

# Statistic Assessment of Spreading Cases (Total Confirmed, Recovered, Death) From Different Areas Contain Novel Coronavirus (2019-n Cov)

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## Abstract

**Background:** In Wuhan, Hubei Province, China 31, December 2019 were discovered several cases of pneumonia of unknown causation and correlated to Wholesale Market Huanan Seafood. And caused acute viral respiratory diseases called Coronavirus Disease 2019 (COVID-19).

**Aim:** The aim of this study is statistic assessment of cases (total confirmed, recovered, death) from different areas in world, Arab nation and in Iraq contain 2019-n CoV.

**Methods:** The first study include collected data from Center for System Science and Engineering (CSSE) at John's Hopkins University and Iraqi Ministry of Health website daily reports from 29<sup>st</sup> February to 31<sup>th</sup> December 2020 of people infected with 2019- nCoV.

**Results:** From this statistics the prevalence of 2019-nCoV the spreading cases (83.561.252 total confirmed, 47.136.188 global recovered and 1.820.668 global death) from 191 countries in the world. The most distribution confirmed cases represent in (19.975.250 US, 10.286.709 India, 7.675.973 Brazil, 3.153.960 Russia, 2.677.806 France, 2.496.231 United Kingdom, 2.208.652 Turkey, 2.107.166 Italy). Also global recovered represent in (9.883.461 India, 6.848.844 Brazil, 2.553.467 Russia, 2.100.650 Turkey, 1.508.419 Colombia, 1.463.111 Italy, 1.426.676 Argentina, 1.355.384 Germany). And global death represent in (345.844 US, 194.949 Brazil, 148.994 India, 125.807 Mexico, 74.159 Italy, 73.622 United Kingdom, 64.760 France, 56.798 Russia). From this result the Arab nation including 3.139.205 total confirmed cases, 2.783.448 recovered cases and 55.326 death cases from 21 countries infected with 2019-n CoV between this result the Iraqi infected patients represent 595.291 total confirmed cases, 537.841 recovered cases and 12.813 death cases.

**Conclusions:** In concluded, the percentage of 2019-n CoV increase in all the global confirmed cases in different areas of the world and become pandemic. In Iraq show the infection is mild to moderate in spite of no special antiviral and vaccine is present.

**Key Word:** 2019 Novel Coronavirus (2019 n-CoV), Cases (infection, recovered, death), different countries, Pandemic.

## Introduction

In Wuhan, Hubei Province, China 31, December 2019 were discovered several cases of pneumonia of unknown causation and correlated to Wholesale Market Huanan Seafood<sup>1</sup>. And caused acute viral respiratory diseases called Coronavirus Disease 2019 (COVID-19)<sup>2</sup>.

Began, in Wuhan and rapidly diffused into different area of China, many factors were accountable for this fast diffuse of the virus to various groups like; different route of infection, virulence of virus and peoples capability<sup>3</sup>. World health organization (WHO) were pronounced as a universal public health emergency because, the type of pneumonia caused by the COVID-19 is continued

outbreak and a highly contagious<sup>4</sup>. Declared on March 11, 2020 as a cosmopolitan pandemic<sup>5</sup>. In the past two decades that has emerged the third coronavirus causing multinational outbreaks and transferring substantial mortality and morbidity<sup>6,7</sup>. The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was named by International Committee on Taxonomy of Viruses (ICTV), which is novel strain of human coronaviruses<sup>8</sup>. Coronaviruses belong to the subfamily Coronavirinae, stranded RNA viruses are single positive, enveloped, the length of genome ranging from 26 to 32 kilo-bases, possibly known the largest viral RNA<sup>9,10</sup>. The four genera of subfamily Coronavirinae consists of: Alphacoronavirus, Betacoronavirus, Gammacoronavirus and Deltacoronavirus. the infectious only to mammals are Alphacoronaviruses and Betacoronaviruses genera while infectious to birds are Gammacoronaviruses and Deltacoronaviruses, but also some of them can infect mammals<sup>11</sup>.

Also have been known in many avian hosts<sup>12,13</sup>. Coronaviruses in various animals may cause infections in multiple systems, and in humans cause mainly respiratory tract infections.<sup>14</sup> Even though most coronavirus infections in human are mild, the two betacoronaviruses epidemics, Middle East respiratory syndrome coronavirus (MERS-CoV), and severe acute respiratory syndrome coronavirus (SARS-CoV), have caused in the past two decades cumulative cases more than 10 000, with 37% mortality ranges for MERS-CoV and 10% for SARS-CoV<sup>15</sup>. At the same time, the transmission human-to-human was confirmed and staff caring for patients were reported infections with 2019-nCoV in hospital<sup>16</sup>. And mainly spread through respiratory droplets or close contact, latest suggest possibility of oral-fecal route transmission<sup>17</sup>. Transmission of droplet may occur out of tears, close contact and fomites around the infected person by immediate environment<sup>18, 19</sup>. The range of incubation period was 1 to 14 days with average five days and experience signs within 11 to 12 days approximately 95 % of contact patients<sup>20, 21, 22</sup>. During the incubation period when patients show without symptoms is believed the

novel coronavirus may be infectious<sup>23</sup>. The potential sources of SARS-CoV-2 infection is asymptomatic transporters<sup>24</sup>. The most popular symptoms of the COVID-19 which are like to that of MERS-CoV and SARS-CoV infection: fever, dry cough, fatigue, lethargy and muscle pains<sup>25</sup>. The clinical presentation range from mild to severe, but the high case-fatality rate show in elder patients or comorbidities patients, such as diabetes, hypertension, chronic renal failure, cardiomyopathy, decreased immunity and chronic obstructive pulmonary disease<sup>26</sup>. WHO enabled various laboratories to produce reverse-transcription diagnostic polymerase chain reaction (RT-PCR) test especially for revelation of viral RNA, due to the genetic sequence of the 2019-nCoV was obtainable<sup>27</sup>. CT findings mainly in the lower lung lobes consist of bilateral multipolar ground-glass obscurities, with marginal posterior distribution<sup>28</sup>. when the RT-PCR screening test is negative, chest CT may prove to be a precious savings because it may display distinctive features of the disease<sup>29</sup>. The own immune status becoming the majority definitive agents affecting disease progression and predication, due to the absence of vaccine and specific antiviral drugs<sup>14</sup>. Clinically researched to discovery any thinkable treatment for COVID-19, by many antiviral complex that are applied to treat other infections<sup>30</sup>

## Methods

The first study include collected data from Center for System Science and Engineering (CSSE) at John's Hopkins University and Iraqi Ministry of Health website daily reports from 29<sup>st</sup> February to 31<sup>th</sup> December 2020 of people infected with 2019-nCoV.

## Statistical Analysis

The next step of this study analyze the data calculated using (IBM SPSS statistics 20) they include the following:

Descriptive statistics: Statistical tables including observed frequencies with their percentages. Inferential statistics: for statistical hypotheses which maybe accept or reject, Persons Chi-Square test ( $\chi^2$ ) at level of

significance 0.05.

### Result

From this statistics the prevalence of 2019-nCoV the spreading cases (83,561,252 total confirmed, 47,136,188 global recovered and 1,820,668 global death) from 191 countries in the world show in Figure (1). The most distribution confirmed cases represent in (19,975,250 US, 10,286,709 India, 7,675,973 Brazil, 3,153,960 Russia, 2,677,806 France, 2,496,231 United Kingdom, 2,208,652 Turkey, 2,107,166 Italy). Also global recovered represent in (9,883,461 India, 6,848,844 Brazil, 2,553,467 Russia,

2,100,650 Turkey, 1,508,419 Colombia, 1,463,111 Italy, 1,426,676 Argentina, 1,355,384 Germany). And global death represent in (345,844 US, 194,949 Brazil, 148,994 India, 125,807 Mexico, 74,159 Italy, 73,622 United Kingdom, 64,760 France, 56,798 Russia). From this result the Arab nation including 3,139,205 total confirmed cases, 2,783,448 recovered cases and 55,326 death cases from 21 countries infected with 2019-nCoV show in Figure (2) between this result the Iraqi infected patients represent 595,291 total confirmed cases, 537,841 recovered cases and 12,813 death cases show in Figure (3).



Figure (1): Spreading Cases (Total Confirmed, Global Recovered, Global Death) in the World.

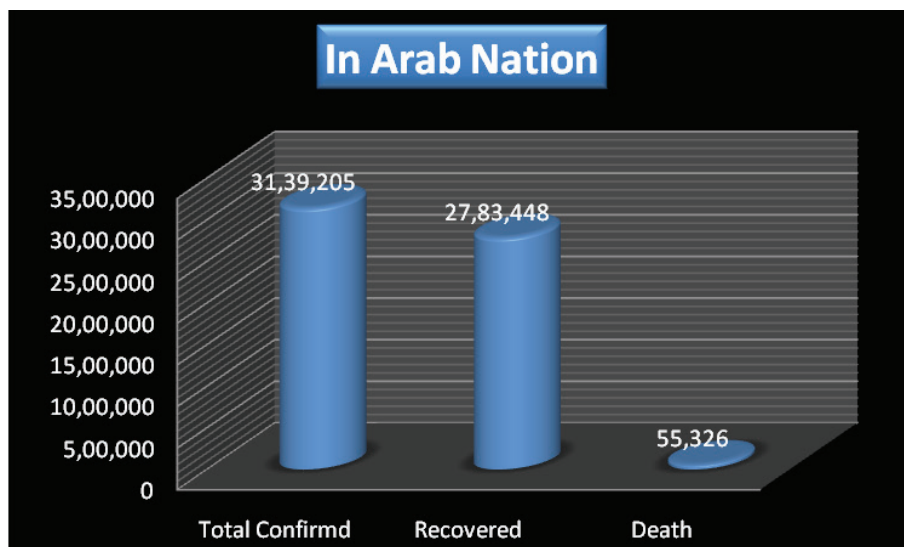


Figure (2): Spreading Cases (Total Confirmed, Recovered, Death) in the Arab Nation

**Table (1): Distribution of Cases (Infection, Recovered, Death) in Arab Nation from different Countries.**

Region	Cases						Total	
	Infection		Recovered		Death		No	%
	No	%	No	%	No	%		
Iraq	595291	(51.9)	537841	(46.9)	12813	(1.1)	1145945	(100.0)
Morocco	439193	(51.4)	407504	(47.7)	7388	(0.9)	854085	(100.0)
Saudi Arabia	362741	(50.2)	353853	(49.0)	6223	(0.9)	722817	(100.0)
Jordan	294494	(51.8)	270551	(47.6)	3834	(0.7)	568879	(100.0)
United Arab Emirates	209678	(52.9)	186019	(46.9)	671	(0.2)	396368	(100.0)
Lebanon	181503	(58.4)	127959	(41.2)	1468	(0.5)	310930	(100.0)
Kuwait	150584	(50.5)	146517	(49.2)	934	(0.3)	298035	(100.0)
Qatar	144042	(50.4)	141556	(49.5)	245	(0.1)	285843	(100.0)
Tunisia	139140	(55.8)	105364	(48.3)	4676	(1.9)	249180	(100.0)
Egypt	138062	(53.6)	112105	(43.5)	7631	(3.0)	257798	(100.0)
Oman	128867	(51.1)	121890	(48.3)	1499	(0.6)	252256	(100.0)
Libya	100744	(57.4)	73252	(41.7)	1499	(0.9)	175495	(100.0)
Algeria	99610	(58.8)	67127	(39.6)	2756	(1.6)	169493	(100.0)
Bahrain	92675	(50.6)	90217	(49.2)	352	(0.2)	183244	(100.0)
Sudan	23316	(60.9)	13524	(35.3)	1468	(3.8)	38308	(100.0)
Mauritania	14364	(55.1)	11380	(43.6)	347	(1.3)	26091	(100.0)
Syria	11434	(65.4)	5350	(30.6)	711	(4.1)	17495	(100.0)
Djibouti	5831	(50.2)	5728	(49.3)	61	(0.5)	11620	(100.0)
Somalia	4714	(55.7)	3612	(42.7)	130	(1.5)	8456	(100.0)
Yemen	2099	(51.2)	1394	(34.0)	610	(14.9)	4103	(100.0)
Comoros	823	(53.5)	705	(45.8)	10	(0.7)	1538	(100.0)
Total	3139205	(52.5)	2783448	(46.6)	55326	(0.9)	5977979	(100.0)
P-Value	0.000							

P-value < 0.05 in 2-sided is non-significant.

**Table (2): Distribution of Cases (Infection, Recovered, Death) in Iraq from different Months:**

Date	Cases			Total No %
	Infection No %	Recovered No %	Death No %	
February	13 (100.0)	0 (0.0)	0 (0.0)	13 (100.0)
March	681 (75.6)	170 (18.9)	50 (5.5)	901 (100.0)
April	1391 (52.7)	1205 (45.7)	43 (1.6)	2639 (100.0)
May	4354 (69.7)	1781 (28.5)	112 (1.8)	6247 (100.0)
Jun	42670 (64.6)	21604 (32.7)	1738 (2.6)	66012 (100.0)
July	75500 (53.6)	62674 (44.5)	2798 (2.0)	140972 (100.0)
August	110325 (54.7)	89168 (44.2)	2301 (1.1)	201794 (100.0)
September	128047 (52.1)	115595 (47.0)	2139 (0.9)	245781 (100.0)
October	109649 (50.1)	107458 (49.1)	1729 (0.8)	218836 (100.0)
November	79919 (48.6)	83019 (50.5)	1348 (0.8)	164286 (100.0)
December	42742 (43.4)	55167 (56.0)	555 (0.6)	98464 (100.0)
Total	595291 (51.9)	537841 (46.9)	12813 (1.1)	1145945 (100.0)
P-value	0.000			

P-value < 0.05 in 2-sided is non-significant.

## Discussion

There are three outbreaks in the world of highly pathogenic CoVs has experienced contain SARS-CoV emergence in 2002, MERS-CoV in 2012 and 2019-nCoV outbreak now<sup>31</sup>. It has been bat is the primary host that is postulated and 2019-n CoV is another lineage B-COV that is clear<sup>32</sup>. It was specified by the Chinese Center for Disease Control and Prevention COVID-19, also called is 2019-nCoV previously by the world Health Organization<sup>33</sup>. The new COVID-19 is a persistent pandemic that makes perplexity and scare around the world<sup>34</sup>. The cases increased from beginning

in December 2019 were examined in Wuhan, China, to this moment I was writing the research, the numeral of confirmed cases raising dramatically in all the world and reach to (83.561.252 total confirmed, 47.136.188 global recovered and 1.820.668 global death) this spreading cases show in Figure (1). And refers for the most cases only [(19.975.250 US, 10.286.709 India, 7.675.973 Brazil) most global recovered is (9.883.461 India, 6.848.844 Brazil, 2.553.467 Russia) and the most global death is (345.844 US, 194.949 Brazil, 148.994 India)]. Due to the existing of infectious disease the characteristic of COVID-19 outbreak and control cannot

be used to observed the data and describe directly. The survey is making similar to other studies from 80 to 90% carrying outperformed during the COVID-19 outbreak in China<sup>35</sup>. Including the application of extraordinary public health measures throughout the world on traditional strategies of social distancing, quarantine, isolation and community containment. Also, took some aggressive measurement inclusive the shutdown of workplaces, schools, cancellation of public gatherings, roads and transit systems, compulsory quarantine of uninfected people without known disclosure to COVID-19<sup>36, 37</sup>. In Figure (2) show spreading cases (total confirmed 3,139,205, recovered 2,783,448, death 55,326) in the Arab Nation. The most cases show in Table (1) [Infection in Iraq 595,291 (51.9), Morocco 439,193 (51.4), Saudi Arabia 362,741 (50.2), Jordan 294,494 (51.8), most recovered in Iraq 537,841 (46.9), Morocco 407,504 (47.7), Saudi Arabia 353,853 (49.0), Jordan 270,551 (47.6) and most death in Iraq 12,813 (1.1), Egypt 7,631 (3.0), Morocco 7388 (0.9), Saudi Arabia 6,223 (0.9)]. The p-value 0.000 in 2-sided represent non-significant result. Spreading cases (total confirmed 595,291, recovered 537,841, death 12,812) in the Iraq show in Figure (3). On 24 February 2020, the first assured case of COVID-19 has been recorded in Iraq from Najaf province to Iranian student came from Iran, followed on 25 February, in Kirkuk province from one family by four cases, they have as well travel date to Iran. on 27 February, An additional case was registered in Baghdad, for a patient who visited Iran lately. The distribution of cases (infection, recovered, death) in Iraq from different Months show in Table (2) which began the first weeks in 24<sup>st</sup> February to 31<sup>th</sup> December 2020 the p-value 0.000 in 2-sided represent non-significant result. During this time the infection is increase due to some people is close contact being within the room of a novel coronavirus case for a long period of time while not wearing bespoke personal covering equipment, living with, visiting, or input a health care suspense area or room with a novel coronavirus case or having direct contact with contagious excretion of a novel coronavirus case while not wearing counseled personal preservative tools. In Iraq the percentage of mild to moderate in

severity until to represent 80 % and the percentage of chronic represent 20 % in elder patients or comorbidities patients, such as diabetes, hypertension, chronic renal failure, cardiomyopathy, decreased immunity and chronic obstructive pulmonary disease this led to death<sup>38, 39</sup>.

## Conclusion

In concluded, the percentage of 2010-n CoV increase in all the global confirmed cases in different areas of the world and become pandemic. In Iraq show the infection is mild to moderate in spite of no special antiviral and vaccine is present.

**Ethical Clearance :** Nil

**Source of Funding:** Self

**Conflict of Interest:** Nil

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