

Coronavirus Disease – COVID-19

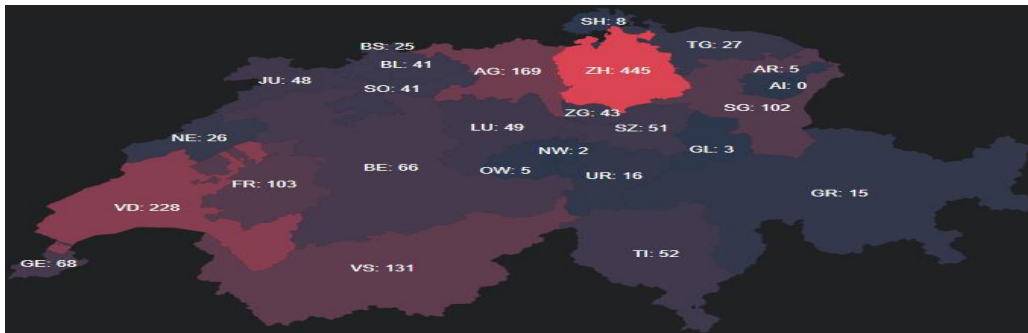
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- The death toll from the coronavirus outbreak is over 559,143 worldwide, with the highest number of deaths in USA (136,024) and Brazil (69,316). There have been more than 12,478,294 global cases in 210 countries and territories.
- The WHO warned that the pandemic was accelerating and noted that infections have doubled in the last six weeks to more than 12 million. It is also setting up an independent panel to review its response to the outbreak.
- The WHO has acknowledged there is “emergin evidence” that Covid-19 could be spread through particles in the air. Professor Benedetta Allegranzi, technical lead for infection prevention and control, said the possibility of airborne transmission in “crowded, closed, poorly ventilated” settings could not be ruled out. Published in the Clinical Infectious Diseases journal, the letter’s signatories call on health officials to update the current guidelines from the WHO to include measures which would mitigate the risk of airborne transmission. While hand washing and social distancing are appropriate, the signatories say they are “insufficient” in providing protection from “*virus-carrying respiratory microdroplets*” released into the air by those with Covid-19. According to the group, measures that should be taken include providing sufficient ventilation, to minimize recirculating air, and avoiding overcrowding, particularly on public transport. *“The major way in which that this virus is transmitted is through droplets which come out when you cough, sneeze or even shout. But there does seem to be the possibility that very small particles containing virus can move further. It is certainly part of the puzzle. The key question is just how important is it,”* said Dr David Nabarro, a special envoy to the WHO on Covid-19.
- Basel scientists have confirmed that the malaria drug hydroxychloroquine and the HIV medication lopinavir do not work against Covid-19. The concentration of the two drugs in the lungs is not sufficient to fight the virus. The University of Basel and the University Hospital Basel started to monitor a range of diagnostic means and potential treatments for Covid 19, including the use of hydroxychloroquine and lopinavir/ritonavir. In particular, the research group investigated how the virus-induced inflammation affected the concentration of lopinavir and hydroxychloroquine in the blood. Scientists also worked out how high the concentration of both drugs must have been in the lungs - the main infected area for Covid-19. Results strongly suggested that it was unlikely that both drugs reached sufficient concentrations to inhibit the virus replication in the lung.
- Autopsies on people who died of the coronavirus are helping doctors understand how the disease affects the body -- and one of the most remarkable findings concerned blood clotting, a pathologist says. Some Covid-19 patients are known to develop blood clotting issues, but the degree and the extent to which that occurs was described as “dramatic” by Dr. Amy Rapkiewicz, the chairman of the department of pathology at NYU Langone Medical Center. In the early stages of the pandemic, bedside clinicians noticed a lot of blood clotting “in lines and various large vessels,” she said. *“What we saw at autopsy was sort of an extension of that. The clotting was not only in the large vessels but also in the smaller vessels. And this was dramatic, because though we might have expected it in the lungs, we found it in almost every organ that we looked at in our autopsy study,”* she said. Rapkiewicz's study outlining her findings was published at the end of June in The Lancet journal EClinicalMedicine.

Countries	Deaths	Cases	Recovered
USA	136,024	3,242,086	1,426,645
Brazil	69,316	1,762,263	1,185,596
UK	44,650	288,133	N/A
Italy	34,938	242,639	194,273
Mexico	33,526	282,283	172,230
France	29,979	170,094	78,170
Spain	28,401	300,136	N/A
India	22,122	818,647	513,503
Iran	12,447	252,720	215,015
Peru	11,314	316,448	207,802
Russia	11,017	713,936	489,068
Belgium	9,781	62,357	17,179
Germany	9,126	199,257	183,600
Canada	8,749	106,805	70,574
Chile	6,682	306,216	274,922
Netherlands	6,136	50,840	N/A
Sweden	5,500	74,333	N/A
Turkey	5,300	209,962	190,390
Ecuador	4,900	64,221	29,184
Pakistan	5,058	243,599	149,092
China	4,634	83,585	78,609
Colombia	4,714	133,973	56,272
Egypt	3,617	79,254	22,753
Indonesia	3,469	72,347	33,529
South Africa	3,720	238,339	113,061
Iraq	2,960	72,460	41,380
Bangladesh	2,275	178,443	86,406
Saudi Arabia	2,151	226,486	163,026
Switzerland	1,966	32,690	29,400
Romania	1,847	31,381	21,129
Ireland	1,743	25,565	23,364
Portugal	1,646	45,679	30,350
Argentina	1,749	90,693	38,984
Poland	1,562	37,216	26,048
Bolivia	1,638	44,113	13,354
Philippines	1,360	52,914	13,230
Ukraine	1,345	52,043	24,800
Japan	981	20,371	17,466
Algeria	988	17,808	12,637
Guatemala	1,092	26,658	3,797
Afghanistan	971	34,194	20,882
Dominican Republic	864	41,915	20,830
Panama	839	42,216	20,437
Austria	706	18,709	16,808
Nigeria	689	30,748	12,546
Honduras	704	26,384	2,779
Sudan	649	10,204	5,277
Denmark	609	12,946	12,077
Moldova	635	18,924	12,188
Hungary	593	4,223	2,941
Armenia	546	30,903	18,709
Belarus	454	64,604	54,254
Kuwait	383	53,580	43,214
Czechia	352	13,001	8,208
North Macedonia	368	7,777	3,960
Yemen	361	1,356	619
Israel	350	35,631	18,542
Finland	329	7,279	6,800
UAE	330	54,050	43,969
Serbia	370	17,728	13,651
Cameroon	359	14,916	11,525
S. Korea	288	13,338	12,065
Azerbaijan	292	22,990	14,093
Norway	252	8,968	8,138
Bulgaria	262	6,672	3,229
Morocco	243	15,194	11,705
El Salvador	249	9,142	5,428
Oman	244	53,614	34,225
Bosnia and Herzegovina	216	6,402	3,037
Greece	193	3,732	1,374
Kazakhstan	264	54,747	35,137
DRC	189	7,905	3,513
Kenya	181	9,448	2,733

Qatar	146	102,630	98,233
Senegal	145	7,882	5,311
Mauritania	144	5,126	2,026
Ghana	129	23,463	18,622
Malaysia	121	8,696	8,511
Mali	120	2,370	1,621
Haiti	130	6,582	2,459
Croatia	117	3,532	2,377
Slovenia	111	1,793	1,429
Luxembourg	110	4,777	4,086
Australia	106	9,359	7,576
Ethiopia	120	6,973	2,430
Bahrain	103	31,528	26,520
Kyrgyzstan	122	9,358	3,134
Somalia	92	3,038	1,209
Cuba	86	2,403	2,244
Nicaragua	91	2,846	1,993
Albania	85	3,278	1,875
Lithuania	79	1,861	1,569
Ivory Coast	79	11,750	5,752
Chad	74	873	788
Estonia	69	2,013	1,894
Niger	68	1,097	976
Venezuela	80	8,372	2,544
Sierra Leone	63	1,598	1,123
Thailand	58	3,202	3,087
Djibouti	56	4,955	4,671
Tajikistan	54	6,410	5,067
Burkina Faso	53	1,005	862
Andorra	52	855	803
Equatorial Guinea	51	3,071	842
Tunisia	50	1,240	1,067
CAR	52	4,200	1,142
Channel Islands	47	577	512
Gabon	46	5,871	2,682
Congo	47	1,821	525
San Marino	42	699	656
South Sudan	38	2,021	333
Liberia	47	963	400
Uzbekistan	53	11,857	7,335
Lebanon	36	2,011	1,368
Nepal	35	16,649	8,011
Guinea	36	5,881	4,672
Mayotte	37	2,702	2,480
Madagascar	34	4,143	2,183
Libya	38	1,342	307
Zambia	42	1,895	1,348
Latvia	30	1,165	1,019
Slovakia	28	1,870	1,481
Uruguay	29	977	878
Singapore	26	45,614	41,780
Guinea-Bissau	25	1,790	760
Isle of Man	24	336	312
New Zealand	22	1,542	1,497
Benin	23	1,285	333
Tanzania	21	509	183
Costa Rica	25	6,485	2,023
Paraguay	20	2,638	1,229
Malawi	29	1,984	369
Cyprus	19	1,010	839
Angola	22	396	117
Palestine	27	5,551	536
Cabo Verde	18	1,552	730
French Guiana	22	5,558	2,555
Georgia	15	973	846
Togo	15	704	483
Guyana	16	286	125
Sint Maarten	15	78	63
Montenegro	19	1,019	320
Suriname	17	699	456
Syria	16	394	126

- A two-drug cocktail used to treat hepatitis C may also help patients recover more quickly from coronavirus, researchers reported yesterday. Three small studies involving 176 patients show the combination of the two drugs, sofosbuvir and daclatasvir, may have hastened the recovery of patients hospitalized with coronavirus, Andrew Hill of Liverpool University told the International AIDS Society's Covid-19 Conference. After two weeks of treatment, 94% of the patients given the two-drug combination were significantly better on a seven-point scale, compared to 70% of those not given the drugs, Hill said at a news conference. The studies were conducted in Iran, where the drug combination is widely used to treat hepatitis C patients. Hill said the studies were not the carefully controlled trials that doctors prefer to see before they adopt a new treatment.
- A new study from Italy suggests that coronavirus can cross the placenta from a pregnant woman to her fetus. Two babies born to women infected with Covid-19 were born infected themselves, Claudio Fenizia of the University of Milan and colleagues reported at a conference organized by the International AIDS Society. They studied 31 women infected with coronavirus who were in late pregnancy during the height of the coronavirus pandemic in Italy. Two of the newborns had positive tests at birth, they reported. *"Our result strongly suggests and support that vertical transmission occurred in two cases out of the 31 studied,"* Fenizia said. *"The virus was found in an at-term placenta and in the umbilical cord blood, in the vagina of a pregnant woman and in milk,"* the researchers wrote in a summary of their work. *"This is the first ringing bell that should raise awareness about a topic that is not really well studied,"* Fenizia said.
- "Two WHO experts are currently en route to China, to meet with fellow scientists and learn about the progress made in understanding the animal reservoir for COVID - 19 and how the disease jumped between animals and humans, tweeted WHO today on twitter.



• Funding opportunity for researchers

PRACE (Partnership for Advanced Computing in Europe) Fast Track Call for Proposals

- <https://prace-ri.eu/prace-support-to-mitigate-impact-of-covid-19-pandemic/>

The US Congressionally Directed Medical Research Program - a call for proposals on COVID-19

- <https://ebrap.org/eBRAP/public/ProgramFY.htm?programFYId=256400>

Fast Funding for COVID-19 Science - Applications are paused

- <https://fastgrants.org/>

Anyone submitting to US (NIH, DoD) or EU Horizon 2020 calls can contact the Grants Office for support: grantsoffice@research.unibe.ch. The Grants Advisors responsible for the ISPM are Aline Schögler (aline.schoegler@research.unibe.ch) and Leah Witton (leah.witton@research.unibe.ch).

Sources

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