**To:** (10)(2e) [(10)(2e)@rivm.nl]
**From:** (10)(2e)
**Sent:** Thur 6/25/2020 9:09:38 AM
**Subject:** RE: ProMED Digest, Vol 96, Issue 68
**Received:** Thur 6/25/2020 9:09:00 AM

Dank voor het doorsturen steeds (10)(2e). Ik lees alles en zet een samenvatting in koepelcasus van crios. Thanx!!

(10)(2e)
Arts M&G (10)(2e) profiel Infectieziektebestrijding KNMG
.....
Centrum Infectieziektebestrijding (Cib)
Landelijke Coordinatie Infectieziektebestrijding (LCI)
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.....
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-----Oorspronkelijk bericht-----
Van: (10)(2e) <(10)(2e)@rivm.nl>
Verzonden: zondag 21 juni 2020 16:07
Aan: (10)(2e) <(10)(2e)@rivm.nl>
Onderwerp: FW: ProMED Digest, Vol 96, Issue 68

Ter info, groet, (10)(2e)

-----Original Message-----
From: (10)(2e)@promedmail.org <(10)(2e)@promedmail.org> On Behalf Of (10)(2e)@promedmail.org
Sent: zondag 21 juni 2020 11:45
To: (10)(2e)@promedmail.org
Subject: ProMED Digest, Vol 96, Issue 68

Today's Topics:

1. PRO/AH/EDR> COVID-19 update (274): meat plants, immunity, global, WHO ((10)(2e)@promedmail.org)

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Message: 1
Date: Sun, 21 Jun 2020 09:37:45 +0000
From: (10)(2e)@promedmail.org
Subject: PRO/AH/EDR> COVID-19 update (274): meat plants, immunity, global, WHO
To: (10)(2e)@promedmail.org, (10)(2e)@promedmail.org, (10)(2e)@promedmail.org
Message-ID:
<(10)(2e)@email.amazonses.com>

Content-Type: text/plain; charset=UTF-8

CORONAVIRUS DISEASE 2019 UPDATE (274): MEAT PLANTS, IMMUNITY, GLOBAL, WHO
**********
A ProMED-mail post
<http://www.promedmail.org>
ProMED-mail is a program of the
International Society for Infectious Diseases <http://www.isid.org>

In this update:
[1] UK: meat-processing plant outbreak
[2] Immunity studies

[3] Weak immune response in asymptomatic cases [4] WHO situation report 152 (as of 20 Jun 2020) [5] Global update: Worldometer accessed 20 Jun 2020 17:50 GMT

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[1] UK: meat-processing plant outbreak
Date: Fri 19 Jun 2020
Source: The Telegraph [edited]
<https://www.telegraph.co.uk/global-health/science-and-disease/revealed-meat-processing-plants-ideal-incubator-coronavirus/>

As Europe sees the number of cases of the coronavirus start to fall, we are likely to see an increase in the number of small outbreaks -- or clusters -- of the disease. These clusters have been seen in a food market in Beijing, a nightclub in South Korea, and a dormitory for migrant workers in Singapore. In the UK we may be beginning to see the first evidence of this with the emergence of 3 separate COVID-19 clusters at meat-processing factories in England and Wales.

Health secretary Matt Hancock announced the news of an outbreak at the Kober meat-processing plant in Cleckheaton, West Yorkshire, at the Downing Street press briefing on Thursday [18 Jun 2020]. The plant, owned by Asda, announced it was to close after it emerged some 150 staff have tested positive for the disease. The news came as it was confirmed that staff at the 2 Sisters chicken-processing plant on Anglesey, North Wales, have been asked to self-isolate for 2 weeks after 58 cases of coronavirus were found among its 560-strong workforce. And in Wrexham, 38 staff out of 1500 at the Rowan Foods factory tested positive for the virus; however, this outbreak is believed to reflect transmission of the disease in the surrounding area, rather than spread within the production facility.

But such outbreaks are not a UK phenomenon: 650 staff at a slaughterhouse in Germany have tested positive for the disease, and there have been 2 outbreaks in France. Outbreaks in meat-processing plants have been common features of the pandemic, with research by the London School of Hygiene and Tropical Medicine (LSHTM) showing that after ships and workers' dormitories, food-processing factories have been responsible for the biggest localised outbreaks. At a fish-processing plant in Ghana, there were 534 cases of the disease, and a meat-processing plant in Sioux Falls, South Dakota, in the US saw 518 infections.

According to a report by the Centers for Disease Control and Prevention (CDC) last month [May 2020], an estimated 5000 people working in meat-processing plants have tested positive for the coronavirus in the US, and one analysis estimated that half of the cases of the disease in the United States could be traced back to these production facilities. According to a CDC investigation, there are various factors at play that make meat-processing plants ideal breeding grounds for the virus. The report found that working practices make it difficult for employees to maintain physical distance, particularly if they work on production lines. And social distancing is also difficult to maintain in break rooms, so some factories have set up outside rest areas. The pace and physical demands of factory work also make it hard for workers to wear face coverings, with CDC observers noticing that workers tended to cover just their mouths, not their noses, and frequently readjusted their masks.

Professor (10)(2e), researcher in infection dynamics and control of diseases at the University of Cambridge, said the speed of production lines made the spread of infection more likely. "If we do see outbreaks in slaughterhouses, one issue could be the challenges of avoiding close working between individuals on fast-moving slaughter lines and the substantial air movement that exists in and across many slaughterhouses and meat plants," he said.

The LSHTM paper hypothesises that the noise in factories also means that workers have to either stand close to each other when talking or shout, which can increase the projection of viral particles. There are also socioeconomic factors. CDC noted that in one factory, 40 different languages were spoken, so communicating information about social distancing and safe working practices was difficult. Workers also travelled to work together, either on buses or in car shares, enabling the virus to spread even further. Employees were also more likely to live in crowded, multi-generational households, facilitating the spread of the disease to older, more at-risk individuals. The precarious working conditions of factory workers may also be a factor.
If they are on zero-hours contracts or, in the US, do not have medical insurance, they may be unwilling to take sick leave.

Prof Wood added, "If the outbreaks are large, that might suggest that there may be continued transmission in some plants, raising the question of whether people are coming to work when unwell." Calum Semple, professor of child health and outbreak medicine at the University of Liverpool, says that the biggest factor encouraging the spread of COVID-19 in such settings is likely to be the environment. Such facilities are cold and lack natural light. "If I wanted to preserve a virus, I would put it in a cold, dark environment or a cool environment that doesn't have any ultraviolet light, essentially a fridge or a meat-processing facility," he said. "If you have a cold nose, that will help the virus take hold. And when you shout, you produce more of the virus particle," he added. He said that factories for vegetables or other goods had not seen any outbreaks, so the temperature was likely to be the key factor. "The perfect place to keep a virus alive for a long time is a cold place without sunlight,"
he said.

[byline: Anne Gulland]

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[2] Immunity studies

Date: Thu 18 Jun 2020
Source: Newsweek [edited]
<https://www.newsweek.com/coronavirus-antibodies-lost-10-wuhan-study-patients-within-21-days-1511850>

Chinese scientists have cast doubt over whether we have long-lasting immunity to the coronavirus in 2 studies released this week, prompting them to question the use of immunity certificates.

The authors of the first study submitted to the pre-print website medRxiv concluded that people are unlikely to have protective antibodies against the coronavirus for long periods of time. As the findings are a pre-print, they have not been through the rigorous peer review process required to publish in scientific journals. Scientists partly release papers this way to prompt debate on a topic.

For the study, the scientists looked for antibodies specific to the coronavirus in the blood samples of 1470 COVID-19 patients in 3 hospitals in Wuhan, China, the original epicentre of the pandemic.
Previous research cited by the authors suggests that antibodies that make up the first line of defense against the coronavirus are detectable around 7 days after a person is infected, while virus-specific antibodies can take around 2 weeks.

Dr Xinghuan Wang of the urology department at Zhongnan Hospital of Wuhan University and colleagues also assessed the blood of 3832 healthcare providers who didn't test positive for the coronavirus from one of the 3 hospitals, as well as 19 555 members of Wuhan's general population, and 1616 non-COVID hospital patients. The participants had coronavirus and antibody tests between 29 Feb to 29 Apr [2020]. On average, COVID-19 patients were tested for antibodies 41 days after they first showed symptoms.

As the coronavirus emerged in Wuhan, the authors worked on the assumption that most healthcare workers who took part in the study were "inevitably" exposed to the bug in the early days of the outbreak, in late November 2019 to 20 Jan 2020, when it was spreading unchecked and they weren't wearing sufficient protective equipment.
The team found that 89% of hospitalized COVID-19 patients had virus-specific antibodies against the coronavirus, compared with 4% of healthcare workers and the general population and 1% of non-COVID patients.

The authors believe the healthcare workers were infected with the coronavirus but produced no long-lasting antibodies against the germ. They backed up their argument by pointing to antibody test studies in countries including the US that suggest between 10 and 80 times more people may have been infected by the coronavirus than are reflected in diagnostic test results. For instance, one study on people in Wuhan found around 10% of the tested population had antibodies to the coronavirus, around 20 times higher than the number of confirmed cases in the city. According to the scientists, the around 10% of COVID-19 patients in their pre-print study who didn't have antibodies 21 days after their symptoms started likely "lost" them after they recovered.

In contrast, patients with severe acute respiratory syndrome (SARS) have been known to carry antibodies for up to 210 days, the researcher said.

The study was limited, the team said, because they did not have long-term data on the recovered COVID-19 patients and whether they retained their antibodies. In addition, antibody tests are not necessarily entirely reliable. They said, "Very few healthcare providers had IgG [virus-specific] antibodies to SARS-CoV-2 [the
COVID-19 coronavirus], though a significant proportion of them had been infected with the virus. After SARS-CoV-2 infection, people are unlikely to produce long-lasting protective antibodies against this virus."

Daniel M Davis, professor of immunology at the University of Manchester, who did not work on the paper, told Newsweek that interpreting the findings is difficult, as much of the team's data comes from a time when the use of personal protective equipment was sparse in these hospitals. "So the researchers interpret their results to mean that because these healthcare workers were very likely exposed to the virus, antibodies may not be produced to a detectable extent in all people infected. This is arguable, because this assumes that transmission rate of the virus was high in this hospital at that time, something which can't easily be tested."

In a separate peer-reviewed piece of research published in the journal Nature Medicine, scientists found that asymptomatic patients appeared to have weaker immune responses than COVID-19 patients who showed symptoms. The study involved 178 COVID-19 patients who were hospitalized even if they didn't have symptoms according to government policy. Of the total, 37 were classed as asymptomatic, as they didn't have any symptoms in the past 14 days or while they were in hospital.
The remaining 141 were mild cases.

Symptomatic patients had significantly higher levels of virus-specific antibodies than the asymptomatic during the period when the virus could still be detected in their respiratory tracts. Eight weeks after the patients were discharged from hospitals, 81% of asymptomatic patients saw levels of their neutralizing antibodies drop compared with 62% of symptomatic patients. "In this study, we observed that IgG [virus-specific] levels and neutralizing antibodies in a high proportion of individuals who recovered from SARS-CoV-2 infection start to decrease within 2-3 months after infection," co-author Ai-Long Huang, of the Key Laboratory of Molecular Biology on Infectious Diseases at China's Chongqing Medical University, and colleagues wrote in the paper.

Based on their respective research, both teams questioned the idea of immunity certificates. The Nature Medicine team said their work and that of others indicate the risks of using COVID-19 'immunity passports' and support the prolongation of public health interventions, including social distancing, hygiene, isolation of high-risk groups, and widespread testing.

Echoing their concerns, the medRxiv researchers said, "As infected people do not develop long-lasting protecting antibodies against SARS-CoV-2, the idea of immune certificate for recovered COVID-19 patients is invalid."

[byline: Kashmira Gander]

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[3] Weak immune response in asymptomatic cases
Date: Fri 19 Jun 2020
Source: Genetic Engineering & Biotechnology News [edited] <https://www.genengnews.com/news/asymptomatic-covid-19-cases-may-have-weaker-immune-responses/>

A SARS-CoV-2 infection can result in a wide spectrum of symptoms, from asymptomatic to gravely ill. The majority of people infected with SARS-CoV-2 experience a mild to severe respiratory illness with symptoms that include fever, cough, and shortness of breath, appearing 2-14 days after exposure. However, other infections remain asymptomatic. Neither the clinical features nor the immune responses of asymptomatic cases have been well described.

The difference in the severity of the disease is a matter of intense research. Some hypotheses (none of which have been proven) concern the amount of virus one initially comes into contact with, potential immunity from previous infections with similar coronaviruses, age and previous health history, or the immune response of the person infected. Now, a small study performed by a group from Chongqing Medical University in Chongqing, China, found that people who fail to develop COVID-19 symptoms may have a weaker immune response to the virus. They also found that people's antibody response to SARS-CoV-2 may diminish rapidly after infection, which may have implications for the interpretation of negative serological results.

The study, which presents a detailed clinical and immunological analysis of 37 asymptomatic patients, is presented in a paper in Nature Medicine [Quan-Xin Long, Xiao-Jun Tang, Qiu-Lin Shi, Qin Li, Hai-Jun Deng, Jun Yuan, et al. Clinical and immunological assessment of asymptomatic SARS-CoV-2 infections. Nat Med. 2020 Jun 18. doi: 10.1038/s41591-020-0965-6. Online ahead of print.].

Ai-Long Huang and colleagues studied 37 asymptomatic individuals from the Wanzhou District who were diagnosed with RT-PCR-confirmed
SARS-CoV-2 infections but without any relevant clinical symptoms in the preceding 14 days and during hospitalization. The authors wrote that "the asymptomatic individuals were admitted to the government-designated Wanzhou People's Hospital for centralized isolation in accordance with policy." Of the 37 asymptomatic patients
-- identified in a group of 178 people with SARS-CoV-2 infection -- 22 were female and 15 were male, with ages ranging from 8-75 years (median age, 41 years).

The authors found that these patients had a significantly longer duration of viral shedding, with median duration of viral shedding of 19 days, compared with 14 days in a group of 37 symptomatic patients.
Levels of virus-specific IgG antibodies were significantly lower in the asymptomatic group than in the symptomatic group during the acute phase of infection, when the virus could be detected in the respiratory tract.

Eight weeks after the patients were discharged from the hospital, antibody levels were measured. Of asymptomatic individuals, 93.3% and 81.1% had a reduction in IgG and neutralizing antibody levels, respectively, during the early convalescent phase, as compared to 96.8% and 62.2% of symptomatic patients.

In addition, asymptomatic patients had lower levels of 18 pro- and anti-inflammatory cytokines. The authors suggest that this indicates that the asymptomatic patients may have had a weaker immune response to SARS-CoV-2 infection.

The authors also observed that IgG levels began to diminish within 2-3 months of infection in a large proportion of the asymptomatic patients, which was determined using a magnetic chemiluminescence enzyme immunoassay test. Indeed, 40% of asymptomatic individuals became seronegative and 12.9% of the symptomatic group became negative for IgG in the early convalescent phase. The authors noted that reduction in IgG and neutralizing antibody levels in the early convalescent phase might have implications for immunity strategy and serological surveys.

They argue that this finding, along with previous analyses of neutralizing antibodies in patients recovering from COVID-19, highlights the potential risks of using "immunity passports" and supports the continuation of public-health interventions and widespread testing. Additional studies of larger groups of symptomatic and asymptomatic patients are urgently needed to determine the duration of antibody-based immunity.

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[While the above 2 studies hint at low and temporary antibody responses to COVID-19 infections, the first round of results from an immunological study of 149 people who have recovered from COVID-19 show that, although the amount of antibodies they generated varies widely, most individuals had generated at least some that were intrinsically capable of neutralizing the SARS-CoV-2 virus (see <https://www.biorxiv.org/content/10.1101/2020.05.13.092619v2>). Too early to speculate whether this helps some individuals respond better to infections, this study does indicate that there are rare but recurring receptor binding domain (RBD) specific antibodies with potent antiviral activity found in all individuals tested, suggesting that a vaccine designed to elicit such antibodies could be broadly effective. - Mod.UBA]

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[4] WHO situation report 152 (as of 20 Jun 2020)
Date: Sat 20 Jun 2020
Source: WHO [abridged, edited]
<https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200620-covid-19-sitrep-152.pdf?sfvrsn=83aff8ee_2>

*The situation report includes information provided by national authorities as of 10:00 CEST, 20 Jun 2020.

Highlights
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- WHO director-general Dr Tedros, in his regular media briefing yesterday [Fri 19 Jun 2020], highlighted that today [Sat 20 Jun 2020] is World Refugee Day and highlighted the risks of COVID-19 for some of the world's most vulnerable people. He also stressed the shared duty to do everything we can to prevent, detect, and respond to transmission of COVID-19 among refugee populations.
- WHO has published "Criteria for releasing COVID-19 patients from isolation", which provides an update to previous guidance. The updated criteria reflect recent findings that patients whose symptoms have resolved may still test positive for the COVID-19 virus for many weeks. Despite this positive test result, these patients are not likely to be infectious and therefore are unlikely to be able to transmit the virus to another person.
- WHO has published an Emergency Global Supply Chain System (COVID-19) catalogue. This catalogue lists all medical devices, including personal protective equipment, medical equipment, medical consumables, single-use devices, laboratory, and test-related devices that may be requested through the COVID-19 Supply Portal.

[Links to all documents mentioned are available at the source URL above. - Mod.UBA]

Surveillance
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[The following data come from the "Situation in numbers" section. The regional case totals are inclusive of China. - Mod.UBA]

WHO region (no. countries/territories): Total confirmed cases (new) / Total deaths (new) Western Pacific Region (19): 203 490 (1001) / 7288 (31) European Region (61): 2 509 750 (18 313) / 192 645 (1726) South-East Asia Region (10): 560 285 (19 244) / 16 814 (454) Eastern Mediterranean Region (22): 878 428 (21 778) / 19 560 (519) Region of the Americas (54): 4 163 813 (71 287) / 215 903 (3386) African Region (49): 208 535 (7357) / 4750 (155) Cases on an international conveyance (Diamond Princess): 712 (0) / 13 (0)

Confirmed cases (new conf cases) / Total deaths (new deaths) Grand total: 8 525 042 (138 980) / 456 973 (6271)

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[The number of countries and territories reporting confirmed cases of
COVID-19 to WHO remains at 215.

In the 24 hours since the last WHO update:
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The Americas region reported 51.3% of the global newly reported cases and 54.0% of newly reported deaths for this 24-hour period. USA reported 32.3% of the newly confirmed cases in the region, Brazil reported 31.9%, Chile 8.8%, Mexico 7.9%, and Peru 4.9%. The same 5 countries remained at the top, with Mexico switching place with Chile.

The European region reported 13.2% of the global newly reported cases and 27.5% of the newly confirmed deaths in the region. Russia reported 43.1% of the regional newly reported cases, followed by the UK 7.3%, Turkey 6.6%, Ukraine 4.6%, Belarus 3.7%, and Germany 3.3%. Again, same countries, minor juggling of orders and percentages day by day.

The Eastern Mediterranean region reported 15.7% of the global newly reported cases and 8.3% of global newly reported fatalities. Pakistan reported 30.3% of the regional newly reported cases followed by Saudi Arabia 19.7%, Iran 12.0%, Egypt 8.1%, Iraq 7.5%, Qatar 4.7%, and Oman 3.9%. Same countries, minor juggling of positions.

The African region reported 5.3% of the global newly reported cases and 2.5% of newly reported fatalities. South Africa reported 52.0% of the newly reported cases in the region in the past 24 hours, followed by Cameroon 10.5%, Nigeria 9.1%, Cote d'Ivoire 5.8%, Ghana 3.7%,

Mauritania 2.7%, Congo DR 2.6%, Senegal 2.2%, Algeria 1.6%, Ethiopia and Kenya 1.6%. While South Africa and Nigeria are consistently numbers 1 and 2 in terms of the 24-hour increase in cases, other countries have less consistent reporting patterns and vary considerably from day to day.

The Western Pacific region reported 0.72% of the global newly reported cases and 0.49% of global deaths. The Philippines reported 65.9% of the newly reported cases in the region, followed by Singapore 14.2%, South Korea 6.7%, Japan 5.9%, and China 2.9%. The outbreak associated with the Beijing Seafood markets continues to bring China to prominence in terms of daily newly confirmed cases. That said, the Philippines and Singapore are consistently numbers 1 and 2, respectively, and the other countries vary in daily reporting, including Malaysia and Australia.

The South East Asia region reported 13.8% of the global newly reported cases and 7.2% of global deaths. India reported 75.4% of newly reported cases in the region, followed by Bangladesh 16.8%, Indonesia 5.4%, and Nepal 2.2%. Same countries, same order as in previous days.

Impression: Europe seems to be stabilizing at a significantly lower rate, although Russia is still reporting 7000+ new cases a day (down from 8000+ per day). The Eastern Mediterranean is on par with the European region, with Pakistan reporting 4000+ cases a day and Saudi Arabia reporting 4000+ cases a day. South East Asia has overtaken both the European and Eastern Mediterranean regions, with India reporting
8000-10 000+ cases a day. The Americas region is reporting around 70
000 cases a day, with Brazil usually reporting 25 000-30 000+ cases a day and the USA at 20 000-25 000+ a day. In the Africa region, the regional proportion is slowly climbing, with South Africa reporting in the 3000-4000+ range daily, and in the Western Pacific region, they are maintaining a very low rate compared with the other regions, with the Philippines averaging 400+ cases per day (Singapore had been reporting twice as many cases per day for a period of time but has dropped back over the past couple of weeks).

Figure 2. Epidemic curve of confirmed COVID-19 cases, by date of report and WHO region, 30 Dec 2019 through 20 Jun 2020, at the source URL above, is an excellent representation of the epidemic starting in the Western Pacific, transitioning to multiregional activity as the virus travelled. Europe has significantly decreased. The Americas region continues to increase, as does South East Asia, which overtook the Eastern Mediterranean and European regions today [20 Jun 2020] in terms of daily newly confirmed cases; the African region is noticeably increasing as well. The Americas region continues to greatly outnumber all other regions for daily reporting. - Mod.UBA]

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[4] Global update: Worldometer accessed 20 Jun 2020 17:50 GMT
Date: Sat 20 Jun 2020
Source: Worldometer [edited]
<https://www.worldometers.info/coronavirus/>

[This table is included as the numbers are constantly changing at Worldometer, and I want to make sure that the data are "frozen in time" for those who wish to see the global data. - Mod.UBA]

Confirmed cases Start of data recording: 1st data / ... / 1 Mar 2020 / ... / 1 Apr 2020 / ... / 1 May 2020 / ... / 1 Jun 2020 / ... / 14 Jun 2020 / 15 Jun 2020 / 16 Jun 2020 / 17 Jun 2020 [updated for access time consistency] / 18 Jun 2020 / 19 Jun 2020 / Country

Countries with marked decreases in daily newly confirmed cases post major activity
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2 Feb 2020: 17 187 / ... / 80 (10)(2e) 875 / ...
/ 83 (10)(2e) 221 / 83 265 / 83 293 / 83 325 / 83 352 /
83 352 / Mainland China
2 Feb 2020: 15 / ... / 3726 / ... / 9976 / ... / 10 780 / ... / 11 541 / ... / 12 121 / 12 155 / 12 198 / 12 257 / 12 306 / 12 373 / 12 373 / South Korea

Countries with major activity (more than 5000 cases with community
spread)
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2 Feb 2020: 11 / ... / 76 / ... / 215 (10)(2e) / ... / 1
837 170 / ... / 2 162 144 / 2 182 950 / 2 208 400 / 2 234 471 / 2 263
651 / 2 297 190 / 2 314 101 / USA
26 Feb 2020: 1 / ... / 2 / ... / 6931 / ... / 92 109 / ... / 514 849 / ... / 867 882 / 891 556 / 928 834 / 960 309 / 983 359 / 1 (10)(2e)
(10)(2e) 168 / Brazil
2 Feb 2020: 2 / ... / 2 / ... / 2777 / ... / 114 431 / ... / 405 843 / ... / 528 964 / 537 210 / 545 458 / 553 301 / 561 091 / 569 063 / 576
952 / Russia
2 Feb 2020: 2 / ... / 3 / ... / 1998 / ... / 37 257 / ... / 190 609 / ... / 333 008 / 343 026 / 354 161 / 367 264 / 381 091 / 395 812 / 407
689 / India
2 Feb 2020: 2 / ... / 36 / ... / 29 474 / ... / 177 454 / ... / 274
762 / ... / 295 889 / 296 857 / 298 136 / 299 251 / 300 469 / 301 815 / 303 110 / UK
2 Feb 2020: 1 / ... / 84 / ... / 104 119 / ... / 242 988 / ... / 286
509 / ... / 291 008 / 291 189 / 291 408 / 291 763 / 292 348 / 292 655 / 293 018 / Spain
6 Mar 2020: 1 / ... / NA / ... / 1323 / ... / 40 459 / ... / 164 476 / ... / 229 736 / 232 992 / 237 156 / 240 908 / 244 388 / 247 925 / 247
925 / Peru

2 Feb 2020: 2 / ... / 1694 / ... / 110 574 / ... / 207 428 / ... / 232
997 / ... / 236 989 / 237 290 / 237 500 / 237 828 / 238 159 / 238 011 / 238 275 / Italy
3 Mar 2020: 1 / ... / NA / ... / 3031 / ... / 17 008 / ... / 99 688 / ... / 174 293 / 179 436 / 184 449 / 184 449 / 225 103 / 231 393 / 236
748 / Chile
19 Feb 2020: 2 / ... / 978 / ... / 47 593 / ... / 95 646 / ... / 151
466 / ... / 187 427 / 189 876 / 192 439 / 195 051 / 197 647 / 200 262 / 202 584 / Iran
2 Feb 2020: 10 / ... / 130 / ... / 77 981 / ... / 164 077 / ... / 183
494 / ... / 187 671 / 188 044 / 188 382 / 190 179 / 190 126 / 190 660 / 190 965 / Germany
11 Mar 2020: 1 / ... / NA / ... / 15 679 / ... / 122 392 / ... / 163
942 / ... / 178 239 / 179 831 / 181 298 / 182 727 / 184 [redacted] 943 / Turkey
26 Feb 2020: 2 / ... / 4 / ... / 2118 / ... / 18 114 / ... / 69 496 / ... / 139 230 / 144 478 / 148 921 / 154 760 / 160 118 / 165 062 / 171
666 / Pakistan
28 Feb 2020: 1 / ... / 5 / ... / 1215 / ... / 20 739 / ... / 90 664 / ... / 142 690 / 150 264 / 154 863 / 159 793 / 165 455 / 170 485 / 170
485 / Mexico
2 Feb 2020: [redacted] / ... / 167 346 / ... / 188
882 / ... / 157 220 / 157 372 / 157 716 / 158 174 / 158 641 / 159 452 / 159 452 / France*
2 Mar 2020: 1 / ... / NA / ... / 1720 / ... / 24 097 / ... / 85 261 / ... / 127 541 / 132 048 / 136 315 / 141 234 / 145 991 / 150 292 / 154
233 / Saudi Arabia
8 Mar 2020: 3 / ... / NA / ... / 54 / ... / 8238 / ... / 47 153 / ...
/ 87 520 / 90 619 / 94 481 / 98 489 / 102 292 / 105 535 / 108 775 / Bangladesh
2 Feb 2020: 4 / ... / 24 / ... / 9731 / ... / 55 [redacted] 787 / 99 147 / 99 467 / 99 853 / 100 220 / 100 629 / 100 959 / Canada
5 Mar 2020: 1 / ... / NA / ... / 1380 / ... / 5951 / ... / 32 683 / ... / 70 [redacted] 334 / 80 412 / 83 890 / 87 715 / 87 715 / South Africa
29 Feb 2020: 1 / ... / 3 / ... / 835 / ... / 14 [redacted] 602 / 80 876 / 82 [redacted] 441 / 85 462 / 86 488 / Qatar
6 Mar 2020: 1 / ... / NA / ... / 1065 / ... / 7006 / ... / 29 383 / ... / 50 939 / 53 [redacted] 276 / 63 276 / Colombia
4 Feb 2020: 1 / ... / 2 / ... / 13 964 / ... / 49 [redacted] 155 / 60 244 / 60 348 / 60 476 / 60 550 / Belgium
28 Feb 2020: 1 / ... / 1 / ... / 163 / ... / 14 917 / ... / 42 556 / ... / 53 973 / 54 680 / 55 369 / 56 [redacted] 333 / 57 936 / Belarus
2 Feb 2020: 1 / ... / 14 / ... / 4947 / ... / 21 520 / ... / 37 542 / ... / 51 614 / 52 383 / 53 323 / 54 562 / 56 [redacted] 043 / Sweden

14 Feb 2020: 1 / ... / 2 / ... / 779 / ... / 5895 / ... / 24 985 / ...
/ 44 598 / 46 289 / 47 856 / 49 219 / 50 437 / 52 211 / 52 211 / Egypt
29 Feb 2020: 1 / ... / 6 / ... / 2758 / ... / 26 336 / ... / 39 [redacted] 322 / 47 943 / 48 490 / 49 [redacted] 731 / Ecuador
27 Feb 2020: 1 / ... / 10 / ... / 13 614 / ... / 39 791 / ... / 46 442 / ... / 48 783 / 48 948 / 49 [redacted] 319 / 49 426 / 49 502 /
Netherlands
2 Mar 2020: 2 / ... / NA / ... / 1677 / ... / 10 551 / ... / 26 473 / ... / 38 277 / 39 294 / 40 400 / 41 431 / 42 762 / 43 803 / 45 029 / Indonesia
2 Feb 2020: 5 / ... / 21 / ... / 814 / ... / 13 [redacted] 294 / 42 636 / 42 982 / 43 364 / 43 752 / 44 145 / 44 533 / United Arab
Emirates
2 Feb 2020: 18 / ... / 106 / ... / 1000 / ... / 17 101 / ... / 34 884 / ... / 40 604 / 40 818 / 40 969 / 41 216 / 41 473 / 41 615 / 41 833 / Singapore
24 Feb 2020: 1 / ... / 45 / ... / 317 / ... / 4377 / ... / 27 [redacted] 431 / 36 958 / 37 533 / 38 [redacted] 145 / Kuwait
2 Mar 2020: 2 / ... / NA / ... / 8251 / ... / 25 351 / ... / 32 500 / ... / 36 690 / 37 [redacted] 672 / 38 [redacted] 841 / Portugal
3 Mar 2020: 1 / ... / NA / ... / 794 / ... / 10 861 / ... / 23 672 / ... / 31 154 / 31 810 / 32 476 / 33 234 / 34 [redacted] 825 / Ukraine
3 Mar 2020: 1 / ... / NA / ... / 2554 / ... / 13 105 / ... / 23 786 / ... / 29 392 / 29 788 / 30 195 / 30 701 / [redacted] 620 / Poland
25 Feb 2020: 1 / ... / 27 / ... / 17 768 / ... / 29 705 / ... / 30 862 / ... / 31 117 / 31 131 / 31 154 / 31 187 / 31 200 / 31 235 / 31 243 /
Switzerland
2 Feb 2020: 2 / ... / 3 / ... / 2311 / ... / 8772 / ... / 18 [redacted] / ...
/ [redacted] 420 / 26 781 / 27 238 / 27 799 / 28 459 / 29 400 / Philippines
1 Mar 2020: 1 / ... / NA / ... / 1284 / ... / 7288 / ... / 17 285 / ... / 22 962 / 23 271 / 23 686 / 24 105 / 24 645 / 25 068 / 25 778 / Dominican
Republic
29 Feb 2020: 1 / ... / 1 / ... / 3447 / ... / 20 833 / ... / 24 990 / ... / 25 303 / 25 321 / 25 334 / 25 341 / 25 355 / 25 368 / 25 373 / Ireland
10 Mar 2020: 1 / ... / NA / ... / 1317 / ... / 6720 / ... / 13 463 / ... / 21 418 / 21 422 / 21 962 / 22 597 / 23 351 / 24 274 / 24 274 / Panama
26 Feb 2020: 1 / ... / 3 / ... / 2460 / ... / 12 567 / ... / 19 257 / ... / 21 999 / 22 165 / 22 415 / 22 760 / 23 [redacted] 730 / Romania
21 Feb 2020: 1 / ... / 10 / ... / 6092 / ... / 16 101 / ... / 17 [redacted] 495 / 19 783 / 20 [redacted] 339 / Israel
2 Feb 2020: 20 / ... / 256 / ... / 2384 / ... / 14 305 / ... / 16 851 / ... / 17 429 / 17 502 / 17 587 / 17 628 / 17 668 / 17 740 / 17 740 / Japan
25 Feb 2020: 2 / ... / 14 / ... / 10 711 / ... / 15 531 / ... / 16 731 / ... / 17 109 / 17 135 / 17 189 / 17 203 / 17 223 / 17 271 / 17 323 / Austria
6 Mar 2020: 1 / ... / NA / ... / 1060 / ... / 9205 / ... / 11 412 / ... / 12 310 / 12 367 / 12 426 / 12 522 / 12 616 / 12 709 / 12 803 / Serbia
27 Feb 2020: 1 / ... / 4 / ... / 3107 / ... / 9311 / ... / 11 669 / ... / 12 193 / 12 217 / 12 250 / 12 294 / 12 344 / 12 391 / 12 391 / Denmark
1 Mar 2020: 3 / ... / NA / ... / 3589 / ... / 7737 / ... / 9268 / ...
/ 10 [redacted] 162 / 10 280 / 10 406 / 10 429 / Czech Republic
2 Mar 2020: 1 / ... / NA / ... / 654 / ... / 4569 / ... / 7807 / ... /
8793 / 8885 / 8931 / 8997 / 9074 / 9613 / 9839 / Morocco
26 Feb 2020: 1 / ... / 19 / ... / 4877 / ... / 7783 / ... / 8440 / ...
/ 8631 / 8647 / 8660 / 8692 / 8708 / 8726 / 8733 / Norway
2 Feb 2020: 8 / ... / 29 / ... / 2908 / ... / 6071 / ... / 7819 / ...
/ 8453 / 8494 / 8505 / 8515 / 8529 / 8535 / 8556 / Malaysia
2 Feb 2020: 12 / ... / 27 / ... / 5105 / ... / 6767 / ... / 7195 / ...
/ 7320 / 7347 / 7370 / 7390 / 7391 / 7409 / 7436 / Australia
2 Feb 2020: 1 / ... / [redacted] / ... / 6859 / ... /
7104 / 7108 / 7112 / 7117 / 7119 / 7133 / 7142 / Finland

[*On 2 Jun 2020, France completed a review of all positive lab tests reported and removed all duplicate tests on individuals who were counted more than once. This led to a decrease in cumulative case counts.
In the table above, NA is "not applicable"; those countries whose 1st case was reported after 1 Mar 2020 did not have cases on 1 Mar 2020. - Mod.UBA]

Countries with more than 5000 cases not on the list above (as the list has grown longer, we froze the list and maintain a list of countries passing the 5000-case mark):
Argentina (39 570), Iraq (29 222), Afghanistan (28 424), Oman (28 566), Bolivia (22 476), Bahrain (20 916), Armenia (19 708), Nigeria (19 147), Kazakhstan (16 351), Moldova (13 556), Ghana (13 203), Guatemala (12 509), Azerbaijan (11 779), Algeria (11 631), Honduras (11 258), Cameroon (10 638), Sudan (8416), Nepal (8605), Cote d'Ivoire (6874), Uzbekistan (6119), Senegal (5783), Congo DR (Kinshasa) (5672), Tajikistan (5399), North Macedonia(5005)*

Countries and territories with 1000-5000 cases (in decreasing order of cumulative cases):
Haiti, Guinea, Djibouti, Gabon, Kenya, El Salvador, Luxembourg, Hungary, Ethiopia, Bulgaria, Venezuela, Bosnia and Herzegovina, Greece, Thailand, Kyrgyzstan, Somalia, Mauritania, Central African Republic, Mayotte, Cuba, Croatia, Maldives, Costa Rica, Estonia, French Guiana, Sri Lanka, Mali, South Sudan, Albania, Nicaragua, Iceland, Lithuania, Equatorial Guinea, Slovakia, Guinea-Bissau, Slovenia, Lebanon, New Zealand, Madagascar, Zambia, Paraguay, (10)(2e), Tunisia, Hong Kong, Latvia, Niger, Jordan

Countries with 500-999 cases (in decreasing order of cumulative cases):
Cyprus, Yemen, Burkina Faso, Georgia, Republic of Congo (Brazzaville), Chad, Andorra, Uruguay, Cabo Verde, Uganda, San Marino, Sao Tome and Principe, Palestinian Authority, Mozambique, Malta, Rwanda, Benin, Jamaica, Eswatini/Swaziland, Malawi, Liberia, Channel Islands, Togo, Libya*, Tanzania, Reunion

Countries with notable overnight changes or escalating reports to keep an eye on (in alphabetical order):
Afghanistan, Albania, Algeria, Argentina, Armenia, Bangladesh, Belarus, Brazil, Botswana*, Burundi, Cameroon, Central African Republic, Canada, Comoros, the Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Eswatini/Swaziland, Ethiopia, France, French Guiana , Hong Kong, Honduras, Hungary, India, Indonesia, Iran, Ireland, Israel, Jordan, Kenya, Libya, Luxembourg, Madagascar, Malawi, Mali, Mauritania, Moldova, Morocco, Mozambique, Nepal, Netherlands, Oman, Philippines, Poland, Portugal, Qatar, Romania, Saudi Arabia, Senegal, Serbia, South Sudan, Sudan, Tajikistan, Zambia, Zimbabwe

Total number of reported deaths: 464 483 Total number of worldwide cases: 8 841 106 Number of newly confirmed cases in past 24 hours: 90 116

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[According to the data on the Worldometer website, the total number of reported cases of COVID-19 worldwide is now 8 841 106, with reports of cases by 217 countries and territories worldwide. The global case count rose by 0.95% in the past 24 hours. The USA, with more than 2.31 million confirmed cases, now represents 26.2% of the global cases of COVID-19, and Brazil, having crossed the 1 million mark (more than
1.04 million), represents 11.8% of the global cases of COVID-19. Other countries such as Chile, Peru, Mexico, India, Saudi Arabia, South Africa, and Pakistan are reporting increased numbers of new and cumulative cases as well. A global total of 464 483 deaths have been reported, an increase of 1964 deaths in the past 24 hours. A reminder that in the absence of well-developed contact-tracing activities with testing of asymptomatic and mildly ill contacts, numbers of SARS-CoV-2 virus infections are significantly underreported: actual numbers may be 10-20 times larger. There are also individuals who stay at home throughout their illness, sometimes, unfortunately, dying at home, who are never officially confirmed as infected with the SARS-CoV-2 virus.
These data are presented to provide relative indicators of the situations in each of the countries and comparisons between countries and regions of the world.

In descending rank order, the USA is number 1 for cumulative confirmed cases of COVID-19, followed by Brazil, Russia, India, the UK, Spain, Peru, Italy, Chile and Iran at number 10. China is number 21. In descending rank order, USA is number 1 for the number of newly confirmed cases in the past 24 hours, followed by India, Russia, Pakistan, Chile, Mexico, Brazil, Saudi Arabia, Bangladesh and Iran, all countries that are currently experiencing major community-based transmission.

The top 20 countries in terms of absolute cumulative cases include 7 from the European region, 6 from the Americas region, 4 from the Eastern Mediterranean region, 2 from the South-East Asia region, and 1 from the African region, a change in the last 24 hours as China moved to slot 21. There are no countries from the Western Pacific region.
This listing very much reflects the "hot spots" in terms of countries and regions with ongoing high transmission of the SARS-CoV-2 virus. - Mod.UBA

HealthMap/ProMED-mail map:
Worldwide: <http://healthmap.org/promed/p/8854>]

[See Also:
COVID-19 update (273): selected countries
http://promedmail.org/post/20200620.7490487

COVID-19 update (272): Italy sewage, Germany slaughterhouse, WHO, global http://promedmail.org/post/20200620.7490347
COVID-19 update (271): selected countries
http://promedmail.org/post/20200619.7486581
COVID-19 update (270): India, rapid breath test, WHO, global
http://promedmail.org/post/20200619.7486560
COVID-19 update (269): selected countries
http://promedmail.org/post/20200618.7483055
COVID-19 update (268): USA prisons, WHO, global
http://promedmail.org/post/20200618.7482347
COVID-19 update (267): animal, domestic, wild, cat, research
http://promedmail.org/post/20200617.7480013
COVID-19 update (266): Denmark (ND) animal, farmed mink, 1st rep
http://promedmail.org/post/20200617.7479510
COVID-19 update (265): selected countries
http://promedmail.org/post/20200617.7478059
COVID-19 update (264): China (Beijing), dexamethasone, WHO, global
http://promedmail.org/post/20200617.7477998
COVID-19 update (263): selected countries
http://promedmail.org/post/20200616.7473861
COVID-19 update (262): China (Beijing), superspreaders, WHO, global
http://promedmail.org/post/20200616.7473860
COVID-19 update (261): selected countries
http://promedmail.org/post/20200615.7469636
COVID-19 update (260): China (Beijing) South Africa, WHO, global
http://promedmail.org/post/20200615.7469624
COVID-19 update (250): selected countries
http://promedmail.org/post/20200610.7448037
COVID-19 update (240): journal retractions, Yemen, WHO, global
http://promedmail.org/post/20200606.7433414
COVID-19 update (230): Netherlands (NB, LI) animal, farmed mink, spread, control http://promedmail.org/post/20200602.7420433
COVID-19 update (220): global, USA, Italy genomic studies, WHO
http://promedmail.org/post/20200530.7400094
COVID-19 update (210): global, Rwanda innov., Solidarity hold, Germany church, WHO http://promedmail.org/post/20200526.7376354
COVID-19 update (200): global, Yemen, WHO
http://promedmail.org/post/20200522.7364937
Undiagnosed pediatric inflammatory syndrome (06): COVID-19, heart, young adults http://promedmail.org/post/20200522.7364506
Undiagnosed pediatric inflammatory syndrome (05): Europe, USA,
COVID-19 assoc http://promedmail.org/post/20200518.7340554
Undiagnosed pediatric inflammatory syndrome (04): USA, UK, PMIS, fatal
http://promedmail.org/post/20200509.7315405
Undiagnosed pediatric inflammatory syndrome (03): USA, Europe,
COVID-19 susp, RFI http://promedmail.org/post/20200505.7299876
COVID-19 update (150): global, USA state prisons, WHO
http://promedmail.org/post/20200502.7290671
Undiagnosed pediatric inflammatory syndrome (02): France, UK, COVID-19 susp, RFI http://promedmail.org/post/20200430.7286479
Undiagnosed pediatric inflammatory syndrome: UK, COVID-19 suspected, alert, RFI http://promedmail.org/post/20200427.7273105
COVID-19 update (100): China, S. Korea & high local transmission countries http://promedmail.org/post/20200413.7217806
COVID-19 update (50): China (Hong Kong) animal dog, 2nd case PCR positive, OIE http://promedmail.org/post/20200323.7129951
COVID-19 update (01): China, global, EVZD, reporting criteria, WHO
http://promedmail.org/post/20200213.6984084
Novel coronavirus (42): China, global, COVID-19, SARS-CoV-2, WHO
http://promedmail.org/post/20200211.6979942
Novel coronavirus (41): China, global, clinical pics, asymptomatic trans., WHO http://promedmail.org/post/20200210.6976117
Novel coronavirus (40): animal reservoir, pangolin poss intermediate host, RFI http://promedmail.org/post/20200210.6972104
Novel coronavirus (30): updates, China, Viet Nam, research
http://promedmail.org/post/20200202.6945658
Novel coronavirus (20): China, wildlife trade ban
http://promedmail.org/post/20200127.6922060
Novel coronavirus (10): China (HU, GD, BJ)
http://promedmail.org/post/20200119.6898567
Novel coronavirus (01): China (HU) WHO, phylogenetic tree
http://promedmail.org/post/20200112.6885385
Undiagnosed pneumonia - China (HU) (10): genome available, Hong Kong surveill. http://promedmail.org/post/20200111.6883998
Undiagnosed pneumonia - China (01): (HU) wildlife sales, market closed, RFI http://promedmail.org/post/20200102.6866757
2019
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Undiagnosed pneumonia - China (HU): RFI
http://promedmail.org/post/20191230.6864153]
.....sb/uba/tw/sh

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