

Coronavirus disease 2019 (COVID-19)

Situation Report – 99

Data as received by WHO from national authorities by 10:00 CEST, 28 April 2020

HIGHLIGHTS

- WHO has published the 'R&D Blueprint: COVID-19 Experimental Treatments', which lists drug and non-drug experimental treatments for COVID-19. This can be found [here](#).
- WHO has called on countries to ensure that usual immunization is maintained wherever possible and surveillance for vaccine-preventable diseases is not disrupted during the ongoing pandemic. The WHO Regional Office for Europe explores this in an article available [here](#).

WHO Director-General Dr. Tedros, in his regular media briefing yesterday, highlighted "As lockdowns in Europe ease with declining numbers of new cases, we continue to urge countries to find, isolate, test and treat all cases of COVID-19 and trace every contact, to ensure these declining trends continue". More information is available [here](#).

WHO continues to source millions of dollars of medical equipment and supplies to help Member States access global markets, which are overwhelmed by unprecedented demand. WHO is also supporting design and installation of COVID-19 treatment centres in a number of countries. For more, see 'Subject in Focus' below.

SITUATION IN NUMBERS

total (new cases in last 24 hours)

Globally

2 954 222 confirmed (76 026)
202 597 deaths (3932)

European Region

1 386 693 confirmed (27 313)
126 429 deaths (1904)

Region of the Americas

1 179 607 confirmed (39 087)
60 211 deaths (1722)

Eastern Mediterranean Region

171 238 confirmed (5305)
7148 deaths (157)

Western Pacific Region

145 385 confirmed (1264)
5998 deaths (40)

South-East Asia Region

48 348 confirmed (2288)
1917 deaths (93)

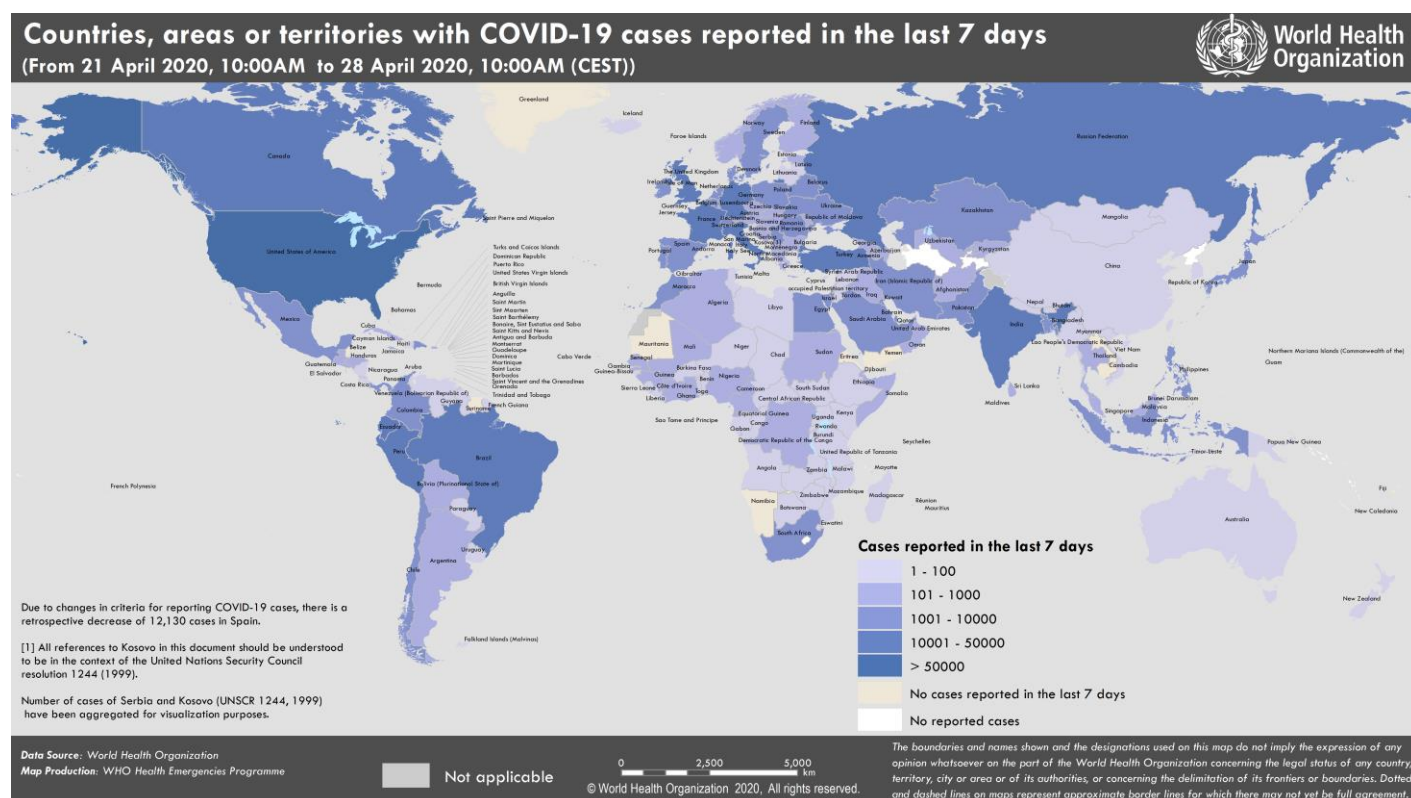
African Region

22 239 confirmed (769)
881 deaths (16)

WHO RISK ASSESSMENT

Global Level Very High

Figure 1. Countries, territories or areas with reported confirmed cases of COVID-19, 28 April 2020



SUBJECT IN FOCUS: Operations Support and Logistics (OSL) update

Sourcing Supplies – Progress Update

WHO and partners continue to work with suppliers to secure commitments for supplies needed for the COVID-19 response in countries with limited means to access markets for personal protective equipment, diagnostic testing supplies and clinical care equipment.

A diagnostic purchasing consortium, established by WHO to negotiate with manufacturers to address market shortages of diagnostic tests and supplies, has secured commitment for five million tests to be procured over the next four weeks. WHO continues to look for suppliers who can provide sample collection kits to increase overall procurement stocks.

Collective UN efforts to source extremely limited supplies of clinical equipment are ongoing. WHO and consortium partners have conducted market mapping activities to identify supply sources for oxygen concentrators, ventilators, and other essential equipment for COVID-19 treatment centers. To date, approximately US\$400 million in clinical care equipment has been identified from oxygen production, biomedical equipment and accessories manufacturers.

Discussions with private sector partners indicate manufacturers are generally in favour of the COVID-19 Supply Chain approach to sourcing and allocating supplies. This should bring clarity and transparency to requests for critical supplies that manufacturers are receiving from around the world.

Sourcing activities for personal protective equipment are ongoing. The first batch of purchases are expected to be placed for 75 million masks, 50 million respirators, 28 million gloves and 10 million face shields.

Discussions are ongoing with the Jack Ma Foundation for an additional provision of 100 million surgical masks and one million respirators.

Technical support for COVID-19 treatment centres

WHO is supporting Italy's Bologna and Puglia provinces, helping to design and install COVID-19 treatment centres in these provinces' hospitals.

In Nigeria, WHO has provided technical guidance for a proposed self-quarantine facility in an internally displaced persons (IDP) camp run by the International Organization for Migration (IOM).

WHO has also provided support for the installation of COVID-19 treatment facilities in Burkina Faso, Côte d'Ivoire, Senegal, São Tomé and Príncipe and Australia.

SURVEILLANCE

Table 1. Countries, territories or areas with reported laboratory-confirmed COVID-19 cases and deaths, by WHO region. * Data as of 28 April 2020

Reporting Country/ Territory/Area [†]	Total confirmed [‡] cases	New confirmed cases	Total deaths	New deaths	Transmission classification [§]	Days since last reported case
Western Pacific Region						
China	84347	6	4643	0	Clusters of cases	0
Singapore	14423	799	14	2	Clusters of cases	0
Japan	13576	191	376	25	Clusters of cases	0
Republic of Korea	10752	14	244	1	Clusters of cases	0
Philippines	7777	198	511	10	Clusters of cases	0
Australia	6725	12	84	1	Clusters of cases	0
Malaysia	5820	40	99	1	Clusters of cases	0
New Zealand	1124	2	19	0	Clusters of cases	0
Viet Nam	270	0	0	0	Clusters of cases	1
Brunei Darussalam	138	0	1	0	Sporadic cases	8
Cambodia	122	0	0	0	Sporadic cases	16
Mongolia	38	0	0	0	Sporadic cases	1
Lao People's Democratic Republic	19	0	0	0	Sporadic cases	15
Fiji	18	0	0	0	Sporadic cases	7
Papua New Guinea	8	0	0	0	Sporadic cases	5
Territories^{**}						
Guam	138	1	5	0	Clusters of cases	0
French Polynesia	58	1	0	0	Sporadic cases	0
New Caledonia	18	0	0	0	Sporadic cases	25
Northern Mariana Islands (Commonwealth of the)	14	0	2	0	Pending	10
European Region						
Spain	209465	1831	23190	0	Pending	0
Italy	199414	1739	26977	333	Community transmission	0
The United Kingdom	157153	4309	21092	360	Community transmission	0
Germany	156337	1144	5913	163	Community transmission	0
France	127008	3729	23261	440	Community transmission	0
Turkey	112261	2131	2900	95	Community transmission	0
Russian Federation	93558	6411	867	73	Clusters of cases	0
Belgium	46687	553	7207	113	Community transmission	0
Netherlands	38245	400	4518	43	Community transmission	0

Switzerland	29081	103	1352	16	Community transmission	0
Portugal	24027	163	928	25	Pending	0
Ireland	19648	386	1102	15	Community transmission	0
Sweden	18926	286	2274	80	Community transmission	0
Israel	15466	68	202	3	Pending	0
Austria	15256	67	549	7	Community transmission	0
Belarus	12208	1745	79	7	Clusters of cases	0
Poland	11902	285	562	27	Community transmission	0
Romania	11339	303	631	23	Community transmission	0
Ukraine	9410	401	239	19	Community transmission	0
Denmark	8698	123	427	5	Pending	0
Serbia	8275	233	162	6	Pending	0
Norway	7533	28	193	0	Pending	0
Czechia	7449	45	223	2	Community transmission	0
Finland	4695	119	193	3	Pending	0
Luxembourg	3729	6	88	0	Pending	0
Republic of Moldova	3481	73	103	7	Pending	0
Kazakhstan	2982	191	25	0	Pending	0
Hungary	2649	66	291	11	Clusters of cases	0
Greece	2534	28	136	6	Community transmission	0
Croatia	2039	9	59	4	Community transmission	0
Uzbekistan	1924	37	8	0	Clusters of cases	0
Armenia	1867	59	30	1	Clusters of cases	0
Iceland	1792	0	10	0	Community transmission	1
Azerbaijan	1678	33	22	1	Clusters of cases	0
Estonia	1647	4	50	1	Pending	0
Bosnia and Herzegovina	1564	48	60	2	Community transmission	0
Lithuania	1449	0	41	0	Community transmission	1
Slovenia	1407	0	83	1	Community transmission	1
North Macedonia	1399	13	65	4	Clusters of cases	0
Slovakia	1381	2	18	0	Clusters of cases	0
Bulgaria	1363	63	58	2	Pending	0
Cyprus	822	5	20	3	Clusters of cases	0
Latvia	818	6	13	1	Community transmission	0
Andorra	748	8	40	0	Community transmission	0
Albania	736	10	28	0	Clusters of cases	0

Kyrgyzstan	708	13	8	0	Pending	0
San Marino	538	0	41	0	Community transmission	1
Georgia	511	15	6	0	Community transmission	0
Malta	450	2	4	0	Pending	0
Montenegro	321	0	7	0	Clusters of cases	1
Liechtenstein	83	0	1	0	Pending	1
Monaco	68	0	1	0	Sporadic cases	14
Holy See	9	0	0	0	Sporadic cases	7
Territories**						
Kosovo ^[1]	780	17	22	1	Community transmission	0
Isle of Man	308	0	18	0	Pending	1
Jersey	281	1	19	0	Pending	0
Guernsey	247	2	13	1	Community transmission	0
Faroe Islands	187	0	0	0	Pending	4
Gibraltar	141	0	0	0	Clusters of cases	1
Greenland	11	0	0	0	Pending	22
South-East Asia Region						
India	29435	1543	934	62	Clusters of cases	0
Indonesia	9096	214	765	22	Community transmission	0
Bangladesh	5913	497	152	7	Pending	0
Thailand	2938	7	54	2	Pending	0
Sri Lanka	523	0	7	0	Clusters of cases	1
Maldives	214	26	0	0	Clusters of cases	0
Myanmar	146	0	5	0	Clusters of cases	1
Nepal	52	1	0	0	Sporadic cases	0
Timor-Leste	24	0	0	0	Clusters of cases	4
Bhutan	7	0	0	0	Sporadic cases	5
Eastern Mediterranean Region						
Iran (Islamic Republic of)	91472	991	5806	96	Community transmission	0
Saudi Arabia	18811	1289	144	5	Clusters of cases	0
Pakistan	13915	587	292	11	Clusters of cases	0
Qatar	11244	957	10	0	Pending	0
United Arab Emirates	10839	490	82	6	Pending	0
Egypt	4782	248	337	20	Clusters of cases	0
Morocco	4120	55	162	1	Clusters of cases	0
Kuwait	3288	213	22	2	Clusters of cases	0
Bahrain	2723	76	8	0	Clusters of cases	0
Oman	2131	82	10	0	Clusters of cases	0
Iraq	1847	27	88	1	Clusters of cases	0
Afghanistan	1703	172	60	10	Clusters of cases	

Somalia	480	44	26	3	Sporadic cases	0
Jordan	449	2	7	0	Clusters of cases	0
Sudan	275	38	22	1	Sporadic cases	0
Libya	61	0	2	0	Clusters of cases	1
Syrian Arab Republic	43	1	3	0	Community transmission	0
Yemen	1	0	0	0	Pending	17
Territories**						
occupied Palestinian territory	342	0	2	0	Clusters of cases	1
Region of the Americas						
United States of America	960916	29218	49170	1190	Community transmission	0
Brazil	61888	3379	4205	189	Community transmission	0
Canada	47316	1538	2617	128	Community transmission	0
Peru	27517	2186	728	28	Community transmission	0
Ecuador	23240	521	663	87	Community transmission	0
Mexico	14677	835	1351	46	Community transmission	0
Chile	13813	482	198	9	Community transmission	0
Dominican Republic	6293	158	282	4	Community transmission	0
Panama	5779	241	165	6	Community transmission	0
Colombia	5379	237	244	11	Community transmission	0
Argentina	3892	54	192	13	Community transmission	0
Cuba	1389	20	56	2	Clusters of cases	0
Bolivia (Plurinational State of)	950	84	50	4	Clusters of cases	0
Costa Rica	695	2	6	0	Clusters of cases	0
Honduras	661	34	61	2	Clusters of cases	0
Uruguay	606	10	15	1	Clusters of cases	0
Guatemala	500	27	15	0	Clusters of cases	0
Venezuela (Bolivarian Republic of)	325	2	10	0	Clusters of cases	0
El Salvador	323	25	8	0	Clusters of cases	0
Jamaica	305	0	7	0	Clusters of cases	1
Paraguay	228	0	9	0	Community transmission	1
Trinidad and Tobago	116	1	8	0	Sporadic cases	0
Bahamas	80	2	11	0	Clusters of cases	0
Barbados	79	0	6	0	Clusters of cases	1
Guyana	74	0	8	0	Clusters of cases	1
Haiti	74	2	6	0	Clusters of cases	0
Antigua and Barbuda	24	0	3	0	Clusters of cases	5
Belize	18	0	2	0	Sporadic cases	13

Grenada	18	0	0	0	Clusters of cases	1
Dominica	16	0	0	0	Clusters of cases	17
Saint Kitts and Nevis	15	0	0	0	Sporadic cases	7
Saint Lucia	15	0	0	0	Sporadic cases	16
Saint Vincent and the Grenadines	15	1	0	0	Sporadic cases	0
Nicaragua	13	0	3	0	Pending	1
Suriname	10	0	1	0	Sporadic cases	24
Territories**						
Puerto Rico	1389	18	53	0	Clusters of cases	0
Martinique	175	0	14	0	Clusters of cases	1
Guadeloupe	149	0	10	0	Clusters of cases	1
French Guiana	111	2	1	0	Clusters of cases	0
Bermuda	109	0	6	1	Clusters of cases	1
Aruba	100	0	2	0	Clusters of cases	5
Sint Maarten	74	0	13	0	Clusters of cases	1
Cayman Islands	70	0	1	0	Clusters of cases	1
United States Virgin Islands	59	4	4	1	Clusters of cases	0
Saint Martin	38	0	3	0	Sporadic cases	5
Curaçao	16	2	1	0	Sporadic cases	0
Falkland Islands (Malvinas)	13	0	0	0	Clusters of cases	1
Turks and Caicos Islands	12	1	1	0	Sporadic cases	0
Montserrat	11	0	1	0	Sporadic cases	14
Bonaire, Sint Eustatius and Saba	6	1	0	0	Sporadic cases	0
British Virgin Islands	6	0	1	0	Sporadic cases	1
Saint Barthélemy	6	0	0	0	Sporadic cases	28
Anguilla	3	0	0	0	Sporadic cases	24
Saint Pierre and Miquelon	1	0	0	0	Sporadic cases	20
African Region						
South Africa	4793	247	90	3	Community transmission	0
Algeria	3517	135	432	7	Community transmission	0
Cameroon	1621	0	56	0	Clusters of cases	1
Ghana	1550	0	11	0	Clusters of cases	1
Nigeria	1337	64	40	0	Community transmission	0
Côte d'Ivoire	1164	14	14	0	Clusters of cases	0
Guinea	1163	69	7	0	Community transmission	0
Senegal	735	64	9	0	Clusters of cases	0
Niger	701	5	29	0	Clusters of cases	0
Burkina Faso	632	0	42	0	Community transmission	1
Democratic Republic of the Congo	471	12	30	2	Clusters of cases	0
Mali	408	19	23	0	Clusters of cases	0

Kenya	363	8	14	0	Clusters of cases	0
Mauritius	334	2	9	0	Community transmission	0
United Republic of Tanzania	300	0	10	0	Clusters of cases	1
Equatorial Guinea	258	0	1	0	Clusters of cases	1
Congo	207	7	8	0	Clusters of cases	0
Rwanda	207	16	0	0	Clusters of cases	0
Gabon	176	0	3	0	Clusters of cases	1
Liberia	133	9	16	4	Clusters of cases	0
Madagascar	128	0	0	0	Clusters of cases	1
Ethiopia	124	1	3	0	Clusters of cases	0
Cabo Verde	106	0	1	0	Sporadic cases	1
Sierra Leone	99	6	4	0	Clusters of cases	0
Togo	99	1	6	0	Clusters of cases	0
Zambia	89	1	3	0	Sporadic cases	0
Uganda	79	4	0	0	Sporadic cases	0
Mozambique	76	0	0	0	Sporadic cases	1
Guinea-Bissau	73	20	1	0	Sporadic cases	0
Eswatini	65	6	1	0	Sporadic cases	0
Benin	64	0	1	0	Sporadic cases	1
Chad	46	0	0	0	Sporadic cases	1
Central African Republic	42	23	0	0	Sporadic cases	0
Eritrea	39	0	0	0	Sporadic cases	9
Malawi	36	2	3	0	Sporadic cases	0
Zimbabwe	31	0	4	0	Sporadic cases	1
Angola	27	1	2	0	Sporadic cases	0
Botswana	22	0	1	0	Sporadic cases	5
Namibia	16	0	0	0	Sporadic cases	22
Burundi	15	0	1	0	Sporadic cases	1
Seychelles	11	0	0	0	Sporadic cases	21
Gambia	10	0	1	0	Sporadic cases	7
São Tomé and Príncipe	8	0	0	0	Sporadic cases	4
Mauritania	7	0	1	0	Sporadic cases	17
South Sudan	6	0	0	0	Sporadic cases	1
Territories**						
Mayotte	433	32	4	0	Clusters of cases	0
Réunion	418	1	0	0	Clusters of cases	0
Subtotal for all Regions	2953510	76026	202584	3932		
International conveyance (Diamond Princess)	712	0	13	0	Not Applicable ^{††}	43
Grand total	2954222	76026	202597	3932		

* Countries are arranged by official WHO regions, in descending order by the number of total confirmed cases. Overseas territories** are listed under the WHO region that administers them.

†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

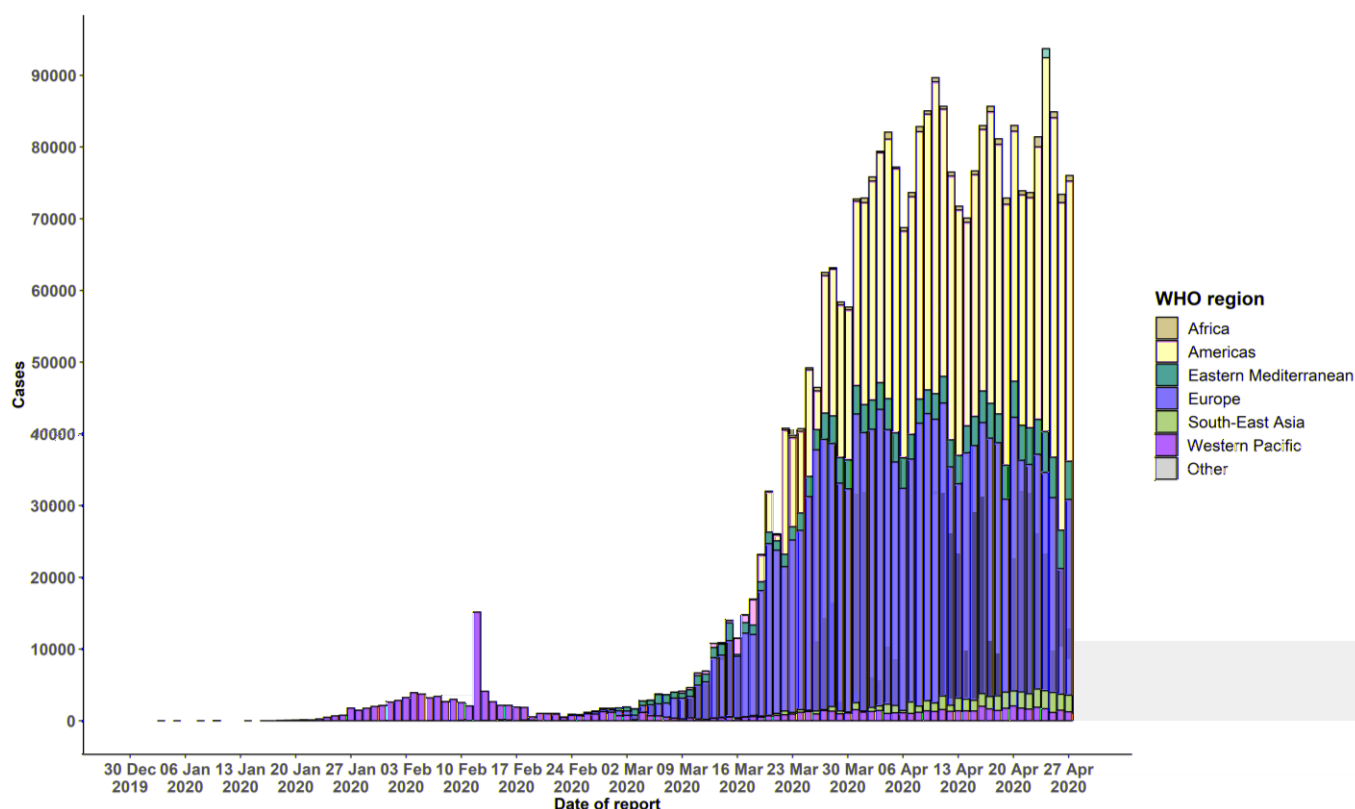
** "Territories" include territories, areas, overseas dependencies and other jurisdictions of similar status

^[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 2. Epidemic curve of confirmed COVID-19, by date of report and WHO region through 28 April 2020



Note: Numbers in the epidemic curve have now been adjusted to reflect the data reconciliation in Spain.

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 [disease commodity package](#) 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 [updated recommendations for international traffic in relation to COVID-19 outbreak](#).

WHO has activated the R&D blueprint to accelerate diagnostics, vaccines, and therapeutics.

OpenWHO is an interactive, web-based, knowledge-transfer platform offering free online courses to improve the response to health emergencies. COVID-19 resources are hosted on 2 learning channels: one for [courses in official WHO languages here](#) and a second for [courses in additional national languages here](#).

- There are more than 1.5 million enrolments in the platform's courses to support the COVID-19 response. Specifically, WHO has developed courses on the following topics:
- A general introduction to emerging respiratory viruses, including novel coronaviruses (available in [Arabic](#), [Chinese](#), [English](#), [French](#), [Russian](#), [Spanish](#), [Bengali](#), [Hindi](#), [Hungarian](#), [Indian Sign Language](#), [Indonesian](#), [Macedonian](#), [Persian](#), [Portuguese](#), [Serbian](#), [Turkish](#) and [Vietnamese](#));

- Clinical care for Severe Acute Respiratory Infection (SARI) (available in [English](#), [French](#), [Russian](#), [Simplified Chinese](#), [Arabic](#), [Portuguese](#) and [Vietnamese](#));
- Health and safety briefing for respiratory diseases – ePROTECT (available in [Arabic](#), [Chinese](#), [English](#), [French](#), [Russian](#), [Spanish](#), [Indonesian](#) and [Portuguese](#));
- Infection Prevention and Control for COVID-19 (available in [Chinese](#), [English](#), [French](#), [Russian](#), [Spanish](#), [Indonesian](#), [Italian](#), [Japanese](#), [Macedonian](#), [Portuguese](#), [Serbian](#) and [Turkish](#));
- COVID-19 operational planning guidelines and partners platform to support country preparedness and response (available in [Chinese](#), [English](#), [French](#), [Russian](#), [Indonesian](#) and [Portuguese](#));
- SARI treatment facility design (available in [Arabic](#), [English](#), [Italian](#) and [Portuguese](#));
- e-PROTECT (available in [English](#) and coming soon in additional languages);
- How to put on and remove personal protective equipment (PPE) for COVID-19 (available in [English](#) and coming soon in additional languages); and
- Standard precautions for hand hygiene (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 quarantine.

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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 [https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125)