

# “Corona Test, one of the pre-cautionary steps for taking preventive measures from spreading infectious position of a country. A case study on the comparative analysis of Covid-19 between Bangladesh and 10(ten) top most infected countries of the world”

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## Abstract

Alhamdulillah, from the key analysis of the critical points of Coronavirus test of the whole study, we have found that for controlling the spreading of infectious position of a country there is no alternative ways of corona test. As we know that for preventing or curing a patient from acute disease the diagnoses of the disease is essential first. Otherwise, if the disease is not properly traced out, the proper treatment will never or ever be possible. Like that, from the analysis we have found that in our country the rate of corona test is very insignificant (0.36%) comparing to the top-most 10 infected countries of the world i.e. in United States it is 8.26%, in Brazil it is 1.10%, in Russia it is 11.18%, in India it is 0.47%, in United Kingdom it is 10.95%, in Spain it is 10.32%, in Peru it is 4.43%, in Italy it is 8.09%, in Chile it is 4.83%, in Iran it is 1.63%. But the infectious position of the people in Bangladesh is 18.02% which is the 3rd position of the world among the reported countries (as on 19/06/2020). It implies that as much corona test as possible the infected people will be found more. The Government and the individual will be able to take the precautionary steps for the infected people of the country immediately so that the other people will be aware and try to keep them safe. So due to lack of corona test of the people of the country who is infected is lying in dark. From the beckoning report of the daily newspapers, the people of the country (Bangladesh) is gradually infected bulky of corona virus. So the life and family risk of the people of the infectious country is increasing day by day due to lacking of corona test. Immediately the government should come forward to take necessary steps to commit more corona test of more people at a less cost and at the convenient place as the pregnancy test is done and result to be delivered at the soonest time.

**Key words: Corona-Test, Pre-cautionary Step, Preventive measures, Infectious Position, Comparative Analysis**

## 1.1 Introduction

The coronavirus pandemic is known as the **Covid-19** pandemic and it is an ongoing pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The outbreak was first traced out in China, Wuhan in December 2019. The World Health Organization declared the outbreak a Public Health Emergency of International Concern on 30 January, and a pandemic on 11 March<sup>[1]</sup>. As of 19 June 2020<sup>[2]</sup>, more than 8.74 million cases of Covid-19 have been reported in more than 215 countries and territories, resulting in more than 0.50 million deaths.

It is grappled to come to terms with the coronavirus pandemic, there has been much on social media about the “century killers” of previous 3 pandemic: Like that (i) 1720 Plague, killed a total of 1,00,000 people, (ii) 1820 Cholera Outbreak, took life of 100,000 officially recorded, (iii) 1920 Spanish Flu took death about from 17 million to 50 million people of the world. In the year 2020 Covid-19 the death is still above 0.50 million and the infectious position is ongoing and death is also waiting for count. The researchers said that these pandemics as mentioned above have exactly the same pattern as the coronavirus outbreak in China, Wuhan. However, the precision with which these pandemics occur at exactly 100 years of age makes the researchers to think the fact of the world people in time.

## 1.2 Objectives of the Study

The objectives of this research study are

1. To find out the reasons of bulk death and affected rate of the countries and
2. To find out the ways of remedial measures of the countries to minimize the death and affected rate by Covid-19.

## 1.3 Research Methods

In every research, researchers should use a method or a set of methods which enables them to reach the answer to their question or a new hypothesis. This set of methods is the methodology. This study employed quantitative as a single mood research approach. Data and information were collected from secondary sources in two phases. The study has analyzed available literature and documents to understand the theory and framework and study instruments regarding

test of Covid-19 of the top most ranked 10 countries with Bangladesh to find out the infectious position so that the precautionary steps may be taken to control the rate of death of the population.

#### 1.4. Data collection procedure

Data sources: Website, Newspapers, Books and Journals etc.

Data Collection: The secondary data have been collected from web site of worldometer, The Daily Prothom Alo and different Books and Journals.

#### 1.5. Data Processing and Analysis

In qualitative study the researcher has the freedom to marshal gathered data to meet the desired objectives of the study. The rest of the data were explained carefully to meet the aim of the study and research question and also attempted to establish relation among the variables. Some important and strong statements were referred in the analysis part to add value to the findings. Computer Program, Microsoft Excel was used to understand the theory and framework and study instruments regarding test of Covid-19 of the top most ranked 10 countries with Bangladesh to find out the infectious position so that the precautionary steps may be taken to control the rate of death of the population. Hence data were analyzed according to the objectives of the study. Mentionable that in some cases data based on the delivered data of worldometer to be considered as on 19 June 2020 and other cases the data have been estimated by me. Accordingly tables, graphs and statistical analysis were done.

## 2. Literature Review

For time being for the period from 541 to 1920 there had been committed a lot of epidemic in the world and caught life sometime approximately of 40% of the population in Europe, Egypt and West Asia which is known as the Plague of Justinian killed 25-50 million people affected the Byzantine Empire. For the period 1347 to 1353, the Black Death, also known as The Great Bubonic plague, took a massive toll on the populations of Europe, Asia and North Africa, with an estimated fatality up to 200 million which was 60% of the European population. Massively then the Great Plague of Marseille (1720-1723), cholera pandemic (1817-1824), Spanish Flu (1918-1920) and now Covid-19 (2019-2020) is ongoing and already killed approximately 0.5 million life. Now we will review the history below in a brief.

NEW DELHI: It is a known fact that plagues and pandemics change the course of humanity forever. While thousands of people die, civilizations end, economy collapses, such diseases often become difficult to contain, posing a major challenge to the ruling governments across the world.

The Great Plague of Marseille (1720-1723): The disease started spreading in Marseille, France in 1720, killing a total of 1,00,000 people. As per estimates, up to 30 per cent of the population of Marseille is expected to have perished due to the plague.

The first cholera pandemic (1817-1824): It is also known as first Asiatic cholera pandemic or Asiatic cholera. It is known to have began in the city of Calcutta and spread throughout Southeast Asia to the Middle East, Eastern Africa and the Mediterranean coast over the time. Hundreds of people died during this pandemic. This pandemic affected almost every country in Asia.

Spanish Flu (1918-1920): It is one of the deadliest influenza pandemic humanity has ever witnessed. While 500 million people fell victim to Spanish flu, many indigenous communities were pushed to the brink of extinction. As per estimates, the death toll is put anywhere from 17 million to 50 million.

Coronavirus Pandemic (2019-20): Covid-19 is an ongoing infectious global pandemic caused by the most recently discovered coronavirus. The virus was unknown until the outbreak began in Wuhan, China in December 2019. The virus can spread from person to person through small droplets from the nose or mouth, as the droplets land on objects and surfaces around the person. When healthy people touch the objects or surfaces and then touch their eyes, nose or mouth they can catch the virus<sup>[3]</sup>.

**ISLAMABAD:** In 1720 Plague, 1820 Cholera, 1920 Spanish Flu, 2020 Chinese coronavirus. It seems that once in 100 years the world is devastated by a pandemic. The last recent pandemics we can mention are the following: In the year 1720 plague, in the year 1820 cholera outbreak and the most recent pandemic was the Spanish flu of 1920. The researchers said that all of these pandemics we mentioned above have exactly the same pattern as the coronavirus outbreak in China. In 1720 there was a deadly pandemic of bubonic plague. It started in Marseille and was later called "The Great Plague of Marseille." The researchers estimated the number of deaths as 100,000. In 1820 the first cholera pandemic occurred, somewhere in Asia. Among the affected countries, we can list Indonesia, Thailand and the Philippines and officially 100,000 people died. The main reason for the infection is the consumption of water from lakes infested with this killer bacterium. In 1920 one of the most unrelenting pandemics occurred. This is the Spanish flu that has infected about half a billion people and killed 100 million. The Spanish flu holds the official record for the deadliest pandemic officially recorded in history. It is now 2020. At the 100<sup>th</sup> anniversary of the Spanish Influenza, humanity is

facing a new potential pandemic called coronavirus. Although the Chinese authorities were reluctant to make official statements and appealed for calm, the situation deteriorated rapidly<sup>[4]</sup>.

Mentionable that Despite the name Spanish Flu, the disease likely did not start in Spain. Spain was a neutral nation during the war and did not enforce strict censorship of its press, which could therefore freely publish early accounts of the illness. As a result, people falsely believed the illness was specific to Spain, and the name Spanish Flu stuck<sup>[5]</sup>.

### 3. Country-wise data analysis of corona-virus position

Insha Allah, we will discuss below in table-1 & 2 briefly the comparative position of corona-virus of the ten top-most affected countries with the position of Bangladesh as the test of corona-virus in Bangladesh in not seriously taking the matter in book of importance of the country.

**Table-1: Country-wise comparative statistics of corona-virus of the 10(Ten) top most affected countries of the world<sup>[6]</sup>**

Reported on 20/06/2020 (Reporting figure as of 19/06/2020)

Sl	Name of the Country	Population-2020	World ranking in pop.	Total Tested People	Infected People	Death	Density (P/Km <sup>2</sup> )	Land Area (Km <sup>2</sup> )	Urban Pop %	1 <sup>st</sup> traced date	Days elapsed as on 19/06/20
1	<b>United States</b>	330,944,050	3 <sup>rd</sup>	<b>27,337,385</b>	<b>2,297,190</b>	<b>121,407</b>	36	9,147,420	83%	13/01/20	158 days
2	<b>Brazil</b>	212,512,836	6 <sup>th</sup>	<b>2,344,437</b>	<b>1,038,568</b>	<b>49,090</b>	25	8,358,140	88%	26/02/20	114 days
3	<b>Russia</b>	145,932,745	9 <sup>th</sup>	<b>16,321,964</b>	<b>569,063</b>	<b>7,841</b>	9	16376870	74%	31/01/20	140 days
4	<b>India</b>	1,379,567,062	2 <sup>nd</sup>	<b>6,426,627</b>	<b>395,812</b>	<b>12,970</b>	464	2,973,190	35%	30/01/20	days 141
5	<b>United Kingdom</b>	67,875,356	21 <sup>st</sup>	<b>7,433,114</b>	<b>301,815</b>	<b>42,461</b>	281	241,930	83%	31/01/20	140 days
6	<b>Spain</b>	46,754,281	30 <sup>th</sup>	<b>4,826,516</b>	<b>292,655</b>	<b>28,315</b>	94	498,800	80%	31/01/20	140 days
7	<b>Peru</b>	32,956,067	43 <sup>rd</sup>	<b>1,461,266</b>	<b>247,925</b>	<b>7,660</b>	26	1,280,000	79%	06/03/20	105 days
8	<b>Italy</b>	60,464,181	23 <sup>rd</sup>	<b>4,889,103</b>	<b>238,011</b>	<b>34,561</b>	206	294,140	69%	31/01/20	140 days
9	<b>Chile</b>	19,111,018	63 <sup>rd</sup>	<b>923,513</b>	<b>231,393</b>	<b>4,093</b>	26	743,532	85%	03/03/20	108 days
10	<b>Iran</b>	83,956,634	18 <sup>th</sup>	<b>1,370,718</b>	<b>200,262</b>	<b>9,392</b>	52	1,628,550	76%	19/02/20	121 days
	<b>Bangladesh</b>	164,636,385	8 <sup>th</sup>	<b>585,548</b>	<b>105,535</b>	<b>1,388</b>	1,265	147,570	39%	08/03/20	103 days

Sources: <https://www.worldometers.info/coronavirus/#countries>

Table-1 shows that the country-wise comparative statistics of corona virus position of the ten most affected countries and Bangladesh where the data have been synchronized for better explanation.

**Table-2: In percentage the Comparative statistics of Covid-19 between Bangladesh and 10(ten) top most affected countries of the world**

Sl	Name of the Country	Population-2020	Infected People	Rate of Infected People as per total population		Rate of Infected People as per total tested people		Death	Rate of Death of affected people		Total Tested People	Total Tests	
				per Mil.	%	per Mil.	%		per Mil.	%		per Mil.	%
1	<b>United States</b>	330,944,050	<b>2,297,190</b>	<b>6,941</b>	<b>0.69</b>	<b>84,031</b>	<b>8.40</b>	<b>121,407</b>	<b>52,900</b>	<b>5.29</b>	<b>27,337,385</b>	<b>82,604</b>	<b>8.26</b>
2	<b>Brazil</b>	212,512,836	<b>1,038,568</b>	<b>4,887</b>	<b>0.49</b>	<b>443000</b>	<b>44.30</b>	<b>49,090</b>	<b>47,300</b>	<b>4.73</b>	<b>2,344,437</b>	<b>11,032</b>	<b>1.10</b>
3	<b>Russia</b>	145,932,745	<b>569,063</b>	<b>3,899</b>	<b>0.39</b>	<b>34865</b>	<b>3.49</b>	<b>7,841</b>	<b>13,800</b>	<b>1.38</b>	<b>16,321,964</b>	<b>111,846</b>	<b>11.18</b>
4	<b>India</b>	1,379,567,062	<b>395,812</b>	<b>287</b>	<b>0.03</b>	<b>61589</b>	<b>6.16</b>	<b>12,970</b>	<b>32,800</b>	<b>3.28</b>	<b>6,426,627</b>	<b>4,658</b>	<b>0.47</b>
5	<b>United Kingdom</b>	67,875,356	<b>301,815</b>	<b>4,447</b>	<b>0.44</b>	<b>40604</b>	<b>4.06</b>	<b>42,461</b>	<b>140,700</b>	<b>14.07</b>	<b>7,433,114</b>	<b>109,511</b>	<b>10.95</b>
6	<b>Spain</b>	46,754,281	<b>292,655</b>	<b>6,259</b>	<b>0.63</b>	<b>60635</b>	<b>6.06</b>	<b>28,315</b>	<b>96,800</b>	<b>9.68</b>	<b>4,826,516</b>	<b>103,232</b>	<b>10.32</b>
7	<b>Peru</b>	32,956,067	<b>247,925</b>	<b>7,523</b>	<b>0.75</b>	<b>169665</b>	<b>16.97</b>	<b>7,660</b>	<b>30,900</b>	<b>3.09</b>	<b>1,461,266</b>	<b>44,340</b>	<b>4.43</b>
8	<b>Italy</b>	60,464,181	<b>238,011</b>	<b>3,936</b>	<b>0.39</b>	<b>48682</b>	<b>4.87</b>	<b>34,561</b>	<b>145,200</b>	<b>14.52</b>	<b>4,889,103</b>	<b>80,859</b>	<b>8.09</b>
9	<b>Chile</b>	19,111,018	<b>231,393</b>	<b>12,108</b>	<b>1.21</b>	<b>250557</b>	<b>25.06</b>	<b>4,093</b>	<b>17,700</b>	<b>1.77</b>	<b>923,513</b>	<b>48,324</b>	<b>4.83</b>
10	<b>Iran</b>	83,956,634	<b>200,262</b>	<b>2,385</b>	<b>0.24</b>	<b>146100</b>	<b>14.61</b>	<b>9,392</b>	<b>46,900</b>	<b>4.69</b>	<b>1,370,718</b>	<b>16,327</b>	<b>1.63</b>
	<b>Bangladesh</b>	164,636,385	<b>105,535</b>	<b>641</b>	<b>0.06</b>	<b>180200</b>	<b>18.02</b>	<b>1,388</b>	<b>13,200</b>	<b>1.32</b>	<b>585,548</b>	<b>3,557</b>	<b>0.36</b>

Source: Worldometer (www.Worldometers.info)

#### 3.1. USA

The ongoing Covid-19 pandemic was confirmed to have reached the United States on 13 January, but the cases surged from the second half of February and further in March as the nation-wide testing was increased significantly.

In context of population the United States of America is ranked at the 3<sup>rd</sup> position in the world. At the end 19 of June 2020, it is found that there are 330,944,050 people in the United States and test processed total 27,337,385 which is 8.26% of the total population and found infected 2,297,190 which 0.69% of total population and 8.40% of the total tested people and death occurred 121,407 which is 5.29% of total infected people. It is observed that the land area is 9,147,420 square kilometer and density is only 36 per square kilometer. But 83% of the total population residing at urban area and thus estimated that 6,941 people has been infected at per million and 367 has been died at per million by 158 days (1<sup>st</sup> traced date 13/01/2020). We know that United States is one of the sophisticated and most advanced in technology & science in the world, till it could innovate any vaccine of covid-19 for better treatment and cure from covid. The experts said this level of testing was still not enough to control the outbreak as the death toll too increased sharply the past of the day. It is noticed that community spread and delayed testing has been a major concern to



Americans as enough test kits are not available across states, while shortage of ventilators continues to result in increased deaths.

### 3.2. Brazil

In context of population **Brazil** is ranked at the 6<sup>th</sup> position in the world. At the end 19 of June 2020, it is found that there are 212,512,836 people in **Brazil** and test processed total 2,344,437 which is 1.10% of the total population and found infected 1,038,568 which 0.49% of total population and 44.30% of the total tested people and death occurred 49,090 which is 4.73% of total infected people. The land area of **Brazil** is 8,358,140 square kilometer and density is only 25 people per square kilometer. It is also found that 88% of the total population are residing at urban area and thus estimated that 4,887 people has been infected at per million and 231 has been died at per million by 114 days (1<sup>st</sup> traced date 26/02/2020). By 19 June 2020, there had been processed tests, and was conducting around 20,565 tests per day, but experts said this level of testing was still not enough to contain the outbreak as the death toll too increased sharply the past of the day. We noticed that the density in Brazil is 25 per square kilometer. The number of infected people is the 2<sup>nd</sup> top most of the world and the number of death people is 49,090 which is also the 2<sup>nd</sup> top most of the world.

### 3.3. Russia

In context of population **Russia** is ranked at the 9<sup>th</sup> position in the world. At the end 19 of June 2020, it is found that there are 145,932,745 people in **Russia** and test processed total 16,321,964 which is 11.18% of the total population and found infected 569,063 which 0.39% of total population and 3.49% of the total tested people and death occurred 7,841 which is 1.38% of total infected people.

The land area of **Russia** is 16,376,870 square kilometer and density is only 9 people per square kilometer. It is found that 74% of the total population residing at urban area and thus estimated that 3,899 people has been infected at per million and 54 has been died at per million by 140 days (1<sup>st</sup> traced date 31/01/2020). By early June (19/06/2020), there had been processed 16,321,964 tests, and was conducting 115,760 tests per day.

### 3.4. India

In context of population **India** is ranked at the 2<sup>nd</sup> position in the world. At the end 19 of June 2020, it is found that there are 1,379,567,062 people in **India** and test processed total 6,426,627 which is 0.47% of the total population and found infected 395,812 which 0.03% of total population and 6.16% of the total tested people and death occurred 12,970 which is 3.28% of total infected people.

The total land area of **India** is 2,973,190 square kilometer and density is only 464 per square kilometer. It is found that 35% of the total population residing at urban area and thus estimated that 287 people has been infected at per million and 9 has been died at per million by 141 days (1<sup>st</sup> traced date 30/01/2020). By early June (19/06/2020), there had been processed around 6,426,627 million tests, and was conducting 45,560 tests per day. And so the number of infected people 395,812 which is the top most of the Asia region and also the number of death people is 12,970 which is also the top most of the Asia region.

### 3.5. United Kingdom (UK)

In context of population **United Kingdom (UK)** is ranked at the 21<sup>st</sup> position in the world. At the end 19 of June 2020, it is found that there are 67,875,356 people in **United Kingdom (UK)** and test processed total 7,433,114 which is 10.95% of the total population and found infected 301,815 which 0.44% of total population and 4.06% of the total tested people and death occurred 42,461 which is 14.07% of total infected people.

The land area of **United Kingdom (UK)** is 241,930 square kilometer and density is only 281 people per square kilometer. It is found that 83% of the total population residing at urban area and thus estimated that 4,447 people has been infected at per million and 626 has been died at per million by 140 days (1<sup>st</sup> traced date 31/01/2020). By early June 19 2020, there had been processed 7,433,114 tests, and was conducting around 53,095 tests per day. And so the number of infected people is 301,815 which is the top most of the world and also the number of death people is 42,461 which is also the fifth top most of the world.

### 3.6. Spain

In context of population **Spain** is ranked at the 30<sup>th</sup> position in the world. At the end 19 of June 2020, it is found that there are 46,754,281 people in **Spain** and test processed total 4,826,516 which is 10.32% of the total population and found infected 292,655 which 0.63% of total population and 6.06% of the total tested people and death occurred 28,315 which is 9.68% of total infected people.

The land area of Spain is 498,800 square kilometer and density is only 94 per square kilometer. It is found that 80% of the total population residing at urban area and thus estimated that 6,259 people has been infected at per million and 606 has been died at per million by 140 days (1<sup>st</sup> traced date 31/01/2020). By early June 19/06/2020, there had been processed 4,826,516 tests, and was conducting around 34,475 tests per day.

### 3.7. Peru

In context of population **Peru** is ranked at the 43<sup>rd</sup> position in the world. At the end 19 of June 2020, it is found that there are 32,956,067 people in **Peru** and test processed total 1,461,266 which is 4.43% of the total population and found infected 247,925 which 0.75% of total population and 16.97% of the total tested people and death occurred 7,660 which is 3.09% of total infected people.

The land area of Peru is 1,280,000 square kilometer and density is only 26 people per square kilometer. It is found that 79% of the total population residing at urban area and thus estimated that 7,523 people has been infected at per million and 232 has been died at per million by 105 days (1<sup>st</sup> traced date 06/03/2020). By early June (19/06/2020), there had been processed around 1,461,266 tests, and was conducting 13917 tests per day.

### 3.8. Italy

Coronavirus continues to be severe in Italy, making it the most-affected in Europe as well as outside Asia. Italy has witnessed the highest number of deaths due to COVID-19 in the world. Travel to Italy and Italians travelling to other countries during the outbreak has been traced to have caused COVID-19 spread.

In context of population **Italy** is ranked at the 23<sup>rd</sup> position in the world. At the end 19 of June 2020, it is found that there are 60,464,181 people in Italy and test processed total 4,889,103 which is 8.09% of the total population and found infected 238,011 which is 0.39% of total population and 4.87% of the total tested people and death occurred 34,561 which is 14.52% of total infected people.

The land area of Italy is 294,140 square kilometer and density is only 206 per square kilometer. It is found that 69% of the total population residing at urban area and thus estimated that 3,936 people has been infected at per million and 572 has been died at per million by 140 days (1<sup>st</sup> traced date 31/01/2020). By early June (19/06/2020), there had been processed 4,889,103 tests, and was conducting around 34,922 tests per day. Deaths for coronavirus in Italy increased by more than nine times in ten days.

### 3.9. Chile

In context of population **Chile** is ranked at the 63<sup>rd</sup> position in the world. At the end 19 of June 2020, it is found that there are 19,111,018 people in Chile and test processed total 923,513 which is 4.83% of the total population and found infected 231,393 which is 1.21% of total population and 25.06% of the total tested people and death occurred 4,093 which is 1.77% of total infected people.

The land area of Chile is 743,532 square kilometer and density is only 26 people per square kilometer. It is found that 85% of the total population residing at urban area and thus estimated that 12,108 people has been infected at per million and 214 has been died at per million by 108 days (1<sup>st</sup> traced date 03/03/2020). By early June 19 2020, there had been processed 923,513 tests, and was conducting around 8,550 tests per day, but experts said this level of testing was still not enough to contain the outbreak as the death toll too increased sharply the past of the day.

### 3.10. Iran

In context of population **Iran** is ranked at the 18<sup>th</sup> position in the world. At the end 19 of June 2020, it is found that there are 83,956,634 people in **Iran** and test processed total 1,370,718 which is 1.63% of the total population and found infected 200,262 which is 0.24% of total population and 14.61% of the total tested people and death occurred 9,392 which is 4.69% of total infected people.

The land area of Iran is 1,628,550 square kilometer and density is only 52 people per square kilometer. It is found that 76% of the total population residing at urban area and thus estimated that 2,385 people has been infected at per million and 112 has been died at per million by 121 days (1<sup>st</sup> traced date 19/02/2020). By early June 11 2020, there had been processed 1,370,718 tests, and was conducting around 11,328 tests per day.

### 3.11 Bangladesh

The **Covid-19**, the virus was confirmed to have spread to Bangladesh in March 2020. The first three known cases were reported on 8 March 2020 by the country's epidemiology institute, IEDCR.<sup>[2]</sup> Infections remained low until the end of March but saw a steep rise in April.<sup>[3]</sup> Mar 18, 2020 - Bangladesh confirms first death from *coronavirus case*. In the week ending on 11 April, new cases in Bangladesh grew by 1,155 percent, the highest in Asia, ahead of Indonesia, with 186 percent.<sup>[4]</sup>

In context of population **Bangladesh** is ranked at the 8<sup>th</sup> position in the world. At the end 19 of June 2020, it is found that there are 164,636,385 people in **Bangladesh** and test processed total 585,548 which is 0.36% of the total population and found infected 105,535 which is 0.06% of total population and 18.02% of the total tested people and death occurred 1,388 which is 1.32% of total infected people.

The land area of Bangladesh is 130,170 square kilometer and density is only 1,265 people per square kilometer. It is found that 39% of the total population residing at urban area and thus estimated that 641 people has been infected at per

million and 8 has been died at per million by 103 days (1<sup>st</sup> traced date 08/03/2020). By early June 19 2020, there had been processed 585,548 tests, and was conducting around 5,685 tests per day, but experts said this level of testing was still not enough to contain the outbreak as the death toll too increased sharply the past of the day.

Experts criticized the insufficient amount of tests performed in the country that has a population of over 160 million. Newspaper reports and social media continued to report about additional deaths of patients with COVID-19 symptoms. Some of the deceased were treated at COVID-19 isolation centres at hospitals in the districts and others were denied treatment, though no tests were conducted to confirm contagion. For a longtime, testing was centralised to only Institute of Epidemiology, Disease Control and Research (IEDCR) in the capital Dhaka, although patients with symptoms were reported all around the country<sup>[7]</sup>.

#### 4. Country-wise comparative analysis of data in respect of tested, infected and death people

Table-3: Tested people

Sl	Name of the Country	Population- 2020	Total Tested people	Rate of Total Tests %
1	United States	330,944,050	27,337,385	8.26
2	Brazil	212,512,836	2,344,437	1.1
3	Russia	145,932,745	16,321,964	11.18
4	India	1,379,567,062	6,426,627	0.47
5	United Kingdom	67,875,356	7,433,114	10.95
6	Spain	46,754,281	4,826,516	10.32
7	Peru	32,956,067	1,461,266	4.43
8	Italy	60,464,181	4,889,103	8.09
9	Chile	19,111,018	923,513	4.83
10	Iran	83,956,634	1,370,718	1.63
	Bangladesh	164,636,385	585,548	0.36

### Tested population

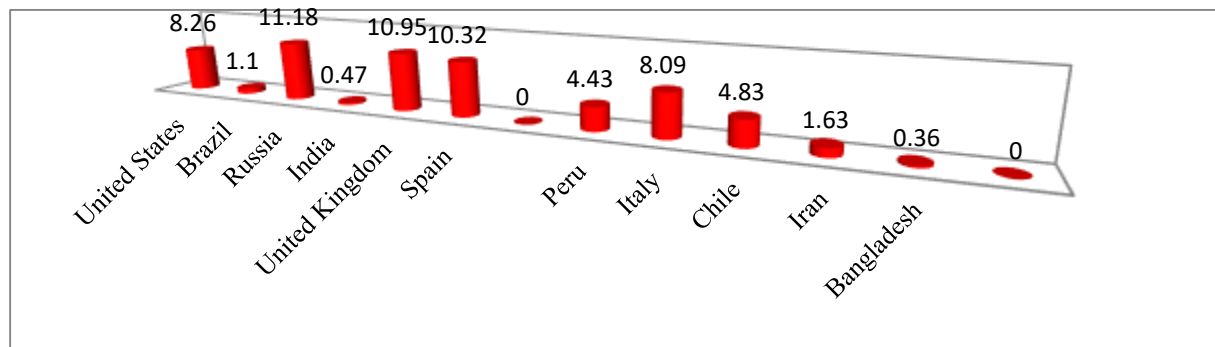


Figure-1: Tested Population

From Table-3, it is depicted that at the end 19 of June 2020, it is found that there are 330,944,050 people in the United States and test has been processed total 27,337,385 which is 8.26% of the total population. In Brazil, there are 212,512,836 people and test processed total 2,344,437 which is 1.10% of the total population. In Russia there are 145,932,745 people and test processed total 16,321,964 which is 11.18% of the total population. In India there are 1,379,567,062 people and test processed total 6,426,627 which is 0.47% of the total population. In **United Kingdom (UK)** there are 67,875,356 people and test processed total 7,433,114 which is 10.95% of the total population. In Spain there are 46,754,281 people and test processed total 4,826,516 which is 10.32% of the total population. In Peru there are 32,956,067 people and test processed total 1,461,266 which is 4.43% of the total population. In **Italy** there are 60,464,181 people and test processed total 4,889,103 which is 8.09% of the total population. In Chile there are 19,111,018 people and test processed total 923,513 which is 4.83% of the total population. In **Iran** there are 83,956,634 people and test processed total 1,370,718 which is 1.63% of the total population. In **Bangladesh** there are 164,636,385 people and test processed total 585,548 which is 0.36% of the total population. At figure-1 the United Kingdom showed 10.95% tested people of total population. In Russia corona-test of 11.18% done out of total population. In Spain it represents 10.32% of total population. Also in United States and Italy it implies 8.26% and 8.09%, in Chile it is 4.83%, in Peru it is 4.43%, in Iran it is 1.63%, in Brazil it is 1.1%, in India it is 0.47% and in Bangladesh it is 0.36% of the population. Having more population in Iran, Brazil, India, and in Bangladesh test procedure is very insignificant. Even

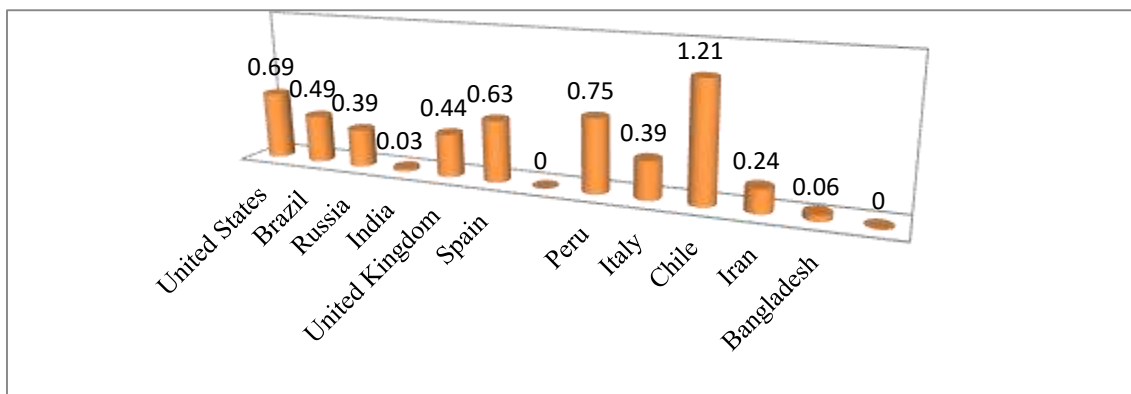


in Peru and Chile the test is also not mentionable. Because by the testing procedure the corona infected person is detected and then the necessary steps could be taken for better treatment of the people of the country.

**Table-4: Infected people**

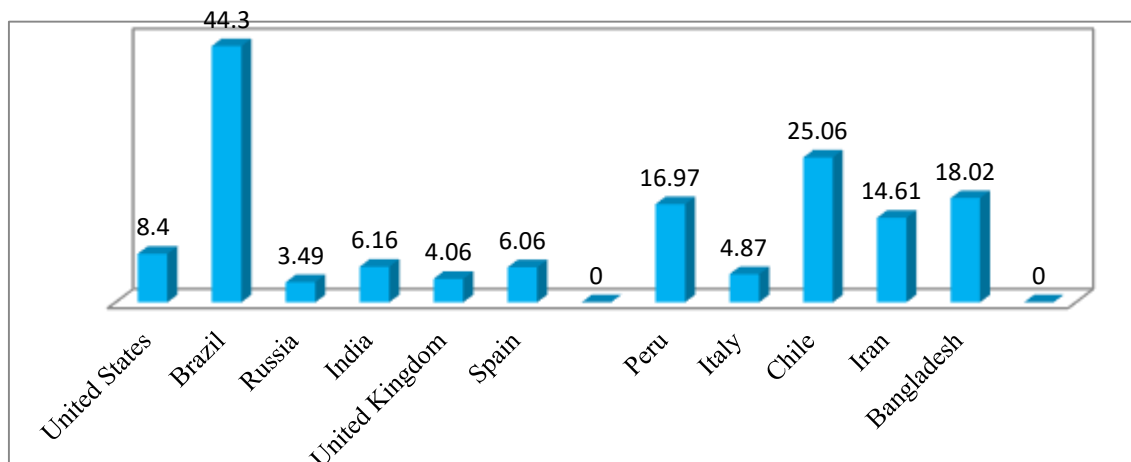
Sl	Name of the Country	Population-2020	Total Tested people	Infected People	Rate of Infected People as per total Population%	Rate of Infected People as per total tested people%
1	United States	330,944,050	27,337,385	2,297,190	0.69	8.40
2	Brazil	212,512,836	2,344,437	1,038,568	0.49	44.30
3	Russia	145,932,745	16,321,964	569,063	0.39	3.49
4	India	1,379,567,062	6,426,627	395,812	0.03	6.16
5	United Kingdom	67,875,356	7,433,114	301,815	0.44	4.06
6	Spain	46,754,281	4,826,516	292,655	0.63	6.06
7	Peru	32,956,067	1,461,266	247,925	0.75	16.97
8	Italy	60,464,181	4,889,103	238,011	0.39	4.87
9	Chile	19,111,018	923,513	231,393	1.21	25.06
10	Iran	83,956,634	1,370,718	200,262	0.24	14.61
	Bangladesh	164,636,385	585,548	105,535	0.06	18.02

### Rate of Infected people to total population%



**Figure-2: Rate of Infected people to total tested population**

### Rate of Infected people to total tested population



**Figure-3: Rate of infected people to total tested people**

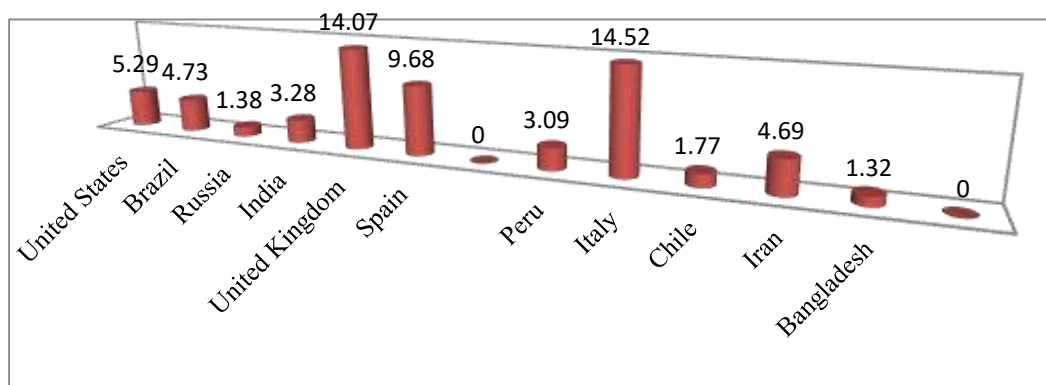
From Table-4, figure-2 & 3 it is depicted that the United States there are 330,944,050 people and test processed total 27,337,385 which is 8.26% of the total population and found infected 2,297,190 which is 0.69% of total population and 8.40% of the total tested people. In **Brazil** there are 212,512,836 people and test processed total 2,344,437 which is 1.10% of the total population and found infected 1,038,568 which 0.49% of total population and 44.30% of the total tested people. In Russia there are 145,932,745 people and test processed total 16,321,964 which is 11.18% of the total

population and found infected 569,063 which 0.39% of total population and 3.49% of the total tested people in **India** there are 1,379,567,062 people and test processed total 6,426,627 which is 0.47% of the total population and found infected 395,812 which 0.03% of total population and 6.16% of the total tested people. In **United Kingdom (UK)** there are 67,875,356 people and test processed total 7,433,114 which is 10.95% of the total population and found infected 301,815 which 0.44% of total population and 4.06% of the total tested people. In **Spain** there are 46,754,281 people and test processed total 4,826,516 which is 10.32% of the total population and found infected 292,655 which 0.63% of total population and 6.06% of the total tested people. In **Peru** there are 32,956,067 people and test processed total 1,461,266 which is 4.43% of the total population and found infected 247,925 which 0.75% of total population and 16.97% of the total tested people. In **Italy** there are 60,464,181 people and test processed total 4,889,103 which is 8.09% of the total population and found infected 238,011 which is 0.39% of total population and 4.87% of the total tested people. There are 19,111,018 people in **Chile** and test processed total 923,513 which is 4.83% of the total population and found infected 231,393 which is 1.21% of total population and 25.06% of the total tested people. In **Iran** there are 83,956,634 people and test processed total 1,370,718 which is 1.63% of the total population and found infected 200,262 which is 0.24% of total population and 14.61% of the total tested people. In **Bangladesh** there are 164,636,385 people and test processed total 585,548 which is 0.36% of the total population and found infected 105,535 which is 0.06% of total population and 18.02% of the total tested people.

**Table-5: Death people**

Sl	Name of the Country	Population-2020	Infected People	Death	Rate of death of infected people %
1	United States	330,944,050	2,297,190	121,407	5.29
2	Brazil	212,512,836	1,038,568	49,090	4.73
3	Russia	145,932,745	569,063	7,841	1.38
4	India	1,379,567,062	395,812	12,970	3.28
5	United Kingdom	67,875,356	301,815	42,461	14.07
6	Spain	46,754,281	292,655	28,315	9.68
7	Peru	32,956,067	247,925	7,660	3.09
8	Italy	60,464,181	238,011	34,561	14.52
9	Chile	19,111,018	231,393	4,093	1.77
10	Iran	83,956,634	200,262	9,392	4.69
	Bangladesh	164,636,385	105,535	1,388	1.32

### Rate of Death of infected people



**Figure-4: Rate of Death of infected people**

From Table-5 and figure-4 it is depicted that in the United States 121,407 people has died which is 5.29% of total infected people. In **Brazil** 49,090 people has died which is 4.73% of total infected people. In **Russia** 7,841 people has died which is 1.38% of total infected people. In **India** 12,970 people has died which is 3.28% of total infected people. In **United Kingdom (UK)** 42,461 people has died which is 14.07% of total infected people. In **Spain** 28,315 people has died which is 9.68% of total infected people. In **Peru** 7,660 people has died which is 3.09% of total infected people. In **Italy** 34,561 which is 14.52% of total infected people. In **Chile** 4,093 people has died which is 1.77% of total infected people. In **Iran** 9,392 people has died which is 4.69% of total infected people. In **Bangladesh** 1,388 people has died which is 1.32% of total infected people.

From the table-6 and Pie-Chart-8 as on June 19, 2020 we see that a good number of people i.e. 121,407 died in United States but from the pie chart figure-4, it covers the 8.5% of total area of total death people. In Italy there is the highest



number of death people i.e. 23% and the United Kingdom 22%, 15% in Spain, 7.5% in Brazil, 7% in Iran, 5% in India and Peru, 3% in Chile and 2% in Russia and Bangladesh.

## 5. Findings from data analysis

From the above discussion, we may say that out of total population in Bangladesh test occurred only 0.36% in Bangladesh and from the tested people the infected people is 18.02% which is third highest of charted countries and it is 0.06% of its total population and thus death rate is 1.32%. But it may be said that as much as test provision would be possible more the rate of infected people would be much more. In Russia total test occurred 11.18% of total population and infected people found only 3.49% which is 0.39% of its total population and thus total death occurred 1.38% which is very low in respect of tested people.

It is mentionable that from the report of world meter as on 17/07/2020 in China where the COVID-19 first rooted there have been made test of 90,410,000 people out of total 1,439,323,776 which is 6.28% and there has been found infected people 83,622\* which is 0.09% and total death occurred 4,634 people which is 5.54%. So we may say that as much as test will be increased the Government and the people would be aware for their next course of action and would also be able to keep them away from the infectious position and would be able to abide the guide line of the World Health Organization.

## 6. Effect of corona virus:

1. Social effect
2. Economic effect
3. Political effect
4. Others

Other effects have seriously been traced in the world. Some may be mentioned as postponement of public and private events and Friday prayers; closed schools, universities, shopping centres, bazars and banned festival celebrations. It is reported that the pandemic has caused the Global, Social and Economic disruption including the largest global recession since the Great Depression.

**The Effects of non-Test of Corona Virus:** It is observed that the rapidly growing corona virus infects at the human body those whose immune capacity of the body is very weak and very sensitive. The virus has spread almost 215 countries and territories within a very short time. This is happened due to the wave of digitization and also very unconsciousness of the people. One upon a time, it will be happened that almost all the members of the family of a country will be infected and someone's symptoms will not be seen and someone's symptoms will be deadly. The person whose immune capacity will be strong, the corona will not infect him. But people will understand that he has not been infected and thus he will work and will go elsewhere and will infect the other people whose immune capacity is less strong than that individuals. But if the corona test is done of all the members of the family then the infected person will be identified and it will be possible to take necessary steps by the individuals or by the state.

Otherwise the germ of corona virus will be born by decades by the nations. Gradually, a lot of people will be died and the state then will economically be affected and growth will be deteriorated. Apparently, it may be thought that there is no positive economic effect from corona test today, but in the long run the future result will be fruitful. So the corona virus test Booth may be made available and even the kit may be arranged as like pregnancy test is done and no fee may be charged on test. Because, a lot of people will go back or go beyond of corona test. In addition for corona test the concern authority should go door to door to collect sample of corona and should try to deliver the report within an hour. The Government should approve Rapid Kit of corona test so that test report may be delivered within a very short time.

**7. Remedial measures:** We know that the most protective measures such as limiting travel, avoiding crowds, social distancing, and thorough and frequent hand washing at least 20 seconds at a row. If the person or family member is infected anyway he or she has to remain quarantine or isolation for not less than 14 days.

These measures to reduce transmission of Covid-19 include individual and environmental measures, detecting and isolating cases, contact- tracing and quarantine, social and physical distancing measures including for mass gatherings, international travel measures, and vaccines and treatments.

While vaccines and specific medications are not yet available for Covid-19, other public health and social measures play an essential role in reducing the number of infections and saving lives.

## 8. Some pre-cautionary steps of individual keeping safe from infection of the coronavirus disease:

In December 2019 since corona has outbreak in Wuhan, China, rapidly, with 8.74 million confirmed cases in the world as of late June. According to the Centers for Disease Control and Prevention (CDC), the virus that causes the disease known as COVID-19 seems to be spreading in the community in certain affected geographic areas. As with any virus, however, there are simple steps we can take to protect ourselves.

1. For safety, things should be kept clean, washing hands often with soap and water for at least 20 seconds, especially after going to the bathroom; before eating; and after blowing nose, coughing, or sneezing.
2. Face mask of cloth made should be worn.
3. Close contact to be avoided and social distance as per guideline of WHO should be followed.
4. Unnecessary short of long distance traveling should try to be avoided.

In a nutshell, we may say that the individual should stay home and self-isolate himself even with minor symptoms such as cough, headache, mild fever, until recover. If it is need to leave house, he or she must have to wear a mask to avoid infecting others. Avoiding contact with others will protect them from possible Covid-19 and other viruses. If anybody is infected by fever, cough and difficulty breathing, have to seek medical attention, but call by telephone in advance if possible and follow the directions of local health authority.

### 11. Conclusion and recommendations:

The Covid-19 has been expanded since December-2019, Wuhan, China. This pandemic expanded to 215 countries and territories of the world within a very short time. Till date no country could able to innovate even an antibiotic or even any vaccine of the world to prevent themselves from the curse of the covid infection. So, it has been shown important to prevent themselves following the rules of the World Health Organization. Among the different ways corona test is one of the most vital issues to find out the infectious position of a men. As we know that it is the most sensitive virus and spread among the people momentarily. So if corona test can confirm more of a nation then it would be easier to take decision about the next course of action of an Individual or a nation by the person or the ruling authority. It is found from our study that in Bangladesh the lowest rate of test (0.36%) is done but the percentage of infectious people is found more (18.02%) from the analysis. But in Russia 11.18% people has been tested but infected people found only 3.49%. Thus for the next course of action the decision making i.e. lockdown, declaring red zone and curfew of these two countries, trading among the country will not be the same. It may also be recommended that the corona-test kits should be reached at the knocking of the door so that the people can test themselves as like pregnancy test at their door. Then the infected people could be able or his family or the benevolent would be able to take further action or safety measures for him or them.

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### Authors Biography



Mohammad Anowar Hossain, Ex-Student of Notre Dame College, completed successfully his Master of Social Science degree from Economics Department, University of Dhaka in the year 1997. He has obtained Ph.D Degree from American Independent University, California, USA in the year 2020. His research title was "Measuring the Contribution of Full-Fledged Islamic Banking to the Growth and Development of Bangladesh Economy." He has also obtained professional degree DAIBB (Diplomaed Associate of Institute of Bankers Bangladesh) in the year 2009. He is a Branch Manager of a renewed Islamic Commercial Bank of Bangladesh and continuing the same responsibilities since 2012 in different branches of the same Bank. He has received appreciation letters for contributing to the Bank on different angle from the concern authority in different years and also received National Award from Dhaka Electricity Generation Company Limited for remarkable performance in the year 2018. He has got training on different section of the Banking Industry i.e. General Banking, Investment and Foreign Trade. He is actively engaged in research activities through his academic and professional career for last five years.

