Coronavirus disease 2019 (COVID-19) Situation Report – 94



Data as received by WHO from national authorities by 10:00 CEST, 23 April 2020

HIGHLIGHTS

- The Global Outbreak Alert and Response Network (GOARN) has launched a GOARN COVID-19 Knowledge hub. The hub is designed as a central repository of quality public health information, guidance, tools and webinars which can be accessed freely at any point.
- WHO Director-General Dr. Tedros, in his regular media briefing yesterday, cautioned that "we have a long way to go. This virus will be with us for a long time". He added that "the world cannot go back to the way things were. There must be a "new normal" a world that is healthier, safer and better prepared". His speech can be found here.
- WHO has published guidance 'Addressing Human Rights as Key to the COVID-19
 Response'. The guidance document highlights the importance of integrating a
 human rights-based approach into the COVID-19 response and highlights key
 considerations in relation to addressing stigma and discrimination, prevention
 of violence against women, support for vulnerable populations, quarantine and
 restrictive measures, and shortages of supplies and equipment.
- All available evidence for COVID-19 suggests that SARS-CoV-2 has a zoonotic source. Many researchers have been able to look at the genomic features of SARS-CoV-2 and have found that evidence does not support that SARS-CoV-2 is a laboratory construct. A constructed virus would show a mix of known elements within genomic sequences this is not the case. For more details, please see 'subject in focus'.

SITUATION IN NUMBERS total (new cases in last 24 hours)

Globally

2 544 792 confirmed (73 657) 175 694 deaths (6689)

European Region

1 251 458 confirmed (31 972) 113 336 deaths (3384)

Region of the Americas

957 402 confirmed (32 111) 47 812 deaths (3038)

Eastern Mediterranean Region

144 450 confirmed (5101) 6469 deaths (143)

Western Pacific Region

137 902 confirmed (1632) 5818 deaths (25)

South-East Asia Region

36 039 confirmed (2127) 1498 deaths (71)

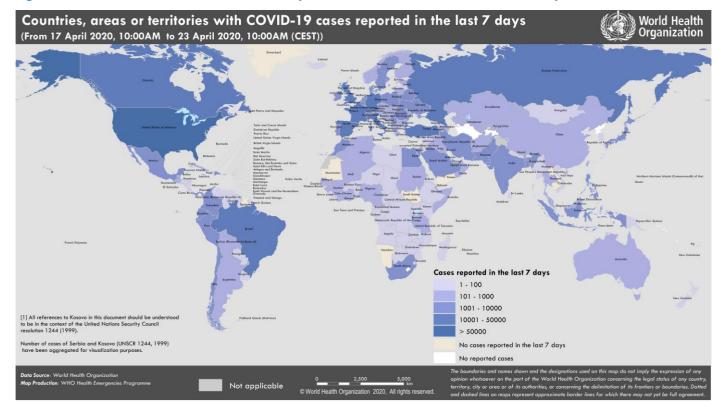
African Region

16 829 confirmed (714) 748 deaths (28)

WHO RISK ASSESSMENT

Global Level Very High

Figure 1. Countries, territories or areas with reported confirmed cases of COVID-19, 23 April 2020



SUBJECT IN FOCUS: Origin of the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), the virus causing COVID-19

The first human cases of COVID-19, the disease caused by the novel coronavirus causing COVID-19, subsequently named SARS-CoV-2 were first reported by officials in Wuhan City, China, in December 2019. Retrospective investigations by Chinese authorities have identified human cases with onset of symptoms in early December 2019. While some of the earliest known cases had a link to a wholesale food market in Wuhan, some did not. Many of the initial patients were either stall owners, market employees, or regular visitors to this market. Environmental samples taken from this market in December 2019 tested positive for SARS-CoV-2, further suggesting that the market in Wuhan City was the source of this outbreak or played a role in the initial amplification of the outbreak. The market was closed on 1 January 2020.

SARS-CoV-2 was identified in early January and its genetic sequence shared publicly on 11-12 January. The full genetic sequence of SARS-CoV-2 from the early human cases and the sequences of many other virus isolated from human cases from China and all over the world since then show that SARS-CoV-2 has an ecological origin in bat populations. All available evidence to date suggests that the virus has a natural animal origin and is not a manipulated or constructed virus. Many researchers have been able to look at the genomic features of SARS-CoV-2 and have found that evidence does not support that SARS-CoV-2 is a laboratory construct. If it were a constructed virus, its genomic sequence would show a mix of known elements. This is not the case.

Another coronavirus, SARS-CoV-1, the cause of the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003, was also closely related to other coronaviruses isolated from bats. These close genetic relations of SARS-CoV-1, SARS-CoV-2 and other coronaviruses, suggest that they all have their ecological origin in bat populations. Many of these coronaviruses can also infect several animal species. For example, SARS-CoV-1 infected civet cats and then humans, while the virus causing the Middle East Respiratory Syndrome (MERS-CoV) is found in dromedary camels, and has continued to infect humans since 2012.

All available evidence for COVID-19 suggests that SARS-CoV-2 has a zoonotic source. Since there is usually limited close contact between humans and bats, it is more likely that transmission of the virus to humans happened through another animal species, one that is more likely to be handled by humans. This intermediate animal host or zoonotic source could be a domestic animal, a wild animal, or a domesticated wild animal and, as of yet, has not been identified.

All the published genetic sequences of SARS-CoV-2 isolated from human cases are very similar. This suggests that the start of the outbreak resulted from a single point introduction in the human population around the time that the virus was first reported in humans in Wuhan, China in December 2019.

A number of investigations to better understand the source of the outbreak in China are currently underway or planned, including investigations of human cases with symptom onset in and around Wuhan in late 2019, environmental sampling from markets and farms in areas where the first human cases were identified, and detailed records on the source and type of wildlife species and farmed animals sold in these markets.

Results from these studies are essential to preventing further zoonotic introductions of SARS-CoV-2 into the human population. WHO continues to collaborate with animal health and human health experts, Member States, and other partners to identify gaps and research priorities for the control of COVID-19, including the eventual identification of the source of the virus in China.

SURVEILLANCE

Table 1. Countries, territories or areas with reported laboratory-confirmed COVID-19 cases and deaths. Data as of 23 April 2020*

Reporting Country/ Territory/Area [†]	Total confirmed [‡] cases	Total confirmed new cases	Total deaths	Total new deaths	Transmission classification [§]	Days since last reported case
Western Pacific Region				ı		
China	84302	15	4642	0	Clusters of cases	0
Japan	11919	423	287	10	Clusters of cases	0
Republic of Korea	10702	8	240	2	Clusters of cases	0
Singapore	10141	1016	12	1	Clusters of cases	0
Philippines	6710	111	446	9	Clusters of cases	0
Australia	6654	7	74	0	Clusters of cases	0
Malaysia	5532	50	93	1	Clusters of cases	0
New Zealand	1112	0	16	2	Clusters of cases	1
Viet Nam	268	0	0	0	Clusters of cases	6
Brunei Darussalam	138	0	1	0	Sporadic cases	3
Cambodia	122	0	0	0	Sporadic cases	11
Mongolia	35	1	0	0	Sporadic cases	0
Lao People's						
Democratic Republic	19	0	0	0	Sporadic cases	10
Fiji	18	0	0	0	Sporadic cases	2
Papua New Guinea	8	1	0	0	Sporadic cases	0
Territories**						
Guam	133	0	5	0	Clusters of cases	11
French Polynesia	57	0	0	0	Sporadic cases	1
New Caledonia	18	0	0	0	Sporadic cases	20
Northern Mariana Islands (Commonwealth of the)	14	0	2	0	Pending	5
European Region						
Spain	208389	4211	21717	435	Pending	0
Italy	187327	3370	25085	437	Community transmission	0
					Community	
Germany	148046	2352	5094	215	transmission	0
The United Kingdom	133499	4451	18100	763	Community transmission	0
The emited kingdom		52		. 33	Community	
France	117961	1810	21307	544	transmission	0
					Community	
Turkey	98674	3083	2376	117	transmission	0
Russian Federation	62773	4774	555	42	Clusters of cases	0
Belgium	41889	933	6262	264	Community transmission	0

					Community	
Netherlands	34842	708	4054	138	transmission	0
					Community	
Switzerland	28186	205	1216	30	transmission	0
Portugal	21982	603	785	23	Pending	0
Ireland	16671	631	769	39	Pending	0
Sweden	16004	682	1937	172	Pending	0
Austria	14924	91	494	31	Pending	0
Israel	14498	556	189	5	Pending	0
Poland	10169	313	426	25	Pending	0
					Community	
Romania	9710	468	508	25	transmission	0
Denmark	7912	217	384	14	Pending	0
					Community	
Belarus	7281	558	60	5	transmission	0
Norway	7250	84	169	6	Pending	0
					Community	
Ukraine	7170	578	187	13	transmission	0
					Community	_
Czechia	7136	95	210	9	transmission	0
Serbia	7114	224	134	4	Pending	0
Finland	4129	115	149	8	Pending	0
Luxembourg	3654	36	80	2	Pending	0
Republic of Moldova	2778	137	76	3	Pending	0
Greece	2408	7	121	0	Pending	0
Hungary	2284	116	225	0	Clusters of cases	0
Kazakhstan	2025	30	19	0	Pending	0
Croatia	1950	42	48	0	Pending	0
					Community	
Iceland	1785	7	10	0	transmission	0
Uzbekistan	1716	59	7	1	Clusters of cases	0
Estonia	1559	7	44	1	Pending	0
Azerbaijan	1518	38	20	0	Clusters of cases	0
Armenia	1473	96	24	0	Clusters of cases	0
Lithuania	1398	28	38	0	Pending	0
Bosnia and					Community	
Herzegovina	1367	27	52	2	transmission	0
Clavrania	1252	12	70		Community	0
Slovenia	1353	13	79	2	transmission	0
North Macedonia	1259	28	56	1	Clusters of cases	0
Slovakia	1244	45	14	0	Clusters of cases	0
Bulgaria	1024	49	49	4	Pending	0
Cyprus	790	6	17	0	Clusters of cases	0
Latvia	761	13	11	2	Pending	0
A	724	4	27		Community	•
Andorra	724	1	37	0	transmission	0
Albania	634	0	27	1	Clusters of cases	1
Kyrgyzstan	631	19	8	1	Pending	0
San Marina	488	12	40	_	Community transmission	0
San Marino	+			0		0
Malta	444	1	3	0	Pending	0

					Community	
Georgia	420	9	5	0	transmission	0
Montenegro	314	1	5	0	Clusters of cases	0
Liechtenstein	82	0	1	0	Pending	4
Monaco	68	0	1	0	Sporadic cases	9
Holy See	9	0	0	0	Sporadic cases	2
Territories**					'	
					Community	
Kosovo ^[1]	630	26	18	0	transmission	0
Isle of Man	307	0	10	0	Pending	1
Jersey	255	5	14	0	Pending	0
		_			Community	
Guernsey	241	2	10	0	transmission	0
Faroe Islands	185	0	0	0	Pending	3
Gibraltar	133	0	0	0	Clusters of cases	5
Greenland	11	0	0	0	Pending	17
South-East Asia Region						T -
India	21393	1409	681	41	Clusters of cases	0
Indonesia	7418	283	635	19	Community transmission	0
Bangladesh	3772	390	120	10	Pending	0
Thailand	2839	13	50	10	Pending	0
Sri Lanka	330	20	7	0	Clusters of cases	0
	127	6	5	0	Clusters of cases	0
Myanmar Maldives	+					
	85	2	0	0	Clusters of cases	0
Nepal	45	3	0	0	Sporadic cases	0
Timor-Leste	23	0	0	0	Clusters of cases	2
Bhutan Eastern Mediterranean	7 Pagion	1	0	0	Sporadic cases	0
Iran (Islamic Republic	Region				Community	T
of)	85996	1194	5391	94	transmission	0
Saudi Arabia	12772	1141	114	5	Clusters of cases	0
Pakistan	10513	764	224	15	Clusters of cases	0
United Arab Emirates	8238	483	52	6	Pending	0
Qatar	7141	608	10	1	Pending	0
Egypt	3659	169	276	12	Clusters of cases	0
Morocco	3446	237	149	4	Clusters of cases	0
Kuwait	2248	168	13	2	Clusters of cases	0
Bahrain	2027	54	7	0	Clusters of cases	0
Oman	1716	102	8	0	Clusters of cases	0
Iraq	1631	29	83	0	Clusters of cases	0
Afghanistan	1176	84	40	4	Clusters of cases	0
Djibouti	974	29	2	0	Clusters of cases	0
	3, 1				Community	Ĭ
Tunisia	909	8	38	0	transmission	0
Lebanon	682	0	22	0	Clusters of cases	1
Jordan	435	7	7	0	Clusters of cases	0
Somalia	286	0	14	0	Sporadic cases	1
Sudan	162	22	13	0	Sporadic cases	0
Libya	60	1	1	0	Clusters of cases	0

					Community	
Syrian Arab Republic	42	0	3	0	transmission	1
Yemen	1	0	0	0	Pending	12
Territories**	T		T	T		
occupied Palestinian	225					
territory	336	1	2	0	Clusters of cases	0
Region of the Americas					C	Ī
United States of America	800926	24019	40073	2471	Community transmission	0
America	800926	24019	40073	24/1	Community	U
Brazil	43079	2498	2741	166	transmission	0
DIGZII	43073	2430	2/41	100	Community	0
Canada	38923	1549	1871	143	transmission	0
	00020				Community	
Peru	17837	1512	484	39	transmission	0
					Community	
Chile	11296	464	160	13	transmission	0
					Community	
Ecuador	10850	452	537	17	transmission	0
					Community	
Mexico	9501	729	857	145	transmission	0
					Community	
Dominican Republic	5300	256	260	15	transmission	0
					Community	
Panama	4821	163	141	5	transmission	0
		4=0	100	_	Community	
Colombia	4149	172	196	7	transmission	0
Argontino	3197	124	152	7	Community transmission	0
Argentina	†					0
Cuba	1189	52	40	2	Clusters of cases	0
Costa Rica	669	7	6	0	Clusters of cases	0
Bolivia (Plurinational	609	11	37	3	Clusters of cases	0
State of)	†	8		2	Clusters of cases	
Uruguay	543		12			0
Honduras	510	16	46	0	Clusters of cases	0
Guatemala	316	22	8	0	Clusters of cases	0
Venezuela (Bolivarian	200	2	10	0	Clusters of sees	0
Republic of)	288	3	10	0	Clusters of cases	0
El Salvador	237	12	7	0	Clusters of cases	0
Jamaica	233	10	6	0	Clusters of cases	0
Daragua	242	_		1	Community	
Paraguay	213	5	9	1	transmission	0
Trinidad and Tobago	115	1	8	0	Sporadic cases	0
Barbados	75	0	5	0	Clusters of cases	6
Guyana	67	1	7	0	Clusters of cases	0
Bahamas	65	1	9	0	Clusters of cases	0
Haiti	58	1	4	1	Clusters of cases	0
Antigua and Barbuda	24	1	3	0	Clusters of cases	0
Belize	18	0	2	0	Sporadic cases	8
Dominica	16	0	0	0	Clusters of cases	12
Saint Kitts and Nevis	15	0	0	0	Sporadic cases	2
Saint Lucia	15	0	0	0	Sporadic cases	11
Grenada	14	0	0	0	Clusters of cases	1
Grenada	1 14	U			Ciusters of Cases	

Saint Vincent and the						
Grenadines	13	1	0	0	Sporadic cases	0
Nicaragua	10	0	2	0	Pending	1
Suriname	10	0	1	0	Sporadic cases	19
Territories**					1 250.44.0 04000	1 23
Puerto Rico	1298	0	64	0	Clusters of cases	1
Martinique	164	1	14	0	Clusters of cases	0
Guadeloupe	148	0	12	0	Clusters of cases	3
Aruba	100	3	2	0	Clusters of cases	0
Bermuda	98	12	5	0	Clusters of cases	0
French Guiana	97	0	1	0	Clusters of cases	2
Sint Maarten	71	3	11	1	Clusters of cases	0
Cayman Islands	66	0	1	0	Clusters of cases	1
United States Virgin			_		Clasters or cases	
Islands	54	0	3	0	Clusters of cases	1
Saint Martin	38	1	2	0	Sporadic cases	0
Curaçao	14	0	1	0	Sporadic cases	14
Falkland Islands						
(Malvinas)	12	1	0	0	Clusters of cases	0
Montserrat	11	0	0	0	Sporadic cases	9
Turks and Caicos						
Islands	11	0	1	0	Sporadic cases	6
Saint Barthelemy	6	0	0	0	Sporadic cases	23
Bonaire, Sint Eustatius	_	0	0		Cooredia	F
and Saba	5	0	0	0	Sporadic cases	5
British Virgin Islands	4	0	1	0	Sporadic cases	3
Anguilla Saint Pierre and	3	0	0	0	Sporadic cases	19
Miquelon	1	0	0	0	Sporadic cases	15
African Region					Sporadic cases	15
7ea region					Community	
South Africa	3635	170	65	7	transmission	0
					Community	
Algeria	2910	99	402	10	transmission	0
Cameroon	1163	0	43	0	Clusters of cases	2
Ghana	1154	112	9	0	Clusters of cases	0
Côte d'Ivoire	952	36	14	1	Clusters of cases	0
					Community	
Guinea	761	73	6	0	transmission	0
Niger	662	5	22	2	Clusters of cases	0
Burkina Faso	600	19	38	0	Community transmission	0
טטו גווומ דמטט	000	13	30	U	Community	U
Nigeria	541	0	19	0	transmission	3
Senegal	442	30	6	1	Clusters of cases	0
Democratic Republic						-
of the Congo	359	0	25	0	Clusters of cases	1
					Community	
Mauritius	329	1	9	0	transmission	0
Kenya	303	7	14	0	Clusters of cases	0
Mali	293	35	17	3	Clusters of cases	0

United Republic of						
Tanzania	285	30	10	0	Clusters of cases	0
Congo	186	21	6	0	Clusters of cases	0
Gabon	166	10	1	0	Clusters of cases	0
Rwanda	153	3	0	0	Clusters of cases	0
Madagascar	121	0	0	0	Clusters of cases	3
Ethiopia	116	2	3	0	Clusters of cases	0
Liberia	101	0	8	0	Clusters of cases	1
Togo	88	2	6	0	Clusters of cases	0
Equatorial Guinea	84	5	1	1	Clusters of cases	0
Zambia	74	4	3	0	Sporadic cases	0
Cabo Verde	67	0	1	0	Sporadic cases	1
Sierra Leone	61	11	1	1	Clusters of cases	0
Uganda	61	5	0	0	Sporadic cases	0
Benin	54	0	1	0	Sporadic cases	2
Guinea-Bissau	50	0	0	0	Sporadic cases	5
Mozambique	41	2	0	0	Sporadic cases	0
Eritrea	39	0	0	0	Sporadic cases	4
Chad	34	0	0	0	Sporadic cases	1
Eswatini	31	7	1	0	Sporadic cases	0
Zimbabwe	28	0	4	1	Sporadic cases	1
Angola	24	0	2	0	Sporadic cases	2
Malawi	23	5	3	1	Sporadic cases	0
Botswana	22	2	1	0	Sporadic cases	0
Namibia	16	0	0	0	Sporadic cases	17
Central African						
Republic	14	0	0	0	Sporadic cases	1
Burundi	11	0	1	0	Sporadic cases	1
Seychelles	11	0	0	0	Sporadic cases	16
Gambia	10	0	1	0	Sporadic cases	2
Mauritania	7	0	1	0	Sporadic cases	12
São Tomé and	_			_		
Príncipe	7	3	0	0	Sporadic cases	0
South Sudan	4	0	0	0	Sporadic cases	11
Territories**	440	•			Cl	
Réunion	410	0	0	0	Clusters of cases	1
Mayotte	326	15	4	0	Clusters of cases	0
Subtotal for all Regions	2544080	73657	175681	6689		
International						
conveyance (Diamond	712	0	13	0	Not Applicable ^{††}	38
Princess)						
Grand total	2544792	73657	175694	6689		

^{*}Numbers include both domestic and repatriated cases

[†]The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. [‡]Case classifications are based on WHO case definitions for COVID-19.

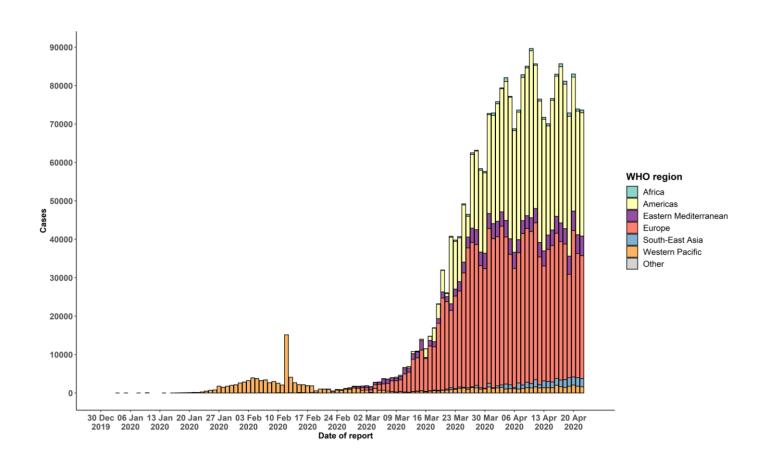
[§]Transmission classification is based on a process of country/territory/area self-reporting. Classifications are reviewed on a weekly basis and may be upgraded or downgraded as new information becomes available. Not all locations within a given country/territory/area are equally affected; countries/territories/areas experiencing multiple types of transmission are classified in the highest category reported. Within a given transmission category, different countries/territories/areas may have differing degrees of transmission as indicated by the differing numbers of cases, recency of cases, and other factors.

Terms:

- No cases: Countries/territories/areas with no confirmed cases (not shown in table)
- Sporadic cases: Countries/territories/areas with one or more cases, imported or locally detected
- Clusters of cases: Countries/territories/areas experiencing cases, clustered in time, geographic location and/or by common exposures
- **Community transmission**: Countries/area/territories experiencing larger outbreaks of local transmission defined through an assessment of factors including, but not limited to:
 - Large numbers of cases not linkable to transmission chains
 - Large numbers of cases from sentinel lab surveillance
 - Multiple unrelated clusters in several areas of the country/territory/area
- ** "Territories" include territories, areas, overseas dependencies and other jurisdictions of similar status
- [1] All references to Kosovo should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).
- ++ As the international conveyance (Diamond Princess) is no longer occupied, transmission classification cannot be applied.

Due to differences in reporting methods, retrospective data consolidation, and reporting delays, the number of new cases may not always reflect the exact difference between yesterday's and today's totals. WHO COVID-19 Situation Reports present official counts of confirmed COVID-19 cases, thus differences between WHO reports and other sources of COVID-19 data using different inclusion criteria and different data cutoff times are to be expected.

Figure 4. Epidemic curve of confirmed COVID-19, by date of report and WHO region through 23 April 2020



STRATEGIC OBJECTIVES

WHO's strategic objectives for this response are to:

- Interrupt human-to-human transmission including reducing secondary infections among close contacts and health care workers, preventing transmission amplification events, and preventing further international spread*;
- Identify, isolate and care for patients early, including providing optimized care for infected patients;
- Identify and reduce transmission from the animal source;
- Address crucial unknowns regarding clinical severity, extent of transmission and infection, treatment options, and accelerate the development of diagnostics, therapeutics and vaccines;
- Communicate critical risk and event information to all communities and counter misinformation;
- Minimize social and economic impact through multisectoral partnerships.

*This can be achieved through a combination of public health measures, such as rapid identification, diagnosis and management of the cases, identification and follow up of the contacts, infection prevention and control in health care settings, implementation of health measures for travelers, awareness-raising in the population and risk communication.

PREPAREDNESS AND RESPONSE

- To view all technical guidance documents regarding COVID-19, please go to this webpage.
- WHO has developed interim guidance for laboratory diagnosis, advice on the use of masks during home care and in health care settings in the context of COVID-19 outbreak, clinical management, infection prevention and control in health care settings, home care for patients with suspected novel coronavirus, risk communication and community engagement and Global Surveillance for human infection with COVID-19.
- WHO is working closely with International Air Transport Association (IATA) and have jointly developed a
 guidance document to provide advice to cabin crew and airport workers, based on country queries. The
 guidance can be found on the IATA webpage.
- WHO has been in regular and direct contact with Member States where cases have been reported. WHO is also informing other countries about the situation and providing support as requested.
- WHO is working with its networks of researchers and other experts to coordinate global work on surveillance, epidemiology, mathematical modelling, diagnostics and virology, clinical care and treatment, infection prevention and control, and risk communication. WHO has issued interim guidance for countries, which are updated regularly.
- WHO has prepared a <u>disease commodity package</u> that includes an essential list of biomedical equipment, medicines and supplies necessary to care for patients with COVID-19.
- WHO has provided recommendations to reduce risk of transmission from animals to humans.
- WHO has published an <u>updated recommendations for international traffic in relation to COVID-19 outbreak</u>.
- WHO has activated the R&D blueprint to accelerate diagnostics, vaccines, and therapeutics.
- OpenWHO is an interactive, web-based, knowledge-transfer platform offering online courses to improve the
 response to health emergencies. <u>COVID-19 courses can be found here</u> and courses in <u>additional national</u>
 <u>languages here</u>. Specifically, WHO has developed online courses on the following topics:
 - Introduction to Go.Data Field data collection, chains of transmission and contact follow-up. The Go.Data tool is available globally to WHO staff, member states and partners to support outbreak investigation, focusing on field data collection, contact tracing and visualisation of chains of transmission.

- A general introduction to emerging respiratory viruses, including novel coronaviruses (available in Arabic, Chinese, English, French, Russian, Spanish, Hindi, Indian Sign Language, Persian, Portuguese, Serbian and Turkish);
- Clinical care for Severe Acute Respiratory Infections (available in English, French, Russian, Indonesian and Vietnamese);
- Health and safety briefing for respiratory diseases ePROTECT (available in Chinese, English, French, Russian, Spanish, Indonesian and Portuguese);
- Infection Prevention and Control for Novel Coronavirus (COVID-19) (available in Chinese, English, French, Russian, Spanish, Indonesian, Italian, Japanese, Portuguese and Serbian); and
- o COVID-19 Operational Planning Guidelines and COVID-19 Partners Platform to support country preparedness and response (available in English and coming soon in additional languages).
- WHO is providing guidance on early investigations, which are critical in an outbreak of a new virus. The data collected from the protocols can be used to refine recommendations for surveillance and case definitions, to characterize the key epidemiological transmission features of COVID-19, help understand spread, severity, spectrum of disease, impact on the community and to inform operational models for implementation of countermeasures such as case isolation, contact tracing and isolation. Several protocols are available here. One such protocol is for the investigation of early COVID-19 cases and contacts (the "First Few X (FFX) Cases and contact investigation protocol for 2019-novel coronavirus (2019-nCoV) infection"). The protocol is designed to gain an early understanding of the key clinical, epidemiological and virological characteristics of the first cases of COVID-19 infection detected in any individual country, to inform the development and updating of public health guidance to manage cases and reduce the potential spread and impact of infection.

RECOMMENDATIONS AND ADVICE FOR THE PUBLIC

If you are not in an area where COVID-19 is spreading or have not travelled from an area where COVID-19 is spreading or have not been in contact with an infected patient, your risk of infection is low. It is understandable that you may feel anxious about the outbreak. Get the facts from reliable sources to help you accurately determine your risks so that you can take reasonable precautions (see Frequently Asked Questions). Seek guidance from WHO, your healthcare provider, your national public health authority or your employer for accurate information on COVID-19 and whether COVID-19 is circulating where you live. It is important to be informed of the situation and take appropriate measures to protect yourself and your family (see Protection measures for everyone).

If you are in an area where there are cases of COVID-19 you need to take the risk of infection seriously. Follow the advice of WHO and guidance issued by national and local health authorities. For most people, COVID-19 infection will cause mild illness however, it can make some people very ill and, in some people, it can be fatal. Older people, and those with pre-existing medical conditions (such as cardiovascular disease, chronic respiratory disease or diabetes) are at risk for severe disease (See <u>Protection measures for persons who are in or have recently visited (past 14 days) areas where COVID-19 is spreading</u>).

CASE DEFINITIONS

WHO periodically updates the <u>Global Surveillance for human infection with coronavirus disease (COVID-19)</u> document which includes case definitions.

For easy reference, case definitions are included below.

Suspect case

A. A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath), AND a history of travel to or residence in a location reporting community transmission of

COVID-19 disease during the 14 days prior to symptom onset.

OR

B. A patient with any acute respiratory illness AND having been in contact with a confirmed or probable COVID-19 case (see definition of contact) in the last 14 days prior to symptom onset;

OR

C. A patient with severe acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath; AND requiring hospitalization) AND in the absence of an alternative diagnosis that fully explains the clinical presentation.

Probable case

- A. A suspect case for whom testing for the COVID-19 virus is inconclusive.
 - a. Inconclusive being the result of the test reported by the laboratory.

OR

B. A suspect case for whom testing could not be performed for any reason.

Confirmed case

A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.

• Technical guidance for laboratory testing can be found here.

Definition of contact

A contact is a person who experienced any one of the following exposures during the 2 days before and the 14 days after the onset of symptoms of a probable or confirmed case:

- 1. Face-to-face contact with a probable or confirmed case within 1 meter and for more than 15 minutes;
- 2. Direct physical contact with a probable or confirmed case;
- 3. Direct care for a patient with probable or confirmed COVID-19 disease without using proper personal protective equipment¹; OR
- 4. Other situations as indicated by local risk assessments.

Note: for confirmed asymptomatic cases, the period of contact is measured as the 2 days before through the 14 days after the date on which the sample was taken which led to confirmation.

Definition of COVID-19 death

COVID-19 death is defined for surveillance purposes as a death resulting from a clinically compatible illness in a probable or confirmed COVID-19 case, unless there is a clear alternative cause of death that cannot be related to COVID disease (e.g. trauma). There should be no period of complete recovery between the illness and death.

Further guidance for certification and classification (coding) of COVID-19 as cause of death is available here.

¹ World Health Organization. Infection prevention and control during health care when COVID-19 is suspected <a href="https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125