

Global burden of COVID-19: Situational analysis and review

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Abstract.

BACKGROUND: The novel Coronavirus Disease 2019 (COVID-19) is the major public health burden in the world. The morbidity and mortality of the global community due to this disease is dramatically increasing from time to time.

OBJECTIVE: This situational analysis is aimed to analyse prevalence and incidence of COVID-19 and to provide clear information about this disease for the scientific community, stakeholders, healthcare practitioners and decision-makers.

METHODS: The literatures were identified by searching the key relevant and officially known online databases: medRxiv, Google scholar and PubMed. The online databases contain archives of most English biomedical journals and scientific papers published online from 31 December to 3 April 2020 were included. After the literature search, articles were screened independently by two reviewers for eligibility.

RESULTS: The world continents have confirmed a total of 1,202,320 confirmed COVID-19 cases: (51.2%) in Europe, (27.7%) in North America, (17.9%) in Asia, (1.96%) in South America and at less number of confirmed COVID-19 cases in Africa and Australia which was accounted 0.8% and 0.5%, respectively. However, this review showed that there was a significant increase in the confirmed COVID-19 cases by 109,555 in Asia, 8,658 in Africa, 332,866 in North America, 20,269 in South America, 568,894 in Europe, 5,051 in Australia and 1,045,403 in the whole world, with the exception of Antarctica, during the review period. The overall results showed that there were 1,098,762 cases and 59,172 deaths recorded during the review period. The result zero number of deaths with COVID-19 was observed in 66 countries.

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CONCLUSION: The review concluded that COVID-19; SARS-CoV-2 is the major public health burden in the world, the morbidity and mortality of global community is dramatically increasing from time to time. Strong collaboration among all sectors and the design of effective prevention and control strategies which include staying home, social/physical distancing, quarantine, testing of suspected patients, isolation and managing of the confirmed cases. Therefore, all countries should implement five major COVID-19 prevention and control programmes as soon as possible at community level.

Keywords: COVID-19, confirmed cases, deaths, prevention and control, review

1. Introduction

The word corona virus have been suggested with different scientists; however, novel coronavirus disease 2019 (COVID-19) and “pneumonia” with no language or time restrictions official seen [1]. Coronaviruses are a large group of viruses that are known to infect both humans and animals, and causes respiratory illness in humans with symptoms that range from common colds to much more serious infections. The COVID-19; SARS-CoV-2 spreads faster than its two ancestors, Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) and Middle East Respiratory Syndrome Coronavirus (MERS-CoV), but has lower fatality. The global impact of this new epidemic is yet uncertain [2]. Relevant reports have pointed out the novel coronavirus has 80% homology with SARS [3,4].

The most well-known case of a coronavirus epidemic was Severe Acute Respiratory Syndrome (SARS), which, after first being detected in southern China in 2002, went on to affect 26 countries and resulted in more than 8,000 cases. An outbreak of a pneumonia-like illness that started in the Chinese city of Wuhan has put health authorities on high alert around the world. It has led cities to be cordoned off, caused airlines to cancel flights to and from China and has disrupted global supply chains. The new coronavirus named 2019-nCoV is thought to have originated in the food market of the central China metropolis and has since infected more than 6,000 people [5].

The COVID-19 is thought to have originated in the food market of the central China metropolis and has since infected more than 7,500 people. Deaths and cases are likely to rise until the outbreak is contained. Jurisdictions with cases confirmed as of 30 January 2020, 5:30 AM GMT +3:30, about 7,815 Confirmed cases and 170 Deaths worldwide. According to Lai et al. (2020), the status of confirmed case in Mainland China in 2020 was 170 deaths, 1,370 severe cases, 6,047 confirmed cases and 124 discharged from hospitals [5].

China first reported the outbreak on 31 December 2019, most of the deaths have been in Hubei province,

where Wuhan is the capital. Chinese authorities have restricted some travel to try and stop the illness since 23 January 2020 and China’s financial markets remained closed until Monday 3 February 2020 after authorities extended the Lunar New Year holiday break by three days. The confirmed cases in Mainland China by Province are observed evidence for this critical outbreak world wide. The World Health Organisation [5], China office heard the first reports of a previously unknown virus behind a number of pneumonia cases in Wuhan, a city in Eastern China with a population of over 11 million [6].

Since then, the virus has infected more than 5,974 people globally. Although the vast majority of cases are in China, coronavirus has reached as far as the US, France, Australia, Japan, Canada and South Korea. One hundred and thirty-two people have died, with no reported fatalities outside of China. Experts are worried that the virus’ mild symptoms will cause those who carry it to unsuspectingly to transmit it too far and fast. A 10-year-old boy was diagnosed with the coronavirus despite showing no symptoms [5].

According to the Wuhan Bureau of Statistics, U.K. Office for National Statistics, U.S. Census Bureau, World Bank, in Wuhan, public transportation and ride-hailing services have been suspended, trains and flights from the city have been stopped and inhabitants have been told to leave only for essential reasons. Similar travel restrictions were announced in at least 11 other Chinese cities, impacting more than 40 million people. On 31 December 2019, WHO was alerted to several cases of pneumonia in Wuhan City, Hubei Province of China. The virus did not match any other known virus. This raised concern because when a virus is new, its dynamicity is unknown [6].

One week later, on 7 January 2020 Chinese authorities confirmed that they had identified a new virus. The new virus is a coronavirus, which is a family of viruses that include the common cold, and viruses such as SARS and MERS. This new virus was temporarily named “2019-nCoV”. The number of cases of COVID-19 outside China has increased 13 fold, and the number

of affected countries has tripled in the past two weeks. There are now more than 118,000 cases in 114 countries, and 4,291 people have lost their lives. Thousands more are fighting for their lives in hospitals. In the days and weeks ahead, a number of persons are affected and dead in different countries. The novel COVID-19 is the major public health burden in the world. The morbidity and mortality of global community due to this disease is dramatically increasing from time to time. The spread and severity of the virus has been dramatically increasing across the world [5].

The present literature review was aimed to analyse prevalence, and incidence of COVID-19. It provides clear information about this disease for the scientific community, stakeholders and healthcare practitioners and decision-makers in order design effective prevention and control strategies.

2. Methods

2.1. Study area and period

The literature review was conducted on World Regions from Largest to smallest area are Asia, Africa, North America, South America, Antarctica, Europe and Australia. Five steps were followed to conduct this systematic review which include identifying a clear research objective and search strategies; identifying relevant research articles; selection of research articles; extraction and charting of data; and discussing, analyzing, and summarizing of the results. The scientific publications from 31 December 2019 to 3 April 2020 were included.

2.2. Data collection and search databases

The literatures were identified by searching the key relevant and officially known online databases: medRxiv, Google scholar and PubMed. The online databases contain archives of most English biomedical journals. Scientific papers published online by WHO, CDC, each country's Ministry of health, governmental and official media, reports, books and reputable journal published papers, news papers and magazines related and were also included for this analysis. The COVID-19 was key search terms were used in this review. Active cases as such currently infected and/or confirmed cases, in mild and severe or critical condition and closed cases including case which had an outcome, recovery, discharged and over all deaths were identified using relevant searching engines and data bases.

In this review, the confirmed cases in 1 million population, recovered and total death of population at world continents and the difference among countries. Moreover, the research team was identify the percentage of COVID-19 deaths occurring in Hospitals, at home, other health care institutions and newly established poorary COVID-19 emergency management centers, geographic vibration, common characteristics of COVID-19, consequences and to take advantage of health care providers contact and follow the WHO five major prevention and control methods to slow and reduce transmission of COVID-19 across the analyzed world continents.

2.3. Data collection and analysis

After the literature search, articles were screened independently by two reviewers for eligibility. A third reviewer was consulted to resolve disagreements. We included studies published in English. The reviewers has independently reviewed the titles, published year and abstracts against eligibility criteria.

3. Results

A total of 47,208 (100%) deaths occurred among those with range of 1–200 were occurred in 129 countries (62.3%), 8 countries (3.8%) were more than 100 deaths, two countries (0.9%) were from 801–1000 deaths and only one countries (0.8%) were from 401–600 death occurred. However, 66 countries (31.8%) had have not any registered deaths within the study period. These deaths had registered based on the daily reported relevant website and other evidence during, before and after 14 days results of COVID-19 diagnostic test evaluation.

Now a day, United states, Spain, China, France, Iran, United Kingdom, and Netherland are experienced to increasing number of death even they have had implementation guideline, practices and rule and regulation related WHO prevention and control methods. Meanwhile, Germany, Belgium, Switzerland, Turkey, Brazile, and seweden also registred countries with high rate of deaths due to COVID-19 from 31 December 2019 to 3 April 2020. Among those countries with no registered a corona virus caused deaths like Ethiopia, Latvia, Kuwait, Reunion, Vietnam, Malta, FaroeIslands, Georgia, Kyrgyzstan, Cambodia, Rwanda, Liechtenstein, Gibraltar, Madagascar, Arube, Monaco, French Guiana, Barbados, Uganda, Macao, French Polymesa, Zambie,

Djibouti, Bermuda, Guinea, Maldives, New Caledonia, Equatorial Guinea, Eritrea, Haiti, Mongolia, Namibia, Saint Lucia, Dominica, Greenland, Grenada, Libya, Mozambique Seychelles, Suriname, Benin, Eswatini, Guyana, Bissau, Laos, Saint Kitts and Nevis, Antigua and Barbuda, Chad, Central Africa Republic, Liberia, Saint Bathelmy, Vatican City, Fiji, Montserrat, Nepal, Turks and Caicos Islands, Aland Island, Bhutan, Belize, British Virgin Islands, Somalia, Anguilla, Burundi, Sierra Leone, Papua New Guinea, Saint Vincent and the Grenadines and Timor-Leste are need great attention with their regional, National and local governments. The 'zero' result means it is not mean that they are free from death; however, they could not registered any death from their confirmed people in the national level.

The result also showed that most of the countries (62.3%) death ranges from 1–200 were under high risk to grow up their death, if their community could not implemented the command post of each countries government to slow COVID-19 transmission. For example, Philippines, Ecuador, Romania, Ireland, Algeria, Japan, Dominican Republic, Iraq, Egypt, Greece, Peru, Malaysia, Norway, Poland, India, Czechia, Morocco, Panama, Mexico, Luxembourg, Serbia, Argentina, San Marino, Pakistan, Israel, Russia, Australia, Ukraine, Hungary, Colombia, Finland, Saudi-Arabia, Chile, Burkina Faso, Slovenia, Albania, Andorra, Lebanon, Bosnia and Herzegovina, Thailand, Tunisia, North Macedonia, Honduras, Bulgaria, Cyprus, Democratic Republic of the Congo, United Arab Emirates, Lithuania, Bolivia, Croatia, Cameroon, Cuba, Mauritius, Guadeloupe, South Africa, Estonia, Moldova, Azerbaijan, Taiwan, Jordan, Ghana, Trinidad and Tobago, Niger, Bangladesh, Singapore, Hong Kong, Bahrain, Afghanistan, Kazakhstan, Venezuela, Martinique, Paraguay, Jamaica, Mali, Iceland, Qatar, Costa Rica, Uruguay, Uzbekistan, Nigeria, Belarus, Republic of the Congo, Sri Lanka, Montenegro, Jersey, Northern Cyprus, El Salvador, Togo, Saint Martin, Syria, Angola, Sudan, New Zealand, Slovakia, Oman, Cote d'Ivoire, Senegal, Palestine, Brunei, Kosovo, Mayotte, Guernsey, Kenya, Isle of Man, Guatemala, The Bahamas, Tanzania, Gabon, Sint Maarten, Myamas (Burmia), Cayman Islands, Guyana, Curacao, Zimbabwe, Cape Verde, Mauritania, Botswana, Nicaragua, and Gambia are presented from those countries need design the urgent information communication centers, waiting areas, legislation, surveillance, effective outbreak diseases management systems, support with world health professionals and can be targeted and redesigned serious rule and regulation of how slow the transmission of COVID-19 with community support in

order to increase community acceptance of and adherence to prevention and control methods of COVID-19 (Table 1).

The results of the review was also indicated the disease are affecting all community without gender, age, ethnicity group, race, Nationality, length, weight, width and other factors differences. However, there was a major difference in total number of deaths due to COVID-19 across continents and countries of the world. Italy with highest number ($n = 1,155$; 25.5%) of COVID-19 deaths recorded when compared with other 18 countries: Spain ($n = 9,387$; 19.9%), United State ($n = 5,115$; 10.8%), France ($n = 4,025$; 8.5%), China ($n = 3,312$; 7%), Iran ($n = 3,036$; 6.4%), United Kingdom ($n = 2,352$; 5%), Netherland ($n = 1,173$; 2.5%), Germany ($n = 931$; 2%), Belgium ($n = 828$; 1.7%), Switzerland ($n = 488$; 1%), Turkey ($n = 277$; 0.6%), Sweden ($n = 259$; 0.54%), Brazil ($n = 240$; 0.5%), Portugal ($n = 187$; 0.45%), South Korea ($n = 169$; 0.32%), Austria ($n = 146$; 0.3%), Canada ($n = 111$; 0.2%), and Denmark ($n = 104$; 0.22%). This indicated that COVID-19 were killed the largest number of population in Italy which followed by Spain and United States of America (Fig. 1).

The result zero number of deaths with COVID-19 was observed in 66 countries that don't mean that the health care facilities are excellent or adequately tested all suspected and affected people compared to their own total number of population who are living in each country. This might be due to lack of laboratory diagnostic evaluation centers, lack of skilled COVID-19 experts, low socioeconomic status and weak recording and reporting system. However, the finding showed that about ten countries had experienced to investigated many people and had confirmed between 100 and 500 confirmed COVID-19 cases in their country, For example, Latvia (446), Kuwait (317), Reunion (281), Vietnam (218), Malta (188), Faroe Islands (173), Kyrgyzstan (111) and Cobodie (109) and the remain 56 countries with less than 100 confirmed case including Ethiopia with 31 confirmed COVID-19 cases (Table 2).

Table 3 below, showed that the emerging of COVID-19 on 31 December 2019 in Wuhan city of China had been seen as Endemic and then transmitted to neighbor countries due to low extent of prevention and this transmittable disease. The majority (95%) of currently infected patients at active cases were mildly infected and the remain 39,391 (5%) were serious or critical condition related to COVID-19. In closed case, there was about 288,095 (100%) of cases which had an outcome, among those 228,923 (79%) were recovered and

Table 1
Total deaths due to coronavirs disease 2019 from 31 December 2019 to 3 April 2020

Roll No	Classification of death	No	%	List of vulnerable countries
1	Zero (0)	66	31.8	Ethiopia, Latvia, Kuwait, Reunion, Vietnam, Malta, FaroeIslands, Georgia, Kyrgyzstan, Cambodia, Rwanda, Liechtenstein, Gibraltar, Madagascar, Arube, Monaco, French Guiana, Barbados, Uganda, Macao, French Polymes, Zambia, Djibouti, Bermuda, Guinea, Maldives, New Caledonia, Equatorial Guinea, Eriteria,Haiti, Mongolia, Namibia, Saint Lucia, Dominica, Greenland, Grenada, Libya, Mozambique Seychelles, Suriname, Benin, Eswatini, Guyinea, Bissav Laos Saint Kitts and Nevis, Antigu and Barbuda, Chad, Central Africe Republic, Liberia, Saint Bathelay, Vatican City, Fiji, Montserral, Nepal, Turks and caicosIslands, Aland Island, Bhutan, Belize, British, Virgon, Islands, Somalia, Anguilla, Burundi Sierraleone, Papula New Guinea, Saint Vincent and Grenadines and Timor-Leste
2	1–200	129	62.3	Philippines, Ecuador, Romania, Ireland, Algeria, Japan, Dominican Republic Iraq, Egypt, Greece, Peru, Malaysia, Norway, Poland, India, Czechia, Morocco, Panama Mexico, Luxembrig Serbia, Argentina, San Marino Pakistan, Israel, Russia, Australia, Ukraine, Hungary, Colombia, Finland, Saudi-Arabia, Chile, Burkina Faso. Slovenia, Albania, Andorra Lebanon, Bosina, Heregovia, Thailand, Tunisia, North Macedonia, Honduras Bulgaria Cryprus Democratic Republic of the Congo, United Arab Emirates, Lithuania, Bolivia, Croatia, Cameroon, Cuba, Mauritius Guladeloupe, South Africa, Estonia, Moldora, Azerbaijan, Taiwan, Jordan, Ghana, Trndad and Tobago, Niger, Bangladesh, Singapore, Hingkong, Bahrain, Afghanstian, Kazakhstan, Venezuela, Martinique, Paraguay, Jamaica, Mali, Iceland, Qatar , Costarica, Urugay, Uzbekistan, Nigeria, Belarus, Republic of the Congo, Srilanka, Mentenegro Jersey, Northern Cryprus, Elsalvador, Tago, Saint martin, Syria, Angola Sudan, Newzerland, Slovakia, Oman, Cotedlvore, Senegal, Palestine, Brunci, Kosovo, Mayotte, Guernsey, Kenya, Isleof Man, Guatemala, Bahamas, Tanzania, Gabon, Sintmaarten, Myamas (Burnia) Cayman Islands, Guyana, Curacao, Zimbabwe, Capeverde, Mauritania, Botswana, Nicaragua and Gambia
3	201–400	3	1.4	Turkey, Brazil, Sweden
4	401–600	1	0.8	Switzerland
5	601–800	0	0	NA
6	801–1000	2	0.9	Germany, Belgium
7	≥ 1001	8	3.8	United State, Italy, Spain, China, France, Iran, United Kingdom, Netherland
Total		207	100	

Source: British antarctic survey [7].

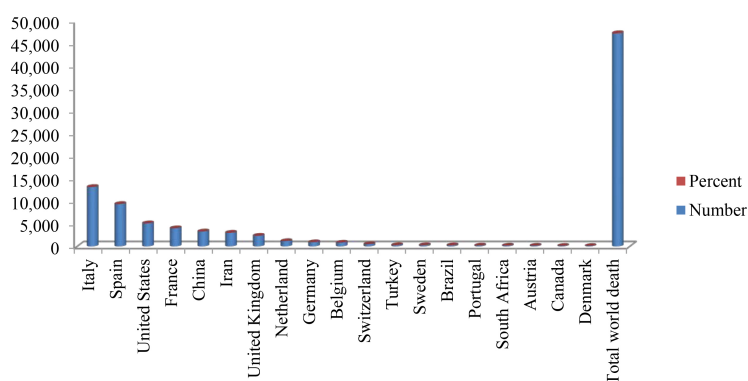


Fig. 1. Percentage of more than 100 number of deaths with COVID-19 in 19 countries from 207 registered COVID-19 vulnerable countries.

discharged from Hospital and other COVID-19 emergency care centers and 59,172 (21%) died due to the disease. The finding also indicated that there was new cases about 756 in various world nations including the origin of the COVID-19 country, China. Thirty one new deaths has registered in the world continent up to 3 April 2020. Regarding a total cases and deaths in 1 million

population were occurred 141.0 and 7.6, respectively.

The overall results showed that there were 1,098,762 cases and 59,172 deaths have recorded from during the review period. The transmission and death rate due to COVID-19 is continues to be major concern for global communities, with the number of people compelled by lack of any option to use five major WHO prevention

Table 2
Zero death due to Coronavirs Disease 2019 from 31 December 2019 to 3 April 2020

Roll No	Country	Roll No	Country
1	Ethiopia	24	Bermuda
2	Latvia	25	Guinea
3	Kuwait	26	Maldives
4	Reunion	27	New Caledonia
5	Vietnam	28	Equatorial Guinea
6	Malta	29	Eriteria
7	FaroeIslands	30	Haiti
8	Georgia	31	Mongolia
9	Kyrgyzstan	32	Namibia
10	Cambodia	33	Saint Lucia
11	Rwanda	34	Dominica
12	Liechtenstein	35	Greenland
13	Gibraltar	36	Grenada
14	Madagascar	37	Libya
15	Arube	38	Mozambique
16	Monaco	39	Seychelles
17	French Guiana	40	Suriname
18	Barbados	41	Benin
19	Uganda	42	Eswatini
20	Macao	43	Guyinea Bissav
21	French Polymes	44	Laos
22	Zambie	45	Saint Kitts and Nevis
23	Djibouti	46	Antiguo and Barbuda
47	Chad		
48	Central Africe Republic		
49	Liberia		
50	Saint Bathelay		
51	Vatican City		
52	Fiji		
53	Montserrat		
54	Nepal		
55	Turks and caicosIslands		
56	Aland Island		
57	Bhutan		
58	Belize		
59	British Virgin Islands		
60	Somalia		
61	Anguilla		
62	Burundi		
63	Sierraleone		
64	Papula New Guinea		
65	Saint Vincent and The Grenadines		
66	Timor-Leste		

Source: [5].

Table 3
Currently infected patients, closed cases, total death and recovered COVID-19 cases WHO world continent from 31 December 2019 to 3 April 2020

Roll No	Types of cases	Categories	No	%
1	Active cases	Currently infected patients	810,667	100
		In mild condition	771,276	95
		Serious or critical condition	39,391	5
2	Closed cases	Cases which had an outcome	288,095	100
		Recovered/discharged	228,923	79
		Deaths	59,172	21
3	New cases		756	
4	New deaths		31	
5	Total cases in 1 Million population		141.0	
6	Deaths in 1 Million population		7.6	
7	Total cases		1,098,762	
8	Total deaths		59,172	
9	Recovered		228,923	


Source: [8].

and control method of slow COVID-19 transmission. Moreover, the confirmed cases and deaths are inclined from day to day. Hence, the result indicated that the COVID-19 could be exacerbated the impact of world climate change and overburdened health care system and such increase hospitalization with in low number of skilled health professionals. Meanwhile, the result showed that about 228, 923 confirmed COVID-19 patients had recovered from their mild and/or severe condition with strongly supported and significant health care management systems in world countries.

The active cases related to currently infected patient and all confirmed cases in a world continents ability to survive and recovered with effective preventive and control methods and supportive treatments including isolation as best way to slow transmission is assessed, it is clear that COVID-19 is pandemic disease still pose the greatest challenges to the socioeconomic and health of population in the world continents (Table 4). The world continents have confirmed a total of 1,202,320 confirmed COVID-19 cases: (51.2%) in Europe, (27.7%) in North America, (17.9%) in Asia, (1.96%) in South America and at less number of confirmed COVID-19 cases in Africa and Australia which was accounted 0.8% and 0.5%, respectively. However, this review showed that there was significantly increased the confirmed COVID-19 cases by 109,555 in Asia, 8,658 in Africa, 332,866 in North America, 20,269 in South America, 568,894 in Europe, 5,051 in Australia and 1,045,403 in the whole world continents except Antarctica (WHO, 2020).

Table 5 shows that the world continents have reported number of discharged patients and recovered cases from Hospital and other COVID-19 emergency management centers between 1 January 2020 to 20 March 2020. The total of recovered and discharged at home from various health setting, hospitals and emergency management centers were 245,977 patients out of confirmed a total of 1,202,320 confirmed COVID-19 cases in the world

Table 4
Confirmed reported cases between 1 January 2020 to 20 March 2020 and 1 January 2020 to 3 April 2020 by continent

World continents	From 1 January 2020 to 20 March 2020			1 January 2020 to 3 April 2020	
	No	%		No	%
Asia	105,131	67.4		214,686	17.9
Africa	308	0.2		9,066	0.8
North America	398	0.26		333,264	27.7
South America	3,232	2.06		23,501	1.96
Antartica	0	0		0	0
Europe	46,551	29.9		615,445	51.2
Australia	297	0.19		5,358	0.5
Total	155,917	100		1,201,320	100

Source: [8].

Table 5
Recovery and discharged from hospital and other COVID-19 emergency management centers reports between 1 January 2020 to 20 March 2020 and 1 January 2020 to 3 April 2020 by continent

World continents	1 January 2020 to 20 March 2020			1 January 2020 to 3 April 2020	
	No	%		No	%
Asia	72,696	96.3		109,722	44.6
Africa	42	0.08		863	0.4
North America	1	0.02		18,232	7.4
South America	64	0.07		2,214	0.9
Antartica	0	0		0	0
Europe	2,628	3.49		114,310	46.5
Australia	27	0.04		636	0.26
Total	75,458	100		245,977	100

Source: [8].

Notion Except Antartica. From those total of recovered and/or discharged patients, the majority (46.5%) in Europe, and followed by (44.6%) in Asia (7.4%), in North America (0.9%), in South America (0.4%), in Africa and last but not the least in Australia (0.26%).

The findings of different studies showed that there was significantly increased the confirmed COVID-19 cases by 109,555 in Asia, 8,658 in Africa, 332,866 in North America, 20,269 in South America, 568,894 in Europe, 5,051 in Australia and 1,045,403 in the whole world continents except Antarctica from 20 March 2020 to 3 April 2020. There was increased the total recovery and discharged COVID-19 patients from Hospital and other COVID-19 emergency management centers by 37,026 in Asia, 821 in Africa, 18,231 in North America, 2,150 in South America, 111,682 in Europe, 609 in Australia and 170,519 in the whole world except Antarctica [5].

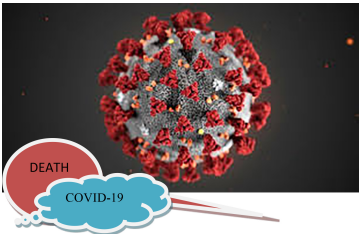
Table 6 indicated a total of 64,942 death was recorder due to COVID-19 from December 2019 to April 5, 2020. From those, the majority 46,194 (71.1%) were in Europe, and followed by 8,972 (13.8%) were in North America, 8,335 (12.8%) in Asia, 822 (1.27%) in South America, 385 (0.6%) in Africa and only 34 (0.05%) in Australia; however, still there was no any registered death and case in Antarctica. Regarding to speed re-

lated with deaths could not be resisted with a world health professionals and governments, because the finding showed that there was increased the total death due to COVID-19 at home and health facilities by 4,393 in Asia, 348 in Africa, 8,968 in North America, 765 in South America, 43,991 in Europe, 29 in Australia and 58,624 in the whole world except Antarctica from 20 March 2020 to 3 April 2020.

The closed cases which had an outcome and recovery and discharged and deaths in a world continents ability to implement quarantine as prevention and control way and supportive treatment including isolation as best way to slow transmission is examined, it is clear that death due to COVID-19 pandemic diseases are increasing mental health related outcome. Most of the world communities are under high grade stressed due to the increment of territories (Table 7). The results also shown that the COVID-19 outbreak disease was occurred at Wuhan city of China since 31 December 2019. However, the problem are disseminated to world countries and there was an indicator which addressed a significantly increase the territories up to 3 April 2020.

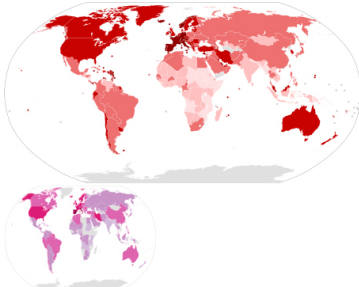
Most of increments of territories were seen in Europe and Africa which have the same value, 54 (25.8%), and followed by Asia 47 (22.5%), North America 40 (19.1%) and South America 14 (6.7%). However, there

Table 6
Death due to COVID-19 reports between 1 January 2020 to 20 March 2020 and 1 January 2020 to 3 April 2020

World continents	1 January 2020 to 20 March 2020			1 January 2020 to 3 April 2020	
	No	%		No	%
Asia	3,942	62.4		8,335	12.8
Africa	7	0.11		385	0.6
North America	4	0.81		8,972	13.8
South America	57	0.9		822	1.27
Antarctica	0	0		0	0
Europe	2303	36.5		46,194	71.1
Australia	5	0.08		34	0.05
Total	6,318	100		64,942	100

Source: [8].

Table 7
Territories reports between 1 January 2020 to 20 March 2020 and 1 January 2020 to 3 April 2020

World Continents	1 January 2020 to 20 March 2020			1 January 2020 to 3 April 2020	
	No	%		No	%
Asia	41	29.9		47	22.5
Africa	26	18.9		54	25.8
North America	12	8.8		40	19.1
South America	14	10.2		14	6.7
Antarctica	0	0		0	0
Europe	44	32.1		54	25.8
Australia	0	0		0	0
Total	137	100		209	100

Source: [8].

Table 8
Location, origin, and first case of COVID-19, SARS-CoV-2 observed in the world from 1 January 2020 to 26 February 2020

S.No	Location	Origin [First outbreak: Index Cases]	Date, month and year of first case
1	Asia	Wuhan, Hubei, China: NA	31 December 2020
2	Africa	Wuhan, Hubei, China: Cairo, Egypt	14 February 2020
3	North America	Wuhan, Hubei, China: Snohomish, Washington, United States	21 January 2020
4	South America	Wuhan, China: Saa Paulo, Brazil	26 February 2020
5	Antarctica	NA: NA	NA: NA
6	Europe	Wuhanm Hubei, China: Bordeaux, France	21 January 2020
7	Australia	Unknown: Melbourne, Victoria	25 January 2020

Source: [8].

was no any change and registered territories increment and decrement in the world. Regarding to the difference from month to month reports about the territories, there was increased the total territories vulnerable with Novel COVID-19 by 6 in Asia, 28 in Africa, 28 in North America, 10 in Europe, and 72 in the whole world except Antarctica, South America and Australia from 20 March 2020 to 3 April 2020.

Table 8 shows that most of world continents have reported COVID-19; SARS-CoV-2 since 31 December 2019 starting from Wuhan, Hubei, China without any index cases. However, Antarctica is the only world continent not yet reported COVID-19-SARS-CoV-2 [9,10]. In addition, the finding shown that most of continent have affected with this virus on January and February;

however, the spread of COVID-19 case are exacerbated with various factors and to be reached at high risk level among the world socioeconomic and health impacts.

4. Discussions

The governments, health care providers and any sectors professionals' concerns about the current pandemic COVID-19 transmission and its adverse consequences of health system change on addressing the adequate medical care for those who are confirmed COVID-19 and suspected cases of communities related to COVID-19 including quality testing process at diagnostic laboratory centers are differ from country to country. This

study is describes the active cases including currently infected or confirmed patients, mild condition, sever or critical condition; and closed cases which included that case that had an outcome, recover and /or discharged and death, territories, location, origin and first or index cases and overall management system for COVID-19 in world continents [1,11].

Currently, China has successfully implemented the efficient and effective the five major WHO prevention and control methods to slow COVID-19 transmission from person to person as since the first attacked on 31 December 2019, with more than 81,554 confirmed cases, 59,38 cases in 1 million people, 76,238 recovered and 3,312 deaths due to this disease. The epidemic and pandemic prone disease outbreak threaten community and public health security in a world continents except Antartica up to 3 April 2020. The COVID-19 is responsible increase number of cases and deaths, mild and severe level of morbidity as well as increasing number of deaths in the world. The COVID-19 has devastating impact of social, physiological and economic status of all countries in world continents. Moreover, COVID-19; SARS-CoV-2 as a pandemic disease outbreak can occur across the world and affect every nation and community health status but, also increasing death rate without expected time frame. Currently, most of world continents, each region and countries have reported the COVID-19 as pandemic. Among those, most of the countries designed integrated management and WHO major prevention and control methods were setup to address the burden of COVID-19 and improve the availability and use of WHO rule and regulation so as to slow COVID-19, and detecting and responding to community health effects [2,12].

The review provided that strong evidence that making WHO prevention and control methods like quarantine, sureveillance, isolation and managing of COVID-19 were implemented to slow COVID-19 transmission in the world. However, in Antartica, totally restricts human movements which helps to prevent the spread of COVID-19, and its consequence (Australian Antartic Division, 2019). Similarly, British Antarctic Survey [7] suggested that Antartica is one of the world continents which has been implementing the major prevention and control methods. In addition immediate quarantine was implemented after the first COVID-19 case has been occurred in Wuhan, Hebie city of China.

The review also showed that both active and closed COVID-19; SARS-CoV-2 cases significantly increasing time to time due to lack of communities' and health care providers' awareness, negative attitudes, ignorance

and shortage of waiting centers and areas to isolate confirmed as well as suspected cases related with travelers, visters and new comers from various countries [13].

Every country in the world need an emergency national set of standard measures, appropriate use of an evidence based prevention and control methods, prepare common COVID-19 management guideline based on severity of the cases, and collaboration as joint activities among all partners. As aresult, different supports have provided through governmental and non-governmental organizations including higher level of fund raisers and grantors. These could help to slow transmission of COVID-19 and decreases deaths [14]. However, the review showed that there was increasing COVID-19 confirmed cases and deaths in every seconds. An emergency national and international set of stnadrd measures would also allow all health settings to have some confidence to held accountable management for those confirmed, suspected and emergent COVID-19 patienrs appropriately and carefully. Moreover, it helps to minimize the cross cut of this pandemic disease from country to countries and from individual to anothers [15,16].

5. Conclusions

The review concluded that COVID-19; SARS-CoV-2 is the major global public health burden due to its dramatically increase of morbidity and mortality rate from time to time. However, China has shown promising reduction of COVID-19 transmission by forming strong collaboration among all sectors and the design of effective prevention and control strategies which include staying at home, social/physical distancing, quarantine, testing of suspected patients, isolation and managing of the confirmed cases. Therefore, other countries of the world should have also taken an intersectorial, intersectoral and launched WHO five major COVID-19 effective and efficient prevention and control programmes to address the immediate and underlying causes of this disease especially at Community level.

Abbreviations

CDC	Center of Disease Control
COVID-19	Novel Coronavirus Disease 2019
SARS-CoV	Severe Acute Respiratory Syndrome Coronavirus
MERS-CoV	Middle East Respiratory Syndrome Coronavirus
WHO	World Health Organization

Author contributions

All authors contributed equally during the title selection, design, statistical analysis, and interpretation of results. They are also involved in the review by giving suggestions, comments, support, encouragement, and contribution throughout the review. All authors read and have approved this manuscript to be published.

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Annex: Research team members perception and suggestion

