



## Socio-Demographic Profile of Covid-19 Cases and Deaths reported at SMS Hospital, Jaipur, Rajasthan: A Descriptive Observational Study

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### Abstract

**Introduction:** Covid-19 is a novel pandemic, nothing was known about its pattern of spread, infectivity, socio-demographic factors, clinical presentation, mortality rate and other associated factors. Whole world was just hoping to get more and more information and data regarding this new pandemic.

#### Objectives:

- 1) to describe the socio-demographic profile of covid-19 case and death reported in SMS hospital, Jaipur from 29/02/2020 to ...11.06.2020.....
- 2) To find out the factors associated with COVID-19 mortality reported at SMS Hospital during 29/02/2020 to 11.06.2020.....

**Methodology:** This hospital based observational, descriptive study was conducted at the largest tertiary care teaching hospital in Rajasthan during 20th May to 20th June 2020. Total 1201 cases of Covid -19 admitted and 138 covid-19 deaths were analyzed.

## INTRODUCTION

The world was shaken to face a sudden blow in the form of a pandemic i.e. Covid-19 in the beginning of year 2020. COVID-19 is caused by Severe Acute Respiratory Syndrome Corona virus 2 (SARS-CoV-2)<sup>5</sup>. The first case of covid-19 was reported by Wuhan prominence of china on...31 dec 2019<sup>6</sup>. It entered India on 30th January 2020 when a medical student studying in Wuhan returned to hometown in Kerala. Thereafter cases started increasing slowly but steadily and by 30th March 2020, there were 979 confirmed cases with 25 deaths<sup>7</sup>. At the same time, European countries like Italy, France, Spain faced this new challenge terrifically with mortality as high as 11%. Looking into its rapid spread, novelty of virus, unimmunized population and total unawareness about virus's behavior, WHO had to declare COVID-19 a Pandemic on 11th March 2020<sup>5</sup>. As it was a novel virus, nothing was known about its pattern of spread, infectivity, socio-demographic factors, clinical presentation, mortality rate and other associated factors. Whole world was just hoping to get more and more information and data regarding this new pandemic. Considering above facts, this study was conducted with the following objectives:

#### Objectives:

- 1) To describe the socio-demographic profile of covid-19 case and death reported in SMS hospital, Jaipur from 29/02/2020 to 11.06.20.20.
- 2) To find out the factors associated with COVID-19 mortality reported at SMS Hospital during 29/02/2020 to 11.06.20.20.

#### Methodology

This hospital based observational, descriptive study was conducted at SMS Hospital, Jaipur, Rajasthan during 20th May to 11th June 2020. It is the largest tertiary care government hospital associated with SMS Medical College Jaipur. It caters majority of Covid-19 cases in whole Rajasthan.

Sample size: All 1201 cases of Covid -19 admitted and.....Covid-19 deaths reported at SMS hospital from 30th January 2020 to ...June 2020 were included in the study.

Secondary data were collected from case records and Primary data were collected by telephonic communication with either case or their relative. All .....death cases and equal number of survivors with moderate to severe symptoms who required ICU services were randomly selected for analysis of factors associated with mortality.

Statistical analysis: continuous data were summarized in form of mean & standard deviation. Difference in means of two groups was analyzed using student's t test. Line diagram was prepared to show the time trends. Count data were expressed in form of proportions. Differences in proportions were analyzed using Chi-square test. Pie chart was prepared to show the distribution of proportions. The level of confidence was kept 95% for all statistical analysis.

## RESULTS

**Graph 1:** Time trends of Covid -19 Cases admitted in SMS Hospital, Jaipur (29/02/20 to 11/06/20)

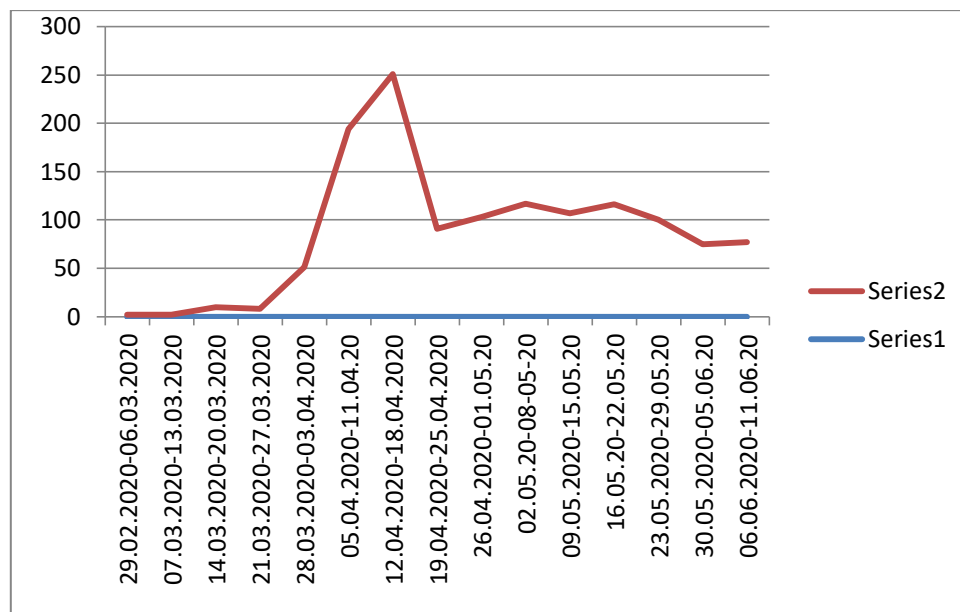
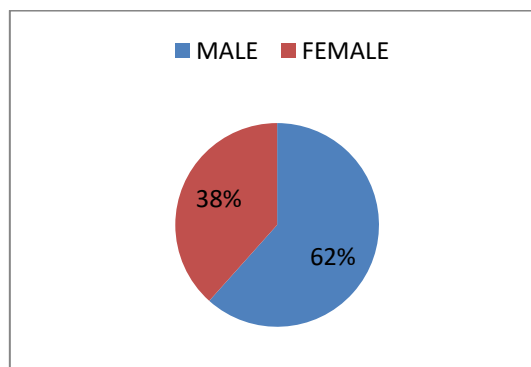


Figure 1 depicts the time trends of Covid-19 cases. There was a peak in second week of April. After that it fell in the third week.

Majority of the patients were male (62%)(Fig.2) followed by females(38%).

Majority(57%) were muslims .52% patients were resident of urban area followed by 38% patients in urban congested area and 9.3% in rural area (Table 2).

**Graph 2:** Sex wise distribution of covid-19 cases



**Table-1:** Age and sex distribution of Covid -19 cases (29.02.20 TO 11.06.20)

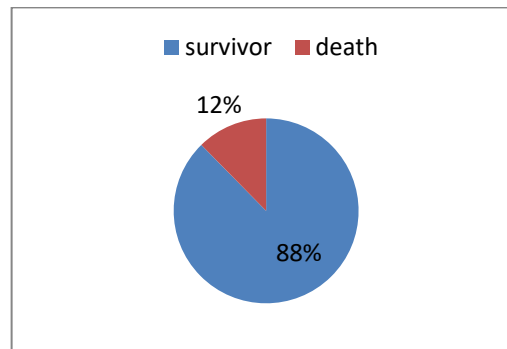
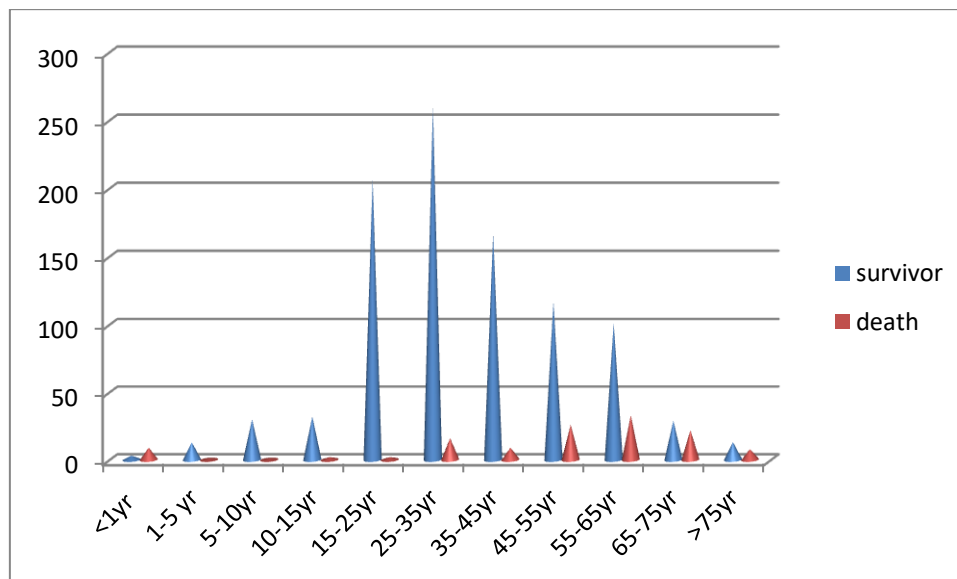
Age (years)	Sex	
	M	F
<1	7	7
1 to <5	6	7
5 to <10	18	15
10to <15	26	9
15 to <25	130	109
25 to <35	168	132
35 to <45	129	60
45 to <55	104	48
55 to <65	98	50
65 to 75	39	18
>75	15	6
<b>Total</b>	<b>740</b>	<b>461</b>

**Table-2:** Socio-economic status profile of covid-19 cases

Socio-demographic profile	No. of cases (n= <b>1201</b> )	%
<u>Sex</u>		
Male	740	68
Female	461	32
<u>Religion</u>		
Hindu	517	43
Muslim	684	57
<u>Residence area</u>		
Rural	112	9.3
Urban	625	52
Urban congested area	464	38

**Table-3:** Behavioral Profile & Practices of Covid-19 Cases

Behavioral Profile	No. of Covid-19 Cases (n= <b>1201</b> )	
	Yes (%)	No (%)
Tobacco consumption	72	72
Alcohol consumption	57	87
Frequent consumption of sips of warm water /tea during illness	15	61
Steams inhalation	13	76
Consumption of Tulsi /ginger/black pepper tea during illness	55	80
Multivitamins tablets intake	18	125
Use of Others Indigenous /ayurvedic medicine	19	106
Yoga/ Pranayama regularly	28	115
Frequent Hand washing	96	29
Presence of Co-morbidities (DM/HT/CAD/Lung ds)	23	124
<b>Total</b>	<b>396</b>	<b>875</b>

**Graph-3:** Distribution of Covid-19 cases and Deaths reported at SMS Hospital**Graph-4:** Age and sex wise distribution of covid-19 Survivor and Death cases**Table-4:** Age and Sex wise Distribution of Covid-19 survivors & Deaths

Age (Years)	No. of Covid-19 Cases reported at SMS Hospital	
	Survivor (88.50%)	Death (11.49%)
<1	10	3
1-5	13	1
5-10	31	2
10-15	34	1
15-25	222	17
25-35	284	16
35-45	180	9
45-55	126	26
55-65	115	33
65-75	35	22
>75	13	8
<b>Total</b>	<b>1063</b>	<b>138</b>

## DISCUSSION

The COVID-19 outbreak has been listed by the World Health Organization as a major public health emergency of international concern that seriously endangers public health and safety. No effective antiviral therapy has been identified for COVID-19 yet. Symptomatic supportive therapy and comprehensive intervention are the main treatment methods for COVID-19. During the pandemic, frontline medical staffs are required to constantly improve the treatment methods;

therefore, many clinical trials are necessary. Clinical trial registration is the primary link ensuring clinical trial transparency, crucial content for medical research ethics, and researchers' responsibility and obligations. As the research on prevention and control of COVID-19 progresses, the number of registered clinical trials has continued to grow. As of March 10, 2020, 429 clinical trials for COVID-19 have been conducted in China. At this time, it is necessary for the national and local administrative departments to strengthen the management<sup>1</sup>. COVID-19 has also put a spotlight on the broken healthcare systems that leave healthcare workers with ethical obligations to treat all patients, inadequately protected for this battlefield, with insufficient personal protective equipment and inadequate governmental policies to prevent the spread of illness.<sup>2</sup>

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