Coronavirus disease 2019 (COVID-19)
Situation Report – 100

HIGHLIGHTS

- Globally, the number of total confirmed cases has exceeded 3 million.

- WHO has published a technical guidance titled 'Strengthening Preparedness for COVID-19 in Cities and Urban Settings'. The guidance supports local leaders and policy-makers in cities and other urban settings in implementing actions that enhance the prevention, preparedness and readiness for COVID-19. The document can be found here.

- The WHO Regional Office for Europe has highlighted the critical importance of patient rehabilitation in light of the COVID-19 pandemic. More information is available here.

- WHO Regional Director for the Eastern Mediterranean Region, Dr. Ahmed Al-Mandhari, has called for 'all to put aside their differences, find common ground, and work together for the sake of humanity'. More information is available here.

- The WHO Information Network for Epidemics (EPI-WIN) has rapidly built an innovative analysis capability to identify misleading sources, posts and narratives, and predict rising areas of concern and information voids. For more on this, see the 'Subject in Focus' below.

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

Globally
3 018 681 confirmed (66 005)
207 973 deaths (5376)

European Region
1 406 899 confirmed (21 750)
129 311 deaths (2882)

Region of the Americas
1 213 088 confirmed (33 481)
62 404 deaths (2193)

Eastern Mediterranean Region
176 928 confirmed (5690)
7304 deaths (156)

Western Pacific Region
146 449 confirmed (1064)
6037 deaths (39)

South-East Asia Region
51 351 confirmed (3003)
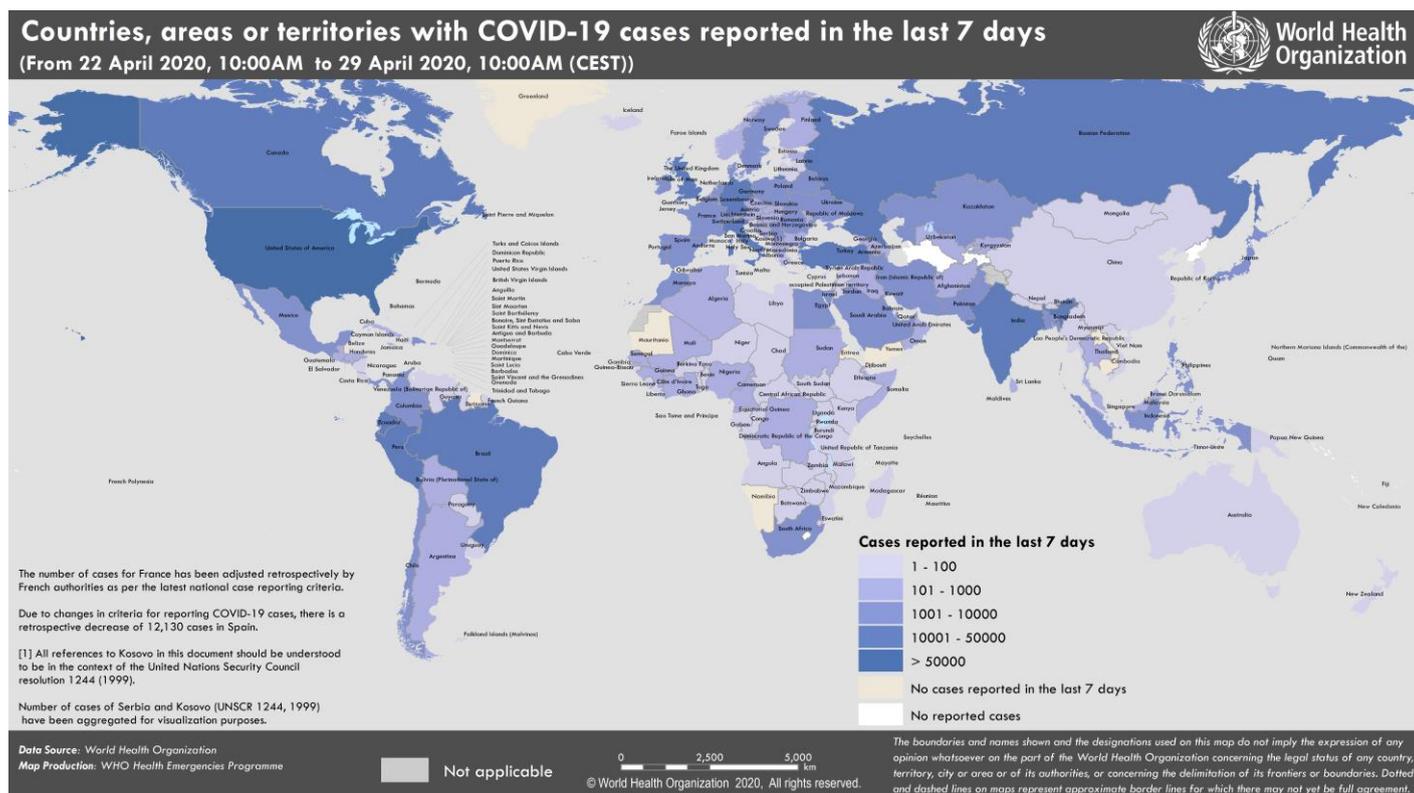2001 deaths (84)

African Region
23 254 confirmed (1017)
903 deaths (22)

WHO RISK ASSESSMENT
Global Level   Very High

Figure 1. Countries, territories or areas with reported confirmed cases of COVID-19, 29 April 2020

SUBJECT IN FOCUS: Adapting social media listening to fight the COVID-19 infodemic

Never before has so much real-time information been collated and shared in the public domain during a public health crisis. This is largely due to the rapid growth of digital communications and social networking which have brought about both positive and negative impacts on society. Today, we are fighting a massive 'infodemic'– an overabundance of false or misleading information on COVID-19, which poses a grave threat to response efforts and public health. At the same time however, new and impactful measures to manage the infodemic have been identified.

The WHO Information Network for Epidemics (EPI-WIN), in collaboration with research partners, has rapidly built an innovative analysis capability, to run a weekly study using digital media data to identify, understand and categorize the key concerns expressed by millions of people online. The purpose of this groundbreaking work is to provide WHO with curated intelligence to fill information voids with solid facts from trusted sources before misleading information becomes viral, causing further damage to communities.

The public perception of misleading or false information often coincides with harmful rumour-spreading posts, groups and profiles that are widely spread on social media platforms. EPI-WIN's work in this area therefore focuses not only on identifying misleading sources, posts and narratives, but on identifying or predicting rising areas of concern and information voids.

Figure 2: Shifting paradigm in social media listening

Source: Tim Zechin, Media Measurement; drawing by Sam Bradd

This is made possible by aggregating publicly available social and news media, web analytics as well as online search data, currently in the English language. Data sets are based around a newly developed pandemic public health taxonomy that focuses on four thematic areas: the cause, the illness, the interventions, and the treatment. In addition, a fifth area looks at the type of information shared and meta-conversations on mis- and dis-information.

These data, captured at a global level, provide the baseline for the analysis, and are examined by digital consultants to identify the most prevalent thematic areas, and themes that are seeing the highest level of growth. Analysts then detect the pace at which comments on these themes are shared, their networks and potentially threatening sources. This systematic approach gives the EPI-WIN team an early warning of the points of concern expressed by the digital public.

Advanced language analytics are also applied to the data, to measure the presence of emotional language and provide insight into how people are discussing topics. These also highlight whether there is a tangible week-on-week shift in emotional language used for each tracked taxonomy. The analysis focuses on emotions (including denial, sadness, anxiety, fear, anger and acceptance), rather than sentiment (positive versus negative). This enables WHO to share the types and formats of information needed to address the needs of the public in the most effective way.

Weekly insights highlight key topics of concern, including areas demonstrating an increase in the spread of misleading information, how and where that information has been spread, the context behind the spread, and the underlying narratives that need to be addressed through reliable information.

Applying this methodology to public health has provided invaluable insight, inspiring new ways of thinking and communicating risk during health emergencies. This research framework is now being used in Canada in French by
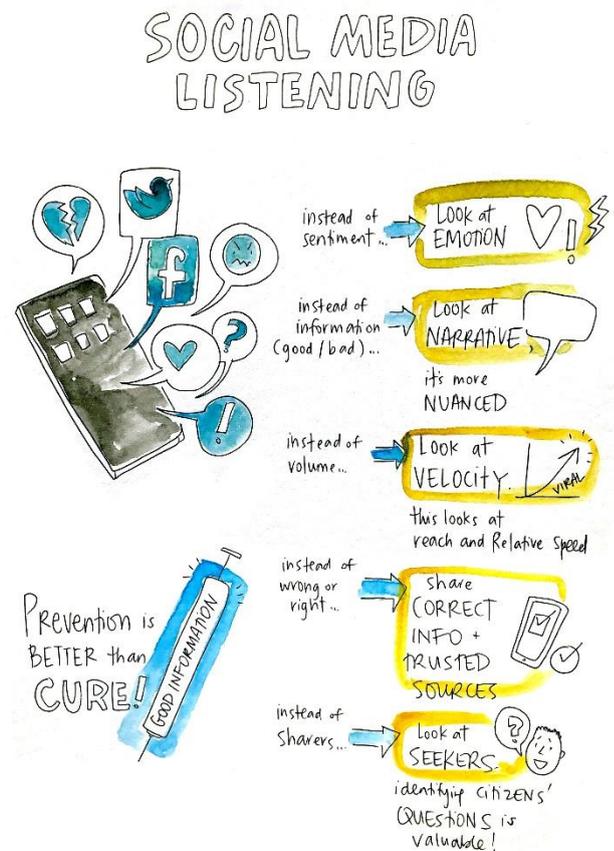
the Québec National Institute of Public Health (INSPQ) to guide public health communication strategies in the province. There is now an opportunity to compare the similarities and differences of how this insight can be used at the local level, and with the added layer of bilingual search options.

The general approach to analysis was presented at the recent WHO consultation on infodemic management framework.

Figure 3: EPI-WIN infodemic intelligence and signals monitoring
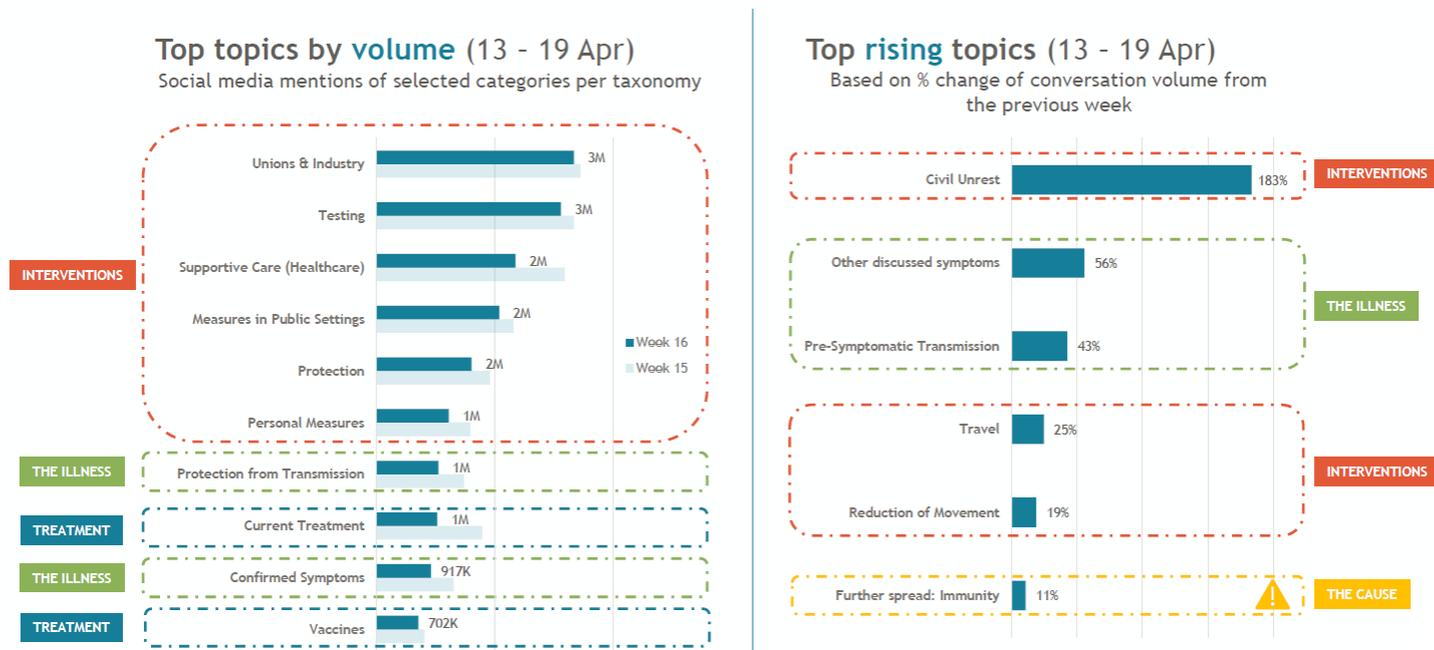
Source: Paolo Vacca and Amy Wright, Media Measurement

WHO Information network for Epidemics: www.who.int/epi-win

SURVEILLANCE

Table 1. Countries, territories or areas with reported laboratory-confirmed COVID-19 cases and deaths, by WHO region.[*] Data as of 29 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	84369	22	4643	0	Clusters of cases	0
Singapore	14951	528	14	0	Clusters of cases	0
Japan	13852	276	389	13	Clusters of cases	0
Republic of Korea	10761	9	246	2	Clusters of cases	0
Philippines	7958	181	530	19	Clusters of cases	0
Australia	6738	13	88	4	Clusters of cases	0
Malaysia	5851	31	100	1	Clusters of cases	0
New Zealand	1126	2	19	0	Clusters of cases	0
Viet Nam	270	0	0	0	Clusters of cases	4
Brunei Darussalam	138	0	1	0	Sporadic cases	9
Cambodia	122	0	0	0	Sporadic cases	17
Mongolia	38	0	0	0	Sporadic cases	2
Lao People's Democratic Republic	19	0	0	0	Sporadic cases	16
Fiji	18	0	0	0	Sporadic cases	8
Papua New Guinea	8	0	0	0	Sporadic cases	6
Territories[**]						
Guam	140	2	5	0	Clusters of cases	0
French Polynesia	58	0	0	0	Sporadic cases	1
New Caledonia	18	0	0	0	Sporadic cases	26
Northern Mariana Islands (Commonwealth of the)	14	0	2	0	Pending	11
European Region						
Spain	210773	1308	23822	632	Pending	0
Italy	201505	2091	27359	382	Community transmission	0
The United Kingdom	161149	3996	21678	586	Community transmission	0
Germany	157641	1304	6115	202	Community transmission	0
France	125464	0	23627	366	Community transmission	0
Turkey	114653	2392	2992	92	Community transmission	0
Russian Federation	99399	5841	972	105	Clusters of cases	0
Belgium	47334	647	7331	124	Community transmission	0
Netherlands	38416	171	4566	48	Community transmission	0

Switzerland	29181	100	1379	27	Community transmission	0
Portugal	24322	295	948	20	Community transmission	0
Ireland	19877	229	1159	57	Community transmission	0
Sweden	19621	695	2355	81	Community transmission	0
Israel	15782	316	212	10	Pending	0
Austria	15314	58	569	20	Community transmission	0
Poland	12218	316	596	34	Community transmission	0
Belarus	12208	0	79	0	Clusters of cases	1
Romania	11616	277	650	19	Community transmission	0
Ukraine	9866	456	250	11	Community transmission	0
Denmark	8851	153	434	7	Pending	0
Serbia	8497	222	168	6	Pending	0
Norway	7605	72	195	2	Pending	0
Czechia	7504	55	227	4	Community transmission	0
Finland	4740	45	199	6	Pending	0
Luxembourg	3741	12	89	1	Pending	0
Republic of Moldova	3638	157	109	6	Pending	0
Kazakhstan	3078	96	25	0	Pending	0
Hungary	2727	78	300	9	Clusters of cases	0
Greece	2534	0	136	0	Community transmission	1
Croatia	2047	8	63	4	Community transmission	0
Uzbekistan	1955	31	8	0	Clusters of cases	0
Armenia	1932	65	30	0	Clusters of cases	0
Iceland	1795	3	10	0	Community transmission	0
Azerbaijan	1717	39	22	0	Clusters of cases	0
Estonia	1660	13	50	0	Pending	0
Bosnia and Herzegovina	1588	24	62	2	Community transmission	0
Lithuania	1449	0	44	3	Community transmission	2
North Macedonia	1421	22	71	6	Clusters of cases	0
Slovenia	1408	1	86	3	Community transmission	0
Bulgaria	1399	36	58	0	Pending	0
Slovakia	1384	3	20	2	Clusters of cases	0
Cyprus	837	15	20	0	Clusters of cases	0
Latvia	836	18	13	0	Community transmission	0
Albania	766	30	30	2	Clusters of cases	0
Andorra	753	5	41	1	Community transmission	0

Kyrgyzstan	729	21	8	0	Pending	0
San Marino	553	15	41	0	Community transmission	0
Georgia	517	6	6	0	Community transmission	0
Malta	450	0	4	0	Pending	1
Montenegro	321	0	7	0	Clusters of cases	2
Liechtenstein	83	0	1	0	Pending	3
Monaco	68	0	1	0	Sporadic cases	15
Holy See	10	1	0	0	Sporadic cases	0
Territories**						
Kosovo[1]	790	10	22	0	Community transmission	0
Isle of Man	308	0	20	2	Pending	4
Jersey	283	2	19	0	Pending	0
Guernsey	247	0	13	0	Community transmission	1
Faroe Islands	187	0	0	0	Pending	5
Gibraltar	141	0	0	0	Clusters of cases	2
Greenland	11	0	0	0	Pending	23
South-East Asia Region						
India	31332	1897	1007	73	Clusters of cases	0
Indonesia	9511	415	773	8	Community transmission	0
Bangladesh	6462	549	155	3	Pending	0
Thailand	2947	9	54	0	Pending	0
Sri Lanka	619	96	7	0	Clusters of cases	0
Maldives	245	31	0	0	Clusters of cases	0
Myanmar	150	4	5	0	Clusters of cases	0
Nepal	54	2	0	0	Sporadic cases	0
Timor-Leste	24	0	0	0	Clusters of cases	5
Bhutan	7	0	0	0	Sporadic cases	6
Eastern Mediterranean Region						
Iran (Islamic Republic of)	92584	1112	5877	71	Community transmission	0
Saudi Arabia	20077	1266	152	8	Clusters of cases	0
Pakistan	14885	970	327	35	Clusters of cases	0
Qatar	11921	677	10	0	Pending	0
United Arab Emirates	11380	541	89	7	Pending	0
Egypt	5042	260	359	22	Clusters of cases	0
Morocco	4252	132	165	3	Clusters of cases	0
Kuwait	3440	152	23	1	Clusters of cases	0
Bahrain	2811	88	8	0	Clusters of cases	0
Oman	2274	143	10	0	Clusters of cases	0
Iraq	1928	81	90	2	Clusters of cases	0
Afghanistan	1827	124	60	0	Clusters of cases	0
Djibouti	1072	37	2	0	Clusters of cases	0
Tunisia	975	8	40	1	Community transmission	0
Lebanon	717	7	24	0	Clusters of cases	0

Somalia	528	48	28	2	Sporadic cases	0
Jordan	449	0	8	1	Clusters of cases	1
Sudan	318	43	25	3	Sporadic cases	0
Libya	61	0	2	0	Clusters of cases	4
Syrian Arab Republic	43	0	3	0	Community transmission	1
Yemen	1	0	0	0	Pending	18
Territories[**]						
occupied Palestinian territory	343	1	2	0	Clusters of cases	0
Region of the Americas						
United States of America	983457	22541	50492	1322	Community transmission	0
Brazil	66501	4613	4543	338	Community transmission	0
Canada	49014	1698	2766	149	Community transmission	0
Peru	28699	1182	782	54	Community transmission	0
Ecuador	24258	1018	871	208	Community transmission	0
Mexico	15529	852	1434	83	Community transmission	0
Chile	14365	552	207	9	Community transmission	0
Dominican Republic	6416	123	286	4	Community transmission	0
Panama	6021	242	167	2	Community transmission	0
Colombia	5597	218	253	9	Community transmission	0
Argentina	4019	127	197	5	Community transmission	0
Cuba	1437	48	58	2	Clusters of cases	0
Bolivia (Plurinational State of)	1014	64	53	3	Clusters of cases	0
Honduras	702	41	64	3	Clusters of cases	0
Costa Rica	697	2	6	0	Clusters of cases	0
Uruguay	620	14	15	0	Clusters of cases	0
Guatemala	530	30	15	0	Clusters of cases	0
Jamaica	364	59	7	0	Clusters of cases	0
El Salvador	345	22	8	0	Clusters of cases	0
Venezuela (Bolivarian Republic of)	329	4	10	0	Clusters of cases	0
Paraguay	230	2	9	0	Community transmission	0
Trinidad and Tobago	116	0	8	0	Sporadic cases	1
Bahamas	80	0	11	0	Clusters of cases	1
Barbados	80	1	6	0	Clusters of cases	0
Haiti	76	2	6	0	Clusters of cases	0
Guyana	74	0	8	0	Clusters of cases	2
Antigua and Barbuda	24	0	3	0	Clusters of cases	6
Belize	18	0	2	0	Sporadic cases	14

Grenada	18	0	0	0	Clusters of cases	2
Dominica	16	0	0	0	Clusters of cases	18
Saint Kitts and Nevis	15	0	0	0	Sporadic cases	8
Saint Lucia	15	0	0	0	Sporadic cases	17
Saint Vincent and the Grenadines	15	0	0	0	Sporadic cases	1
Nicaragua	13	0	3	0	Pending	2
Suriname	10	0	1	0	Sporadic cases	25
Territories**						
Puerto Rico	1400	11	54	1	Clusters of cases	0
Martinique	175	0	14	0	Clusters of cases	2
Guadeloupe	149	0	11	1	Clusters of cases	4
French Guiana	124	13	1	0	Clusters of cases	0
Bermuda	110	1	6	0	Clusters of cases	0
Aruba	100	0	2	0	Clusters of cases	6
Sint Maarten	75	1	13	0	Clusters of cases	0
Cayman Islands	70	0	1	0	Clusters of cases	3
United States Virgin Islands	59	0	4	0	Clusters of cases	1
Saint Martin	38	0	3	0	Sporadic cases	6
Curaçao	16	0	1	0	Sporadic cases	1
Falkland Islands (Malvinas)	13	0	0	0	Clusters of cases	3
Turks and Caicos Islands	12	0	1	0	Sporadic cases	1
Montserrat	11	0	1	0	Sporadic cases	15
Bonaire, Sint Eustatius and Saba	6	0	0	0	Sporadic cases	1
British Virgin Islands	6	0	1	0	Sporadic cases	3
Saint Barthélemy	6	0	0	0	Sporadic cases	29
Anguilla	3	0	0	0	Sporadic cases	25
Saint Pierre and Miquelon	1	0	0	0	Sporadic cases	21
African Region						
South Africa	4996	203	93	3	Community transmission	0
Algeria	3649	132	437	5	Community transmission	0
Cameroon	1705	84	58	2	Clusters of cases	0
Ghana	1671	121	16	5	Clusters of cases	0
Nigeria	1337	0	40	0	Community transmission	1
Guinea	1240	77	7	0	Community transmission	0
Côte d'Ivoire	1183	19	14	0	Clusters of cases	0
Senegal	823	88	9	0	Clusters of cases	0
Niger	709	8	31	2	Clusters of cases	0
Burkina Faso	638	6	42	0	Community transmission	0
Democratic Republic of the Congo	491	20	30	0	Clusters of cases	0
Mali	424	16	24	1	Clusters of cases	0

Country	Total	New	Deaths	New deaths	Transmission	New
Kenya	374	11	14	0	Clusters of cases	0
Mauritius	332	0	10	1	Community transmission	2
Equatorial Guinea	315	57	1	0	Clusters of cases	0
United Republic of Tanzania	300	0	10	0	Clusters of cases	4
Gabon	238	62	3	0	Clusters of cases	0
Rwanda	212	5	0	0	Clusters of cases	0
Congo	207	0	8	0	Clusters of cases	1
Liberia	141	8	16	0	Clusters of cases	0
Madagascar	128	0	0	0	Clusters of cases	2
Ethiopia	126	2	3	0	Clusters of cases	0
Cabo Verde	113	7	1	0	Sporadic cases	0
Sierra Leone	104	5	5	1	Clusters of cases	0
Togo	99	0	6	0	Clusters of cases	1
Zambia	95	6	3	0	Sporadic cases	0
Uganda	79	0	0	0	Sporadic cases	1
Mozambique	76	0	0	0	Sporadic cases	2
Guinea-Bissau	73	0	1	0	Sporadic cases	1
Eswatini	71	6	1	0	Sporadic cases	0
Benin	64	0	1	0	Sporadic cases	2
Chad	52	6	2	2	Sporadic cases	0
Central African Republic	50	8	0	0	Sporadic cases	0
Eritrea	39	0	0	0	Sporadic cases	10
Malawi	36	0	3	0	Sporadic cases	1
South Sudan	34	28	0	0	Sporadic cases	0
Zimbabwe	32	1	4	0	Sporadic cases	0
Angola	27	0	2	0	Sporadic cases	1
Botswana	23	1	1	0	Sporadic cases	0
Namibia	16	0	0	0	Sporadic cases	23
Burundi	15	0	1	0	Sporadic cases	2
São Tomé and Príncipe	11	3	0	0	Sporadic cases	0
Seychelles	11	0	0	0	Sporadic cases	22
Gambia	10	0	1	0	Sporadic cases	8
Mauritania	7	0	1	0	Sporadic cases	18
Territories[**]						
Mayotte	460	27	4	0	Clusters of cases	0
Réunion	418	0	0	0	Clusters of cases	1
Subtotal for all Regions	**3017969**	**66005**	**207960**	**5376**		
International conveyance (Diamond Princess)	712	0	13	0	Not Applicable[††]	44
Grand total	**3018681**	**66005**	**207973**	**5376**		

[*]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.

The number of cases for France has been adjusted retrospectively by French authorities as per the latest national case reporting criteria.

Erratum: Total cases and new cases have been revised for Singapore.

Figure 4. Epidemic curve of confirmed COVID-19, by date of report and WHO region through 29 April 2020

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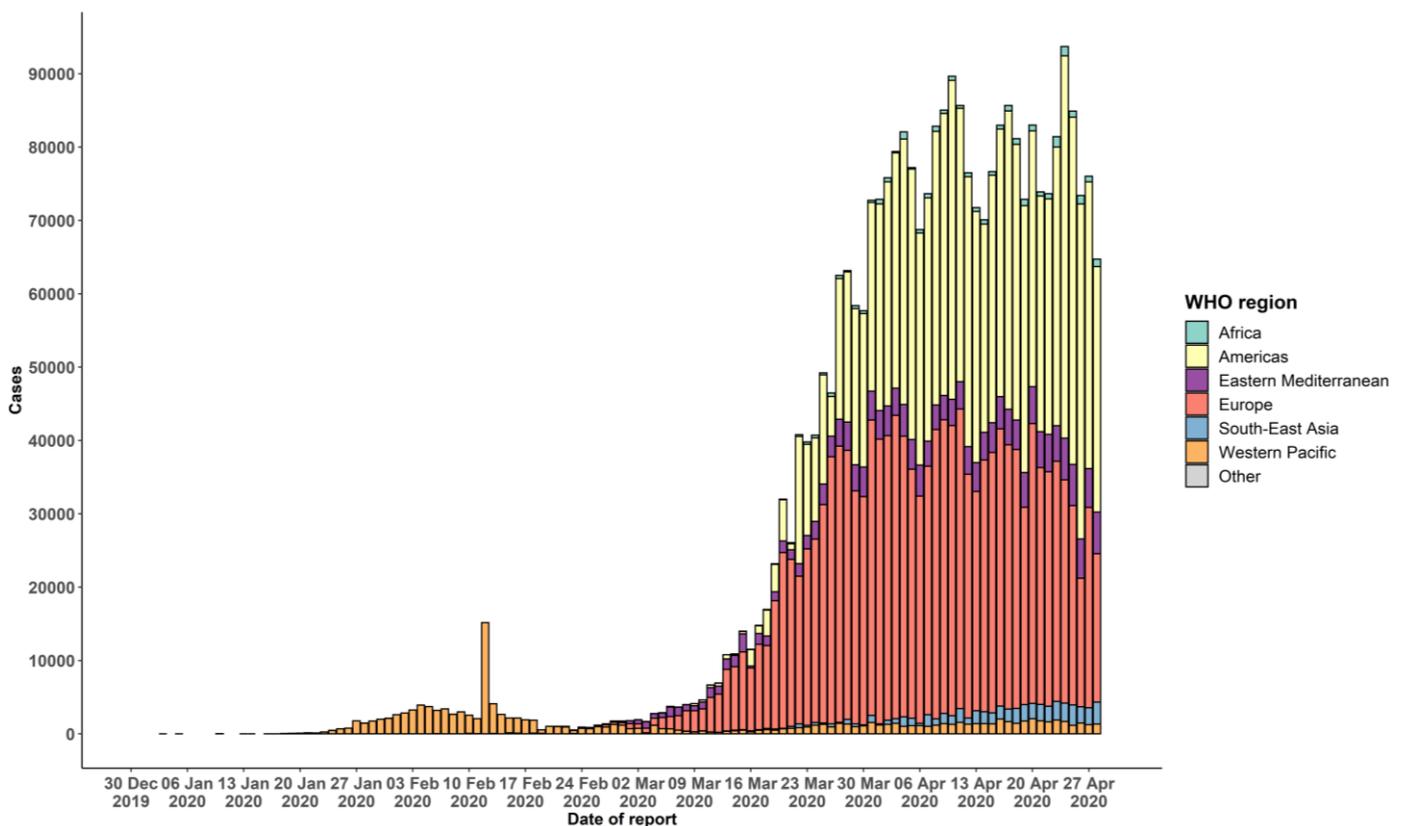
STRATEGIC OBJECTIVES

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.

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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.
  - o 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:
  - o 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);

- o Clinical care for Severe Acute Respiratory Infection (SARI) (available in [English](), [French](), [Russian](), [Spanish](), [Indonesian](), [Portuguese]() and [Vietnamese]());
- o Health and safety briefing for respiratory diseases – ePROTECT (available in [Arabic](), [Chinese](), [English](), [French](), [Russian](), [Spanish](), [Indonesian]() and [Portuguese]());
- o Infection Prevention and Control for COVID-19 (available in [Chinese](), [English](), [French](), [Russian](), [Spanish](), [Indonesian](), [Italian](), [Japanese](), [Macedonian](), [Portuguese](), [Serbian]() and [Turkish]());
- o COVID-19 operational planning guidelines and partners platform to support country preparedness and response (available in [Chinese](), [English](), [French](), [Russian](), [Indonesian]() and [Portuguese]());
- o SARI treatment facility design (available in [Arabic](), [English](), [Italian]() and [Portuguese]());
- o An introduction to Go.Data – field data collection, chains of transmission and contact follow-up (available in [English]() and coming soon in additional languages);
- o How to put on and remove personal protective equipment (PPE) for COVID-19 (available in [English]() and coming soon in additional languages); and
- o 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 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 [Protection measures for persons who are in or have recently visited (past 14 days) areas where COVID-19 is spreading]()).

CASE DEFINITIONS

WHO periodically updates the [Global Surveillance for human infection with coronavirus disease (COVID-19)]() 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 equipment[1]; 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.

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[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