Labels	Column Labels			Grand Total
	Don't know	No	Yes	
City	25.53%	55.32%	19.15%	100.00%
Rural	60.00%	31.11%	8.89%	100.00%
Town	22.42%	63.64%	13.94%	100.00%
Grand Total	34.11%	52.65%	13.25%	100.00%

As shown in fig:9, Table 9 Respondents when asked is there vaccine available to prevent corona virus infection 52.65% were aware that there is no vaccine for corona at the time of research and 34.11% don't know about the status of vaccines for corona while 13.25% were believing that there is a vaccine for corona.

Table 10: Table on awareness about hand hygiene

Have you even watched a video on hand hygiene for corona virus ? Row Labels	Column Labels		Grand Total
	No	Yes	
City	10.64%	89.36%	100.00%
Rural	44.44%	55.56%	100.00%
Town	19.02%	80.98%	100.00%
Grand Total	25.33%	74.67%	100.00%

As shown in fig:10, Table 10, Respondents when asked whether they have watched a video on hand hygiene. 74.67% people have watched and are practicing it, while 25.33% of people were not aware of hand washing techniques.

Table 11: Table on percentage of people died due to COVID

Has any for your family members died due to corona virus?	Column Labels		Grand Total
	No	Yes	
City	82.98%	17.02%	100.00%
Rural	84.44%	15.56%	100.00%
Town	83.64%	16.36%	100.00%
Grand Total	83.77%	16.23%	100.00%

As shown in fig:11, Table 11, of the total sample size of 300 nearly 16.23% of people have lost their family member to corona.

Discussion:

Every virus and every pandemic behaves differently and, unfortunately, so do the leaders tasked to respond. Today, instead of following a traditional playbook designed to limit exposure, quarantine those infected and take prudent safety precautions, we have an erratic national response resulting in an ever-expanding crisis. The pandemic of 1918, otherwise known as the Spanish Flu, was the deadliest recent outbreak in modern history. In just about a year it was estimated to have killed some 50 million people worldwide, including 675,000 in the United States. Worldwide, the US Center for Disease Control and Prevention (CDC) estimates that 151,700 to 575,400 people died from the Swine Flu in its first year of circulation. Unlike the corona virus, most people affected by the swine flu, though not all, were 65 and younger. Over the past ten months, COVID-19 has emerged as a public health threat around the world. It adds to the list of previous epidemic infectious disease outbreaks, including Bovine Spongiform Encephalitis in 1986, the Avian flu in 1997, the SARS in 2002, the Swine Flu in 2009, and the Ebola in 2014. All these outbreaks remind us that we live in a habitat where it is necessary to respect the relationship between animal, social life and the environment to survive and thrive[5,6]. Rapid urbanization and our incursion into forest lands, has created a new interface between humans and wildlife; and exposed humans to unfamiliar organisms often involving the consumption of exotic wildlife[7]. With COVID-19, nature is sending us a message that we need to recognize the interrelationship between animals, including pets, livestock and wildlife[7]. The transdisciplinary One-Health approach involving professionals from many disciplines such as medicine, veterinary, environmental health and social sciences has been advocated to limit new infectious outbreaks. The global experience is teaching that containment measures and aggressive contact tracing are mandatory to keep the infection under control until an approved treatment or vaccine is available to the global community. They should also minimize the economic burden of disease and improve understanding of disease mechanisms, health problems, disease emergence and reemergence to respond in a proportionate and timely manner. This will help

in detecting, preventing, and combating future pandemics based on our experience from COVID-19 outbreaks[7]. The implementation and development of the One-Health collaborations on a global scale are critical in reducing the threat of emerging viruses

The Government of India is taking all necessary steps to ensure that we are prepared well to face the challenge and threat posed by the growing pandemic of COVID-19. With active support from the people of India, we have been able to contain the spread of the virus in our country. The most important factor in preventing the spread of the virus locally is to empower the citizens with the right information and taking precautions as per the advisories being issued by Ministry of Health & Family Welfare[8]. On the question of trusted sources of information for coronavirus, the study shows that majority of the respondent's 357 (68.3%), trusted on Television (357), 323 (62%) showed their trust on official government Websites and 258 (49%) said Newspaper. People trusted the above sources as most authentic sources of news dissemination [4].

During the peak of COVID pandemic Govt of India implemented JANATA CURFEW which was done in 3 phases all these helped to contain spread of corona virus during this period. AAROGYA SETU[8,9]. The stated purpose of this app is to spread awareness of COVID-19 and to connect essential COVID19 - related health services to the people of India (Banerjea, A 2020)[7]. ZONES The zonal classification of hotspot, non-hotspot and green zones helped in transmission of Corona cases from highly infected areas to lowly infected areas [8,9].

Promoting COVID appropriate behavior:

Simple public health measures are to be promoted to reduce the risk of spread of COVID-19 infection. These measures are to be observed by all (staff and visitors) in these places at all times.

These include:

- i. Physical distancing of at least 6 feet to be followed as far as feasible.
- ii. Use of face covers/masks to be made mandatory.
- iii. Practice frequent hand washing with soap (for at least 40-60 seconds) even when hands are not visibly dirty. Use of alcohol-based hand sanitizers (for at least 20 seconds) can be made wherever feasible[13].
- iv. Respiratory etiquettes to be strictly followed. This involves strict practice of covering one's mouth and nose while coughing/sneezing with a tissue/handkerchief/flexed elbow and disposing off used tissues properly.
- v. Self-monitoring of health by all and reporting any illness at the earliest to State or District helpline.
- vi. Spitting shall be strictly prohibited.
- vii. Installation & use of Aarogya-Setu App shall be advised to all.[9]

Every country around the world is being encouraged to draft a preparedness plan as per the WHO's global guidelines: "The 'COVID-19' Strategic Preparedness and Response Plan"

(SPRP). The SPRP outlines the public health measures that are needed to be taken to support countries to prepare for and respond to COVID-19 [10,11].

Abu_zaid et al have said that even though all the groups showed almost identical knowledge about the primary information of the disease, in some areas, such as disease complications, high-risk populations, personal protection measures, and treatment availability, a clear distinction exists[11]. For example, only 68.78% of the less educated showed awareness of the high risk of contracting the infection of older people[10]. When compared with this study showed high educated people were not willing to take all precautionary measures

To control the spread of virus and prevention from affecting other non affected population government along with scientists at National Institute of Virology (NIV), Pune have isolated around 11 different strains of the COVID-19, so they currently need at least 18 months to 2 years to prepare the vaccine. The Indian council of medical research (ICMR), the apex head body of research India, has stated that isolation of the virus is the first step towards expediting the development of drugs, vaccines and rapid diagnostic kits in the country.[12]

Conclusion:

- We found that awareness about COVID-19 existed in nearly **98.01%** of population.
- It was also found that knowledge and preventive measures among different demographics of people was among **79.33%** of people
- **52.7%** people were also aware there is no Particular method of treatment to cure Corona at the time of study
- Of Total sample size of 300 nearly **21.19%** of peoples friends and relatives were affected and **16.23%** of people have lost their family member to corona.

This study Highlights the efficiency of government propaganda vehicles in reaching even in rural population .

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Annexure 1

Age of respondent	
Gender	Male/Female
Locality of respondent	Rural/Town/City
Have u heard about corona virus?	Yes/No
Do you know anyone in your family/friends affected by corona?	Yes/No
Does corona spreads by droplets?	Yes/No/ Don't know
Should u wear mask for protection?	Yes/No/ Don't know
Can u get corona by touching objects?	Yes/No/ Don't know
Does social distancing reduce risk of transmission?	Yes/No/ Don't know
Is there medicine available to cure corona virus infection?	Yes/No/ Don't know
Is there any vaccine available for to prevent corona?	Yes/No/ Don't know
Have you even watched a video on hand hygiene for corona virus?	Yes/No
Has any for your family members died due to corona virus?	Yes/NO

Figure 3: Graph on awareness about corona.

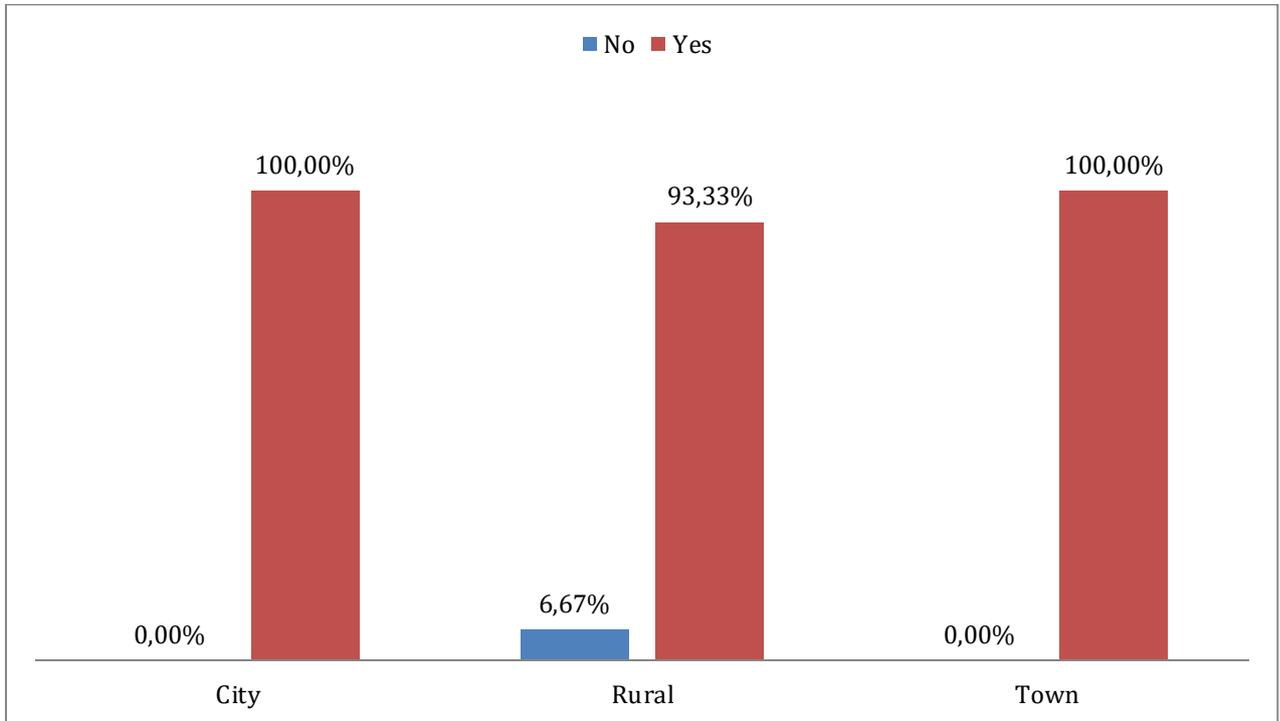


Figure 4: Graph on patient's relatives getting affected by corona.

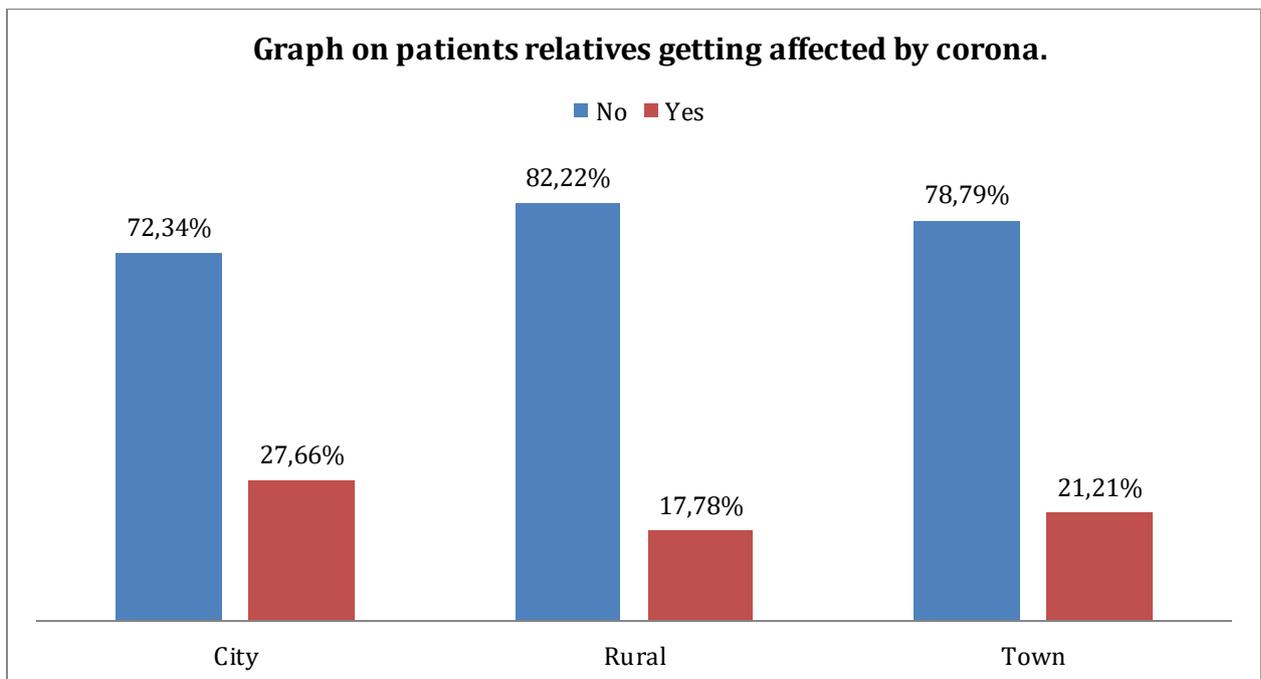


Figure 5: Graph on people awareness about wearing mask for prevention of corona.

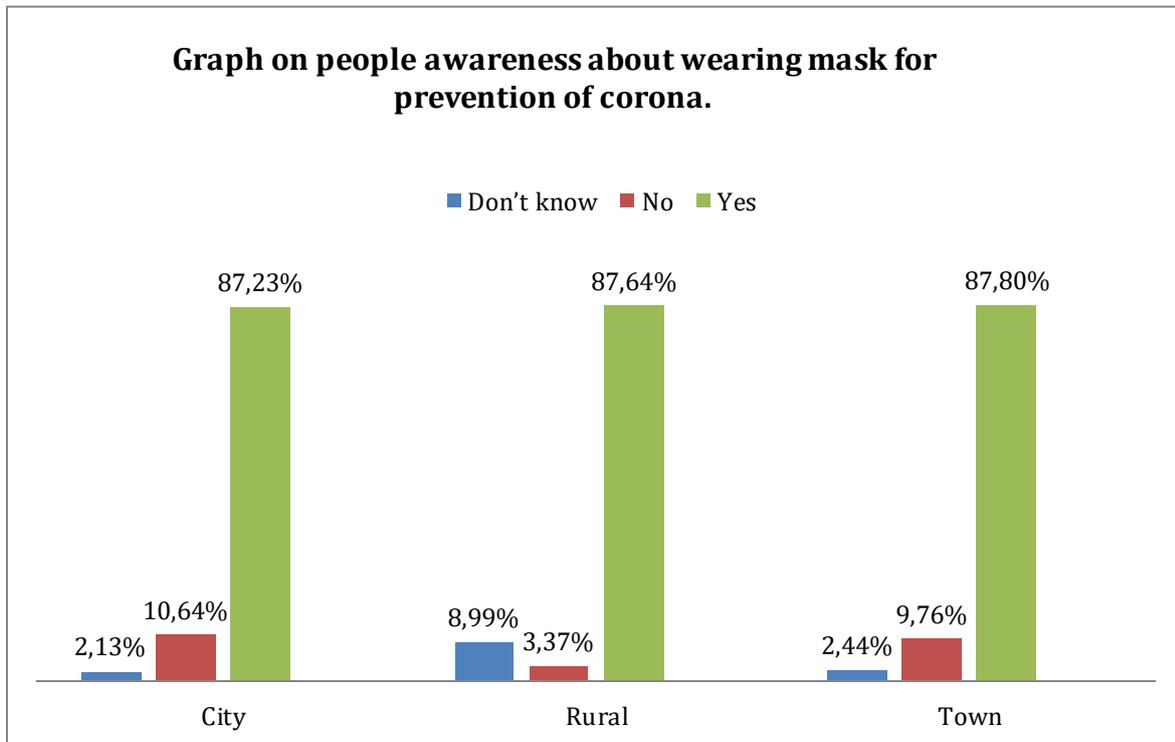


Figure 6: Graph on awareness about spread of virus through droplets

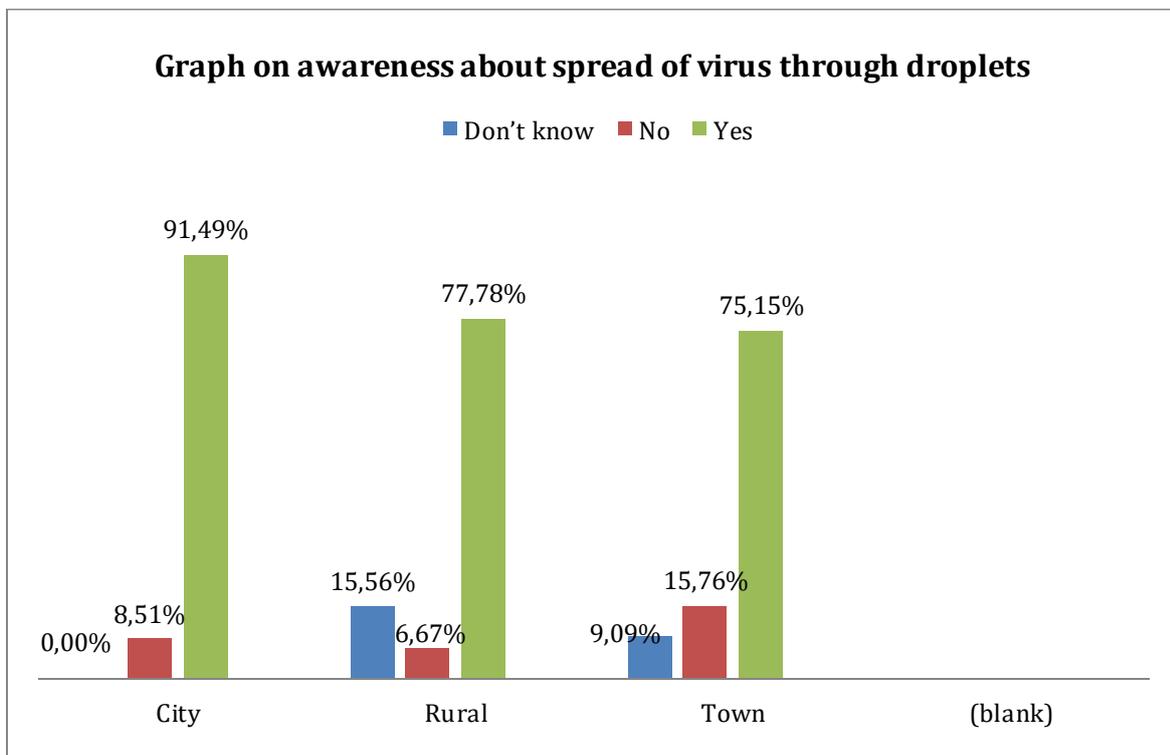


Figure 7: Graph on awareness about spread of virus by touching objects infected with virus

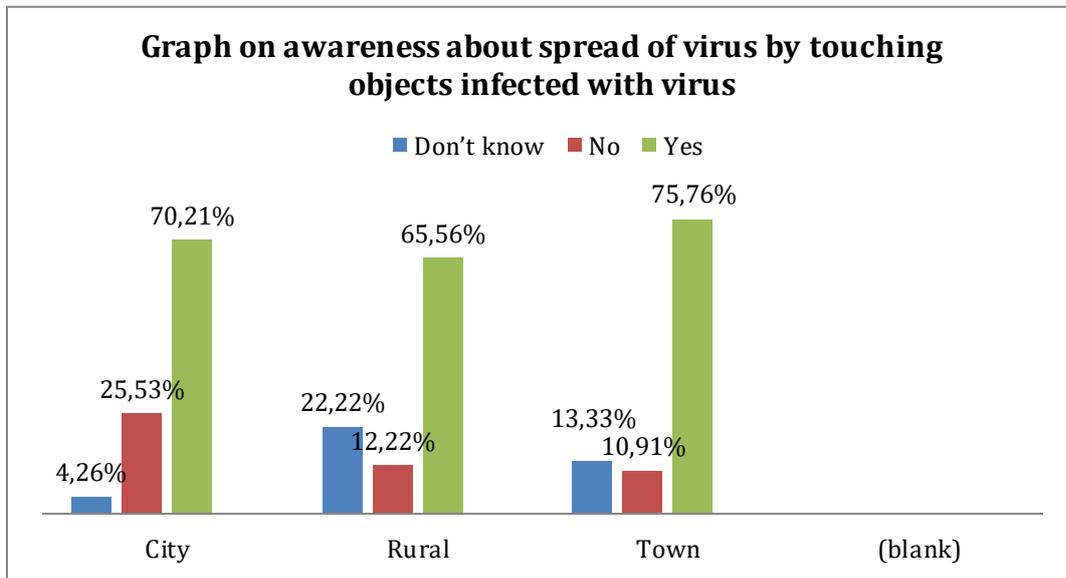


Figure 8: Graph on awareness about availability of Medicine

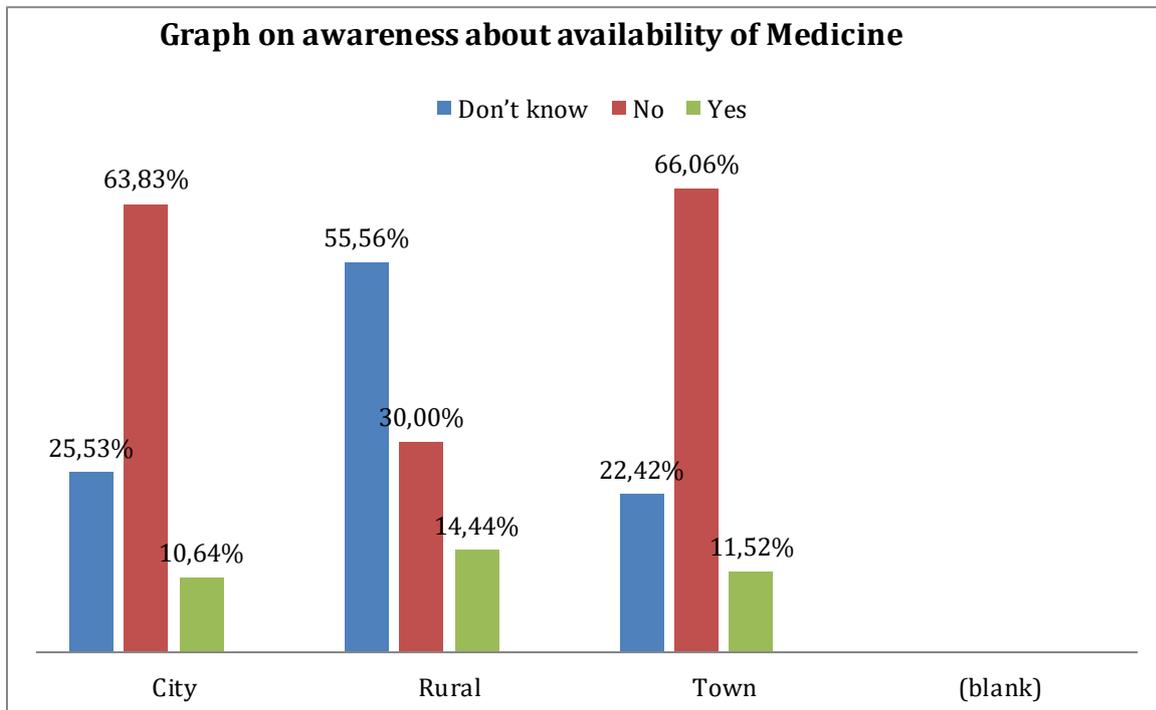


Figure 9: Graph on awareness about availability of vaccine

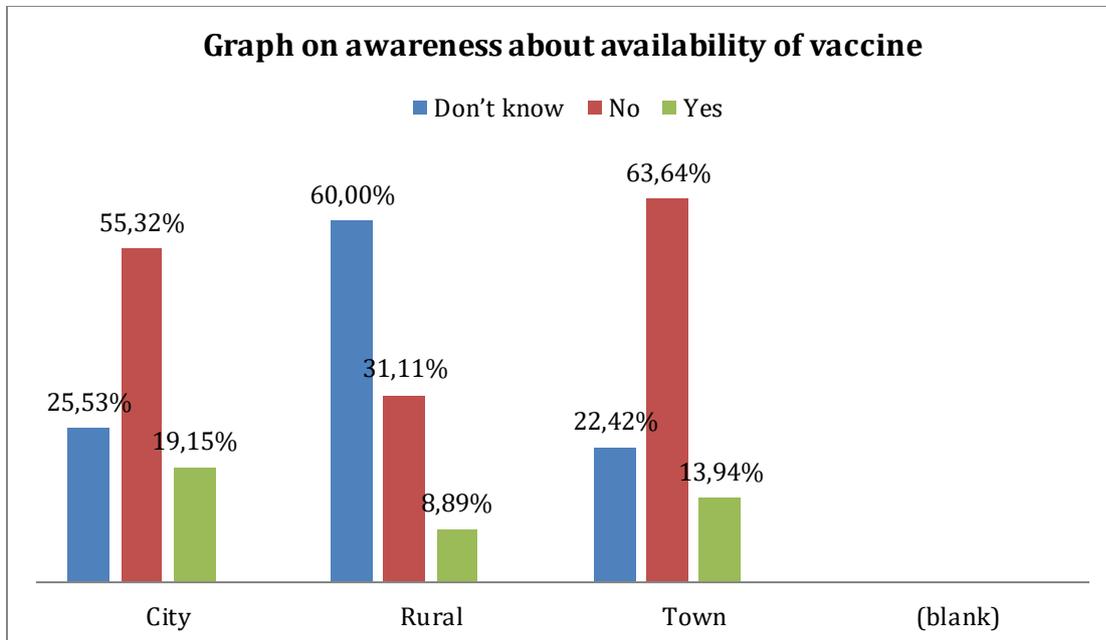


Figure 10: Graph on awareness about hand hygiene

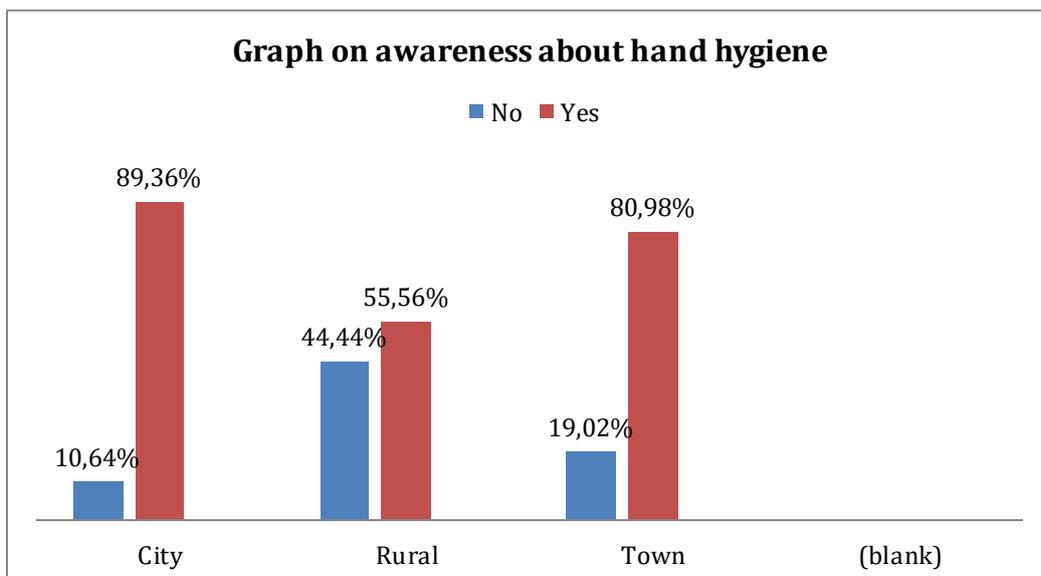


Figure 11: Graph on percentage of people died due to COVID

