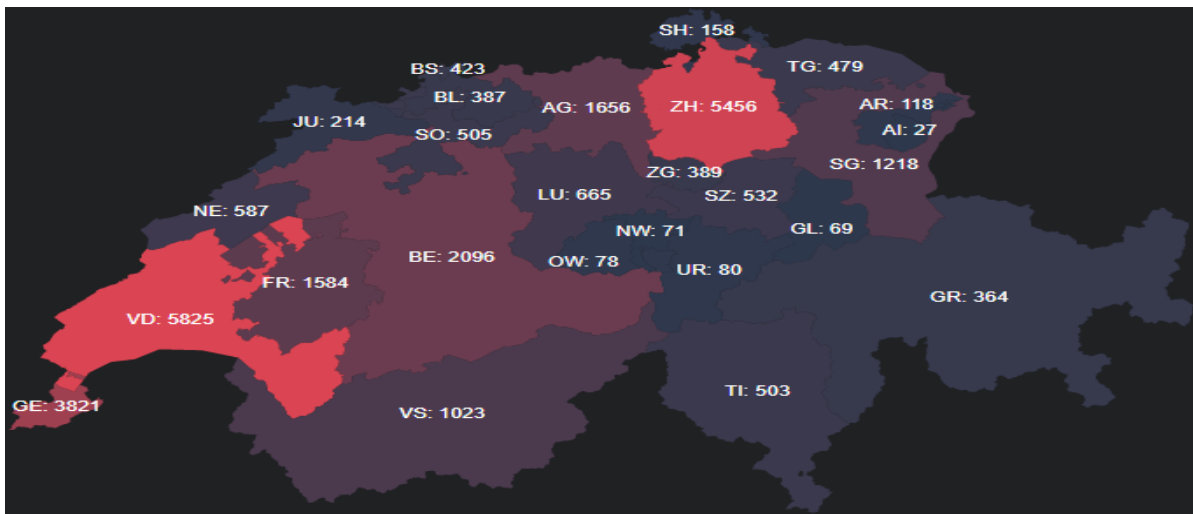# Coronavirus Disease – COVID-19
09.10.2020

- The death toll from the coronavirus outbreak is over 1,068,115 worldwide, with the highest number of deaths in USA (217,829) and Brazil (149,034). There have been more than 36,835,253 global cases in 210 countries and territories. [1]

- The WHO has said European countries will need to "move beyond biomedical science" to overcome Covid-19 as "pandemic fatigue" and new infections rapidly rise across the continent. Hans Kluge, the WHO's Europe director, said that while fatigue from months of uncertainty and disruption was measured differently in different countries, aggregated survey data from across the region suggested that in some cases it had reached levels of over 60%. Medical science alone would not be enough to get through the crisis, he warned, with authorities needing the "courage and empathy" to listen properly to the public and develop policies based on a better understanding of people's needs and behaviours. *"Covid-19 is urging us to move beyond biomedical science in our response,"* Kluge said. *"We have an opportunity to maximise our community insights into behaviour, to integrate real community participation into public health policy."* [2]

- The world recorded its highest number of daily Covid-19 cases since the pandemic began on Thursday, according to the WHOorld Health Organization, and a second wave of the virus in Europe is fueling the surge. As a region, Europe is now reporting more daily infections than the United States, Brazil, and India -- the countries that have been driving the global case count for months. The continent recorded 97,800 new cases on Thursday, according to WHO. Widening outbreaks in European countries such as France, Austria, Romania and the Czech Republic are contributing to the spike. [3]

- Eight in ten of those infected with coronavirus do not have any of the main symptoms, a major study has revealed. It also showed that more than three quarters have no symptoms whatsoever. Scientists said the findings show testing strategies must be changed to pick up 'silent' infections in those who may be unwittingly spreading the virus. The researchers at University College London found that 6 per cent of individuals who become infected do not have a fever, cough or loss of smell when they test positive. The study used data from 36,061 volunteers tested by the Office for National Statistics coronavirus infection survey. Of those who had a positive test result, less than a quarter had any symptoms on the day they were swabbed. And just 14 per cent had one of the three main signs. The study, published in the journal Clinical Epidemiology, concluded: 'Covid-19 symptoms are a poor marker of infection. 'To capture "silent" transmission … test programmes should involve frequent and widespread testing of all individuals, not just symptomatic cases, at least in high-risk settings or specific locations where many people work or live close together such as meat factories or university halls.' Lead author Professor Irene Petersen said: *'You may have a lot of people who are not self-isolating because they didn't know that they are positive.'* Students should be tested regularly, she said, adding: *'I think you could seed a lot of new infections around Christmas – you're in doors, you sit around the table.'* [4]

- China has officially signed an agreement to join the World Health Organization-led COVAX facility, a global COVID-19 vaccine project to ensure poorer countries have access to life-saving vaccines. COVAX aims to develop at least three safe and effective vaccines that can be made available to those participating in the scheme. [5]

Countries	Deaths	Cases	Recovered
USA	217,829	7,839,439	5,026,381
Brazil	149,034	5,029,539	4,414,564
India	106,552	6,908,603	5,906,069
Mexico	83,096	804,488	583,603
UK	42,592	561,815	N/A
Italy	36,083	338,398	236,363
Peru	33,098	838,614	728,216
France	32,521	671,638	100,306
Spain	32,688	884,381	N/A
Iran	28,098	492,378	401,379
Colombia	27,331	886,179	777,658
Russia	22,257	1,272,238	1,009,421
Argentina	22,710	856,369	684,844
South Africa	17,408	686,891	618,771
Chile	13,220	477,769	450,297
Ecuador	12,141	145,045	120,511
Indonesia	11,677	324,658	247,667
Belgium	10,126	143,596	19,981
Germany	9,672	317,238	269,500
Canada	9,557	175,559	147,508
Iraq	9,735	397,780	328,097
Turkey	8,667	330,753	290,352
Bolivia	8,228	137,969	99,812
Pakistan	6,552	317,595	302,708
Netherlands	6,544	161,781	N/A
Egypt	6,017	104,156	97,524
Sweden	5,894	98,451	N/A
Philippines	6,152	334,770	275,307
Bangladesh	5,477	375,870	289,912
Romania	5,299	148,886	114,792
Saudi Arabia	4,996	338,539	324,282
China	4,634	85,521	80,681
Ukraine	4,779	250,538	110,650
Guatemala	3,347	96,480	84,738
Poland	2,919	116,338	77,875
Panama	2,463	118,054	94,391
Honduras	2,477	81,672	31,089
Morocco	2,486	142,953	120,275
Dominican Republic	2,163	116,872	92,567
Switzerland	2,088	60,368	48,400
Portugal	2,062	83,928	52,164
Ireland	1,817	40,086	23,364
Algeria	1,783	52,658	36,958
Kazakhstan	1,746	108,561	103,758
Israel	1,879	286,646	225,189
Japan	1,613	87,020	80,227
Afghanistan	1,472	39,693	33,058
Moldova	1,424	59,915	43,008
Ethiopia	1,262	81,797	36,434
Nigeria	1,113	59,841	51,551
Kyrgyzstan	1,077	48,617	44,097
Armenia	1,010	55,087	45,528
Oman	1,009	104,129	91,731
Costa Rica	1,040	84,828	51,782
Australia	897	27,229	24,972
Bosnia and Herzegovina	926	29,917	23,241
Paraguay	1,012	47,316	29,976
El Salvador	881	29,951	24,995
Belarus	885	82,471	76,543
Sudan	836	13,670	6,764
Bulgaria	880	23,259	15,563
Austria	842	53,188	42,039
Hungary	913	35,222	9,202
Serbia	761	34,517	31,536
North Macedonia	781	20,163	16,009
Kenya	751	40,178	31,710
Czechia	869	100,757	51,160

Denmark	665	31,638	25,502
Venezuela	678	81,019	72,196
Kuwait	649	110,076	102,024
Azerbaijan	605	41,519	39,129
Yemen	593	2,050	1,329
Libya	621	41,368	23,453
Nepal	600	100,676	73,023
Uzbekistan	498	60,342	57,221
UAE	442	104,004	94,903
Cameroon	423	21,203	20,117
S. Korea	428	24,476	22,569
Greece	430	21,381	9,989
Albania	411	14,899	9,215
Lebanon	439	49,744	21,760
Myanmar	566	23,906	6,738
Finland	346	11,580	8,500
Zambia	335	15,301	14,365
Palestine	367	43,664	36,922
Senegal	313	15,213	13,136
Ghana	306	46,964	46,310
Croatia	313	19,446	16,695
Norway	275	15,294	11,863
DRC	276	10,822	10,242
Tunisia	409	26,899	5,032
Bahrain	266	74,422	69,854
Madagascar	237	16,676	15,975
Haiti	230	8,854	7,013
Zimbabwe	229	7,951	6,446
Qatar	219	127,600	124,559
Syria	215	4,566	1,212
Angola	208	5,958	2,635
Malawi	180	5,809	4,626
Montenegro	191	13,004	9,154
Mauritania	162	7,540	7,227
Slovenia	165	7,872	4,842
Nicaragua	153	5,264	4,225
Malaysia	152	14,722	10,707
Mali	131	3,235	2,506
Luxembourg	129	9,219	7,973
Namibia	127	11,781	9,759
Cuba	123	5,917	5,371
Ivory Coast	120	19,982	19,626
Jamaica	128	7,273	2,732
Gambia	117	3,621	2,489
Eswatini	113	5,632	5,231
Hong Kong	105	5,170	4,906
Suriname	106	5,004	4,794
Somalia	99	3,745	3,010
Bahamas	102	4,713	2,607
Lithuania	103	5,758	2,722
Congo	89	5,089	3,887
Chad	89	1,262	1,098
Equatorial Guinea	83	5,062	4,894
Guyana	98	3,329	2,165
Liberia	82	1,360	1,245
Jordan	144	21,517	5,777
Uganda	85	9,442	5,781
Tajikistan	79	10,137	8,959
Trinidad and Tobago	86	4,963	3,076
Sierra Leone	72	2,293	1,721
Niger	69	1,201	1,122
French Guiana	69	10,128	9,799
Guinea	68	10,901	10,232
Estonia	68	3,809	2,906
Mozambique	68	9,639	6,911
CAR	62	4,853	1,914
Cabo Verde	71	6,717	5,821
Djibouti	61	5,423	5,355
Thailand	59	3,628	3,441
Burkina Faso	60	2,241	1,506

- A surge in demand for flu shots in Chinese cities has caused shortages, long lines and triple markups on vaccines by scalpers selling them online. Residents, afraid of the possibility of catching both the flu and Covid-19 – what some have called a "twindemic", have rushed to clinics since China began its flu vaccine campaign in September. Chinese health authorities advised residents to get shots for the flu, whose symptoms are similar to early-stage Covid-19 and could complicate efforts to contain the virus this winter. Officials have also said that Covid-19 combined with the flu could raise mortality rates. [2]

- A recent study revealed that around 10% of hospitalised Covid-19 patients develop blood clots, however, it is unclear why the virus causes this reaction. In the most severe cases, the blood clots can result in a stroke. To investigate this phenomenon and other Covid-19 infections, EPFL scientists have developed a microfluidic chip that models the human lung and replicates part of its structure. The chip holds lung epithelial cells, blood-vessel cells and immune-system cells, and lets scientists directly observe how the virus attacks human cells and triggers the formation of blood clots. [6]

- The number of new positive cases in Switzerland has increased in recent weeks. Today, the authorities reported a record daily number of new coronavirus infections (1,487). Given this increase, the health minister has called on the public to "get their act together" and respect social distancing and basic hygiene measures, including at home. [6]

Newly reported cases since 01.06 in Switzerland. [7]

- **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

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).

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