Force Health Protection Branch
NATO MilMed COE
Munich

Short Update 62a
COVID-19
Coronavirus Disease
26th of March 2021

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GLOBAL
↗
125 522 581
Confirmed cases
71 127 850 recovered
2 755 770 deaths

USA
↗
(new cases/day 65 245)
29 963 074
confirmed cases
Xx recovered
544 552deaths

Brazil
(new cases/day 89 992)
↗
12 320 169
confirmed cases
10 808 499 recovered
303 462 deaths

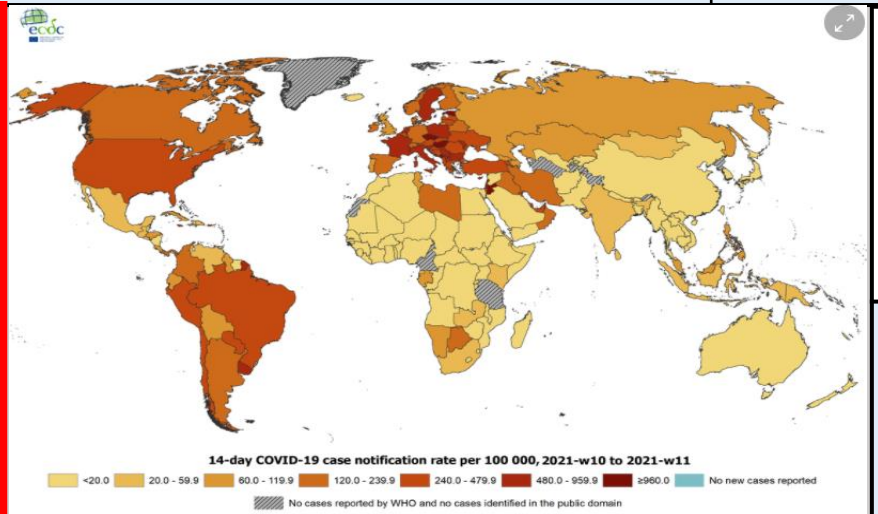
India
(new cases/day 53 476)
↗
11 846 652
confirmed cases
11 264 637 recovered
160 949 deaths

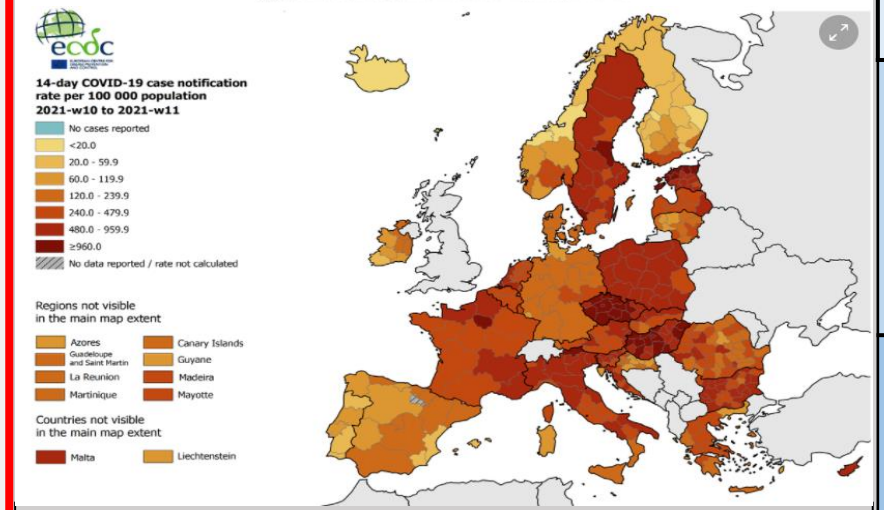
News:

- **All WHO Regions**, except Africa, reported an increase in case numbers with many countries describing a 'third' wave and (re)introduction of control measures.
- **EU:** There is on-going controversy within the EU regarding vaccine provision and supply.
- Increasing concern has been raised about VOC (particularly the 501Y.V2 and P.1 variants) with recent reports suggesting that they are associated with higher mortality and limited vaccine efficacy.
- **CDC:** The freedom-of-manoeuvre generated by vaccination has been widely debated with the US CDC producing guidance suggesting non-pharmaceutical interventions (NPIs) do not have to be followed in those who are fully vaccinated. This has not been mirrored by other countries.
- **NATO:** In order to facilitate the smooth organization of the first NATO summit with the new US President Biden, some 3,500 employees at the Brussels alliance headquarters are currently being vaccinated prematurely against Corona. The first round of vaccination is expected to be completed as early as this Saturday evening. The immunization of NATO personnel can take place because Poland, despite the shortage of vaccines at home, agrees to provide the approximately 7000 necessary doses. NATO host country Belgium did not want to deviate from the normal vaccination order. The country said it would not have been vaccinated at NATO headquarters until next month at the earliest.
- **EU:** The European Parliament has paved the way for the rapid introduction of a European vaccination certificate. Members decided to fast-track development and approval. This means that the planned vaccination certificate can be introduced as early as June. With this document, the EU Commission wants to create a joint technical solution for the 27 EU states and to overcome current travel restrictions. The certificate is intended to record vaccinations, results of approved tests and information on corona infections within the overcome of corona infections and to be recognised throughout the EU.
- **ECDC:** Published the final report – stress test on logistical aspects of COVID-19 vaccination deployment plans for the Western Balkans.
- **WHO:** New research highlights risks of separating newborns from mothers during COVID-19 pandemic.
- **WHO**: published how to monitor and report COVID-19 vaccine side effects.
- **WHO:** WHO Interim recommendations for use of the Janssen Ad26.COV2.S (COVID-19) vaccine here.
- WHO's health emergencies online learning platform: **OpenWHO.org**.
- Find Articles and other materials about COVID-19 on our website **here**.
- Please use our online observation form to report your lessons learned observations as soon as possible **here**.

Topics:

- Global situation
- SARS-CoV-2 variants of concern
- **Subject in Focus:** Public Health England vaccine effectiveness report
- 8 tips for spring
- Three ways to detect a corona infection
- Timeline COVID-19 infection
- In the press





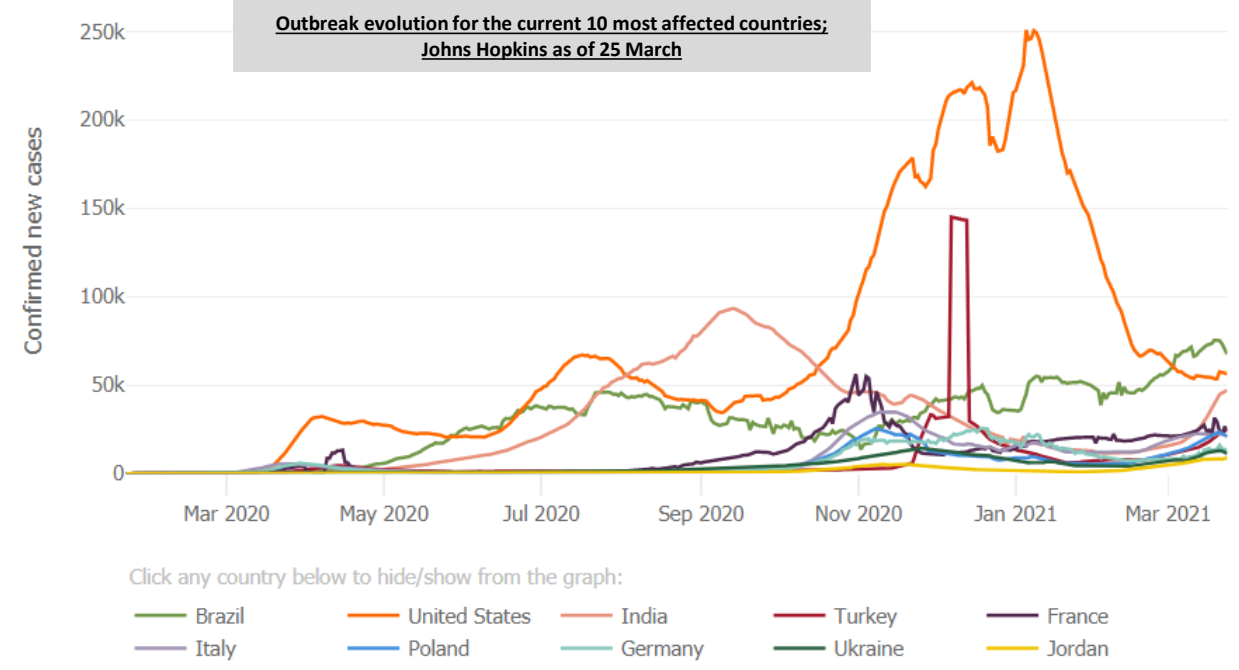
EUROPE
↗
41 661 486
confirmed cases
22 581 000 recovered
924 961 deaths

Russia
(new cases/day 9 128)
→
4 442 492
confirmed cases
4 062 446 recovered
95 010 deaths

France
(new cases/day 45 641)
↗
4 424 087
confirmed cases
286 607 recovered
93 378 deaths

GBR
(new cases/day 6 220)
→
4 319 132
confirmed cases
xx recovered
126 445 deaths

Global Situation



Country reports:

DEU: For all travelers who want to travel to Germany by plane, a mandatory corona test has to be conducted before departure, this new rule applies from Friday onwards. Those affected would have to present a negative result to the airline “prior to departure abroad”. The new regulation deviates from the previous regulation that only returnees from risk areas are required to test.In addition, the government is examining the possibility of temporarily preventing trips to popular foreign holiday areas.

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More than 20,000 new infections were reported for the second day in a row. The seven-day incidence rose to 119.1 on Friday (previous day: 113.3). That's the highest level since mid-January.

AUT: Vienna and two neighboring Austrian federal states have imposed a tough lockdown over Easter. From Maundy Thursday to April 6, curfews also apply during the day. Museums and shops that are not selling essential need goods have to close.

BEL: In view of the third wave of corona, Belgium is tightening governmental restrictions to contain the pandemic. Prime Minister Alexander De Croo announced on Wednesday after government consultations a four-week "Easter break". It was decided to take strong but short measures. Businesses that are not essential are only allowed to receive customers with an appointment during the "cooling-off phase". Services that require physical contact such as hairdressers have to close. Only four instead of ten people wearing masks are allowed to meet outdoors. From Monday there will only be distance teaching in schools. The goal remains to fully reopen the schools on April 19 after the Easter break.

FRA: Because of the extent of the third corona wave, France is expanding the regional lockdowns: Shops are to be closed in three other departments and the freedom of movement of citizens is to be restricted. In total, the stricter Corona requirements affect 19 administrative districts with more than 23 million people. Lockdowns now also apply in the Rhone department around the city of Lyon in eastern France and in the administrative districts of Aube southeast of Paris and Nièvre south of the capital. The weekly incidence there is between 300 and 400 new infections per 100,000 inhabitants.

DEN/RUS: At the beginning of the Third Wave in Europe, the officials of the European Soccer Championship are planning to host the Games in the summer. The European Championship matches will be held in the Danish capital Copenhagen and in St. Petersburg, Russia. at least 11,000 to 12,000 spectators will be allowed in the four games in DEN. If the situation allows it, more spectators are also possible. In RUS, a capacity utilization of 50 percent of the seats and also the arrival of foreign spectators would be possible.

GIB: Has no more COVID-19 patients in the hospital, reported only one corona case in one week and therefore leaves the reins carefully loose. On Thursday, a curfew imposed three months ago from 0 a.m. to 5 a.m. will end, allowing bars and pubs to stay open until 2 a.m. As of Saturday midnight, there will no longer be any mask requirement in all outdoor areas. However, some restrictions on meetings remain.

USA: The US wants to support the Palestinians in the West Bank and Gaza Strip in their anti-Corona fight with the equivalent of 12.6 million euros. The money will therefore go from the US development agency USAID to Corona-fighting operations of Catholic aid services in medical facilities and their use for vulnerable families in the Palestinian territories. The funds would also be invested in emergency food supplies for communities in need as a result of the pandemic.

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California wants to keep up the pace of vaccination: From mid-April, all residents aged 16 and over will be able to get vaccinated against the coronavirus. From the beginning of the month, the offer is to be offered to residents aged 50 and over. Officials say more than 15 million people have been vaccinated in his state in recent months. With a population of about 40 million, California is the most populous U.S. state.

IRQ: For the first time, Iraq has received a delivery of the vaccine from the manufacturer AstraZeneca. The 336,000 doses of vaccine arrived by ship and were distributed to Iraq through the World Health Organization's Covax program.

BRA: The number of daily corona new infections has reached a new high of more than 100,000 cases. The situation has worsened since February. On the one hand, many people do not follow the precautions to contain the pandemic, and on the other hand, the virus variant P1, which is now rampant in Brazil, appears to be significantly more contagious than the original Covid-19 pathogen. And Brazil was only the second country in the world to break the “3,000 corona deaths recorded in one day”-mark - 3,251 people died within 24 hours.

ARG: With the increasing number of infections in Brazil, Mexico and Chile, Argentina is suspending flights from these countries. From Saturday, flights with the three states would be suspended until further notice. The Argentine government recently urged the citizens of the South American country to refrain from travelling abroad. Returnees must be quarantined for at least ten days. Anyone who is tested positive for Corona on arrival must move to a hotel at their own expense for the time of isolation. With autumn approaching in the southern hemisphere, authorities are preparing for the second wave of the Corona.

Global Situation

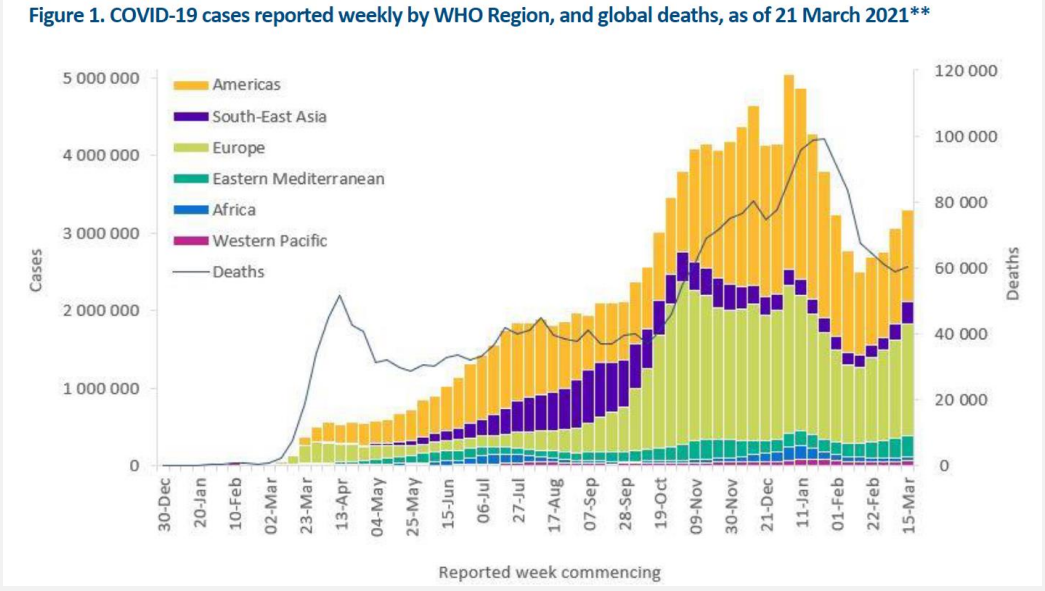
Global epidemiological situation overview; WHO as of 21 March 2021

Globally, COVID-19 confirmed cases continued to rise for a fourth consecutive week, with just under 3.3 million new cases reported in the last week (Figure 1). At the same time, the number of new deaths reported plateaued after a six week decrease, with just over 60 000 new deaths reported. Marked increases in the number of new cases were reported from the South-East Asia, Western Pacific, European and Eastern Mediterranean regions, all of which have been on an upward trajectory in recent weeks. Case incidence in the African Region and the Region of the Americas has remained stable in recent weeks, notwithstanding concerning trends observed in some countries within these regions. The European Region and the Region of the Americas continue to account for nearly 80% of all the cases and deaths. The only WHO region to report a decline in new deaths this week was the Western Pacific where deaths fell by nearly a third, compared to the previous week.

In the past week, the five countries reporting the highest number of new cases were:

- **Brazil;** reporting 508 010 cases, a 3% increase,
- **United States of America;** reporting 374 369 cases, a 19% decrease,
- **India;** reporting 240 082 cases, a 62% increase
- **France;** reporting 204 840 cases, a 27% increase and
- **Italy;** reporting 154 493 cases, similar to previous week.

Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 21 March 2021**



Source: https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---23-march-2021

Vaccination news:

EU: According to a decision by the EU commission on Wednesday, the export of the scarce corona vaccines from the European Union will be more strictly controlled and, if necessary, stopped more frequently. To this end, the export controls introduced at the beginning of February were expanded. New criteria make it possible to withhold vaccines if proportionality and reciprocity are not maintained. There will be no general export bans. Exports to developing countries will not be hindered.
Of the nearly 450 million EU citizens, 62 million have now been vaccinated against Corona at least once. 18.2 million people also received their second dose. The EU countries have so far received around 88 million doses of vaccination from pharmaceutical companies. At the same time, 77 million cans have been exported from the EU since 1 December. Of the exports, the UK alone received 21 million doses, including one million from AstraZeneca and the rest from BioNTech/Pfizer,

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AstraZeneca/GBR: After doubts about a large-scale US study on the effectiveness of AstraZeneca's corona vaccine, the pharmaceutical company has revised its information downwards. The vaccine protects 76 percent instead of 79 percent of people vaccinated from a corona infection with symptoms, as the company announced on Wednesday. US experts had previously argued that outdated data may have been used in the study. The vaccine is still 100 percent effective against severe Covid diseases, the company said on Wednesday. Astrazeneca announced the results of its Phase III study in the US on Monday.

BioNTech: After competitors Moderna and AstraZeneca, BioNTech has also started testing its Corona vaccine on younger children. The clinical tests are intended to investigate the safety, tolerability and efficacy of the vaccine in children between six months and 11 years of age.

IND/COVAX: There are significant delays in the worldwide delivery of Corona vaccines due to export restrictions in India. The United Nation's Covax solidarity vaccination programme expects deliveries planned for March and April to not arrive as expected. Covax wanted to distribute a total of 237 million doses of vaccine from the beginning of March to May - more than 100 million of them produced by the Serum Institute in India. Now, the delivery of up to 90 million cans that Covax was supposed to receive in March and April from the Serum Institute will be delayed, Covax said. 28 million doses have arrived so far. The background is that India is claiming to use the vaccine by itself.

GIB: More than 24,000 people have now been vaccinated in Gibraltar, (this equals 70 percent of the population of the British Overseas Territory). It also vaccinates the more than 10,000 workers from Spain who cross the border every day.

SWE: Sweden wants to allow AstraZeneca vaccinations for over-65s again. However, the use of the vaccine will continue to be suspended for younger people, the health authority announced. A possible link with blood clots is still being investigated.

ISR: Half of Israelis have already received the second dose of vaccine against the coronavirus. According to data from his ministry, nearly 4.7 million people received the second dose. The number of first vaccinations was more than 5.2 million, it had only increased slightly in the past few days. The vaccination campaign in Israel began shortly before Christmas and is one of the most successful in the world. In the past few weeks, the number of seriously ill and new infections has decreased significantly. According to the national statistics office, 9.305 million people lived in the Mediterranean country in January. Israel is a very young country, around 30 percent of its citizens are under the age of 16 years. This age group cannot yet be vaccinated.

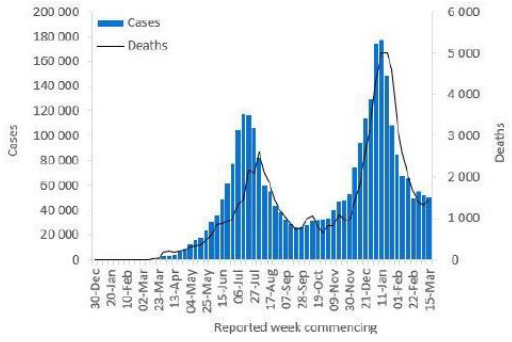
Situation by WHO Region, as of 21st March

WHO regional overviews

African Region

The African Region reported nearly 51 000 new cases and over 1400 new deaths, a 3% decrease and a 10% increase respectively compared to the previous week. This is the first time in eight weeks, that an increase in new deaths has been reported. The highest numbers of new cases were reported from Ethiopia (11 587 new cases; 10.1 new cases per 100 000 population; a 28% increase), South Africa (8387 new cases; 14.1 new cases per 100 000; a 2% increase), and Kenya (7358 new cases; 13.7 new cases per 100 000; a 66% increase).

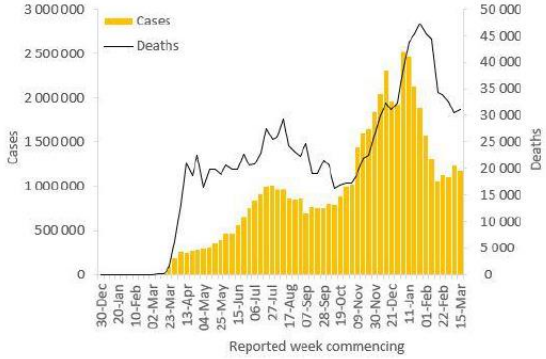
The highest numbers of new deaths were reported in the same countries, from South Africa (821 new deaths; 1.4 new deaths per 100 000 population; a 34% increase), Ethiopia (107 new deaths; 0.1 new deaths per 100 000; a 11% decrease), and Kenya (79 new deaths; 0.1 new deaths per 100 000; a 132% increase).



Region of the Americas

The Region of the Americas reported nearly 1.2 million new cases and just over 31 000 new deaths, a 5% decrease and a 2% increase respectively compared to the previous week. After six weeks of decline in deaths, this week there has been a slight increase reported. The highest numbers of new cases were reported from Brazil (508 010 new cases; 239 new cases per 100 000; a 3% increase), the United States of America (374 369 new cases; 113.1 new cases per 100 000; an 19% decrease), and Peru (49 035 new cases; 148.7 new cases per 100 000; a 11% increase).

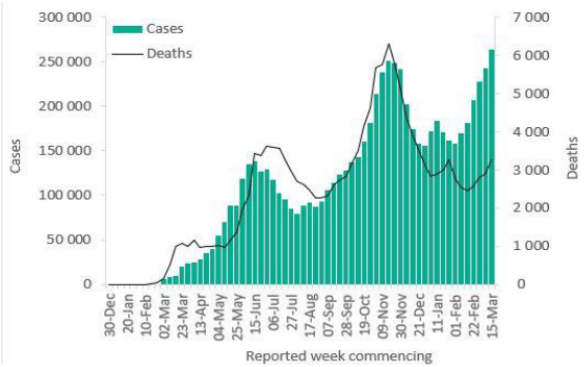
The highest numbers of new deaths were reported from Brazil (15 209 new deaths; 7.2 new deaths per 100 000; a 23% increase), the United States of America (7552 new deaths; 2.3 new deaths per 100 000; a 19% decrease), and Mexico (3368 new deaths; 2.6 new deaths per 100 000; a 21% decrease).



Eastern Mediterranean Region

The Eastern Mediterranean Region reported nearly264 000 new cases and just over 3200 new deaths, an 8% and a 12% increase respectively compared to the previous week. New weekly cases have increased for the past six weeks and deaths have increased for the past four weeks. The highest numbers of new cases were reported from Jordan (57 666 new cases; 565.2 new cases per 100 000; a 21% increase), the Islamic Republic of Iran (54 445 new cases; 64.8 new cases per 100 000; a 6% decrease), and Iraq (35 072 new cases; 87.2 new cases per 100 000; a 13% increase).

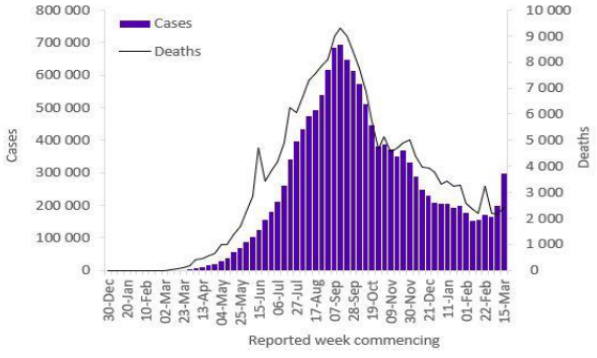
The highest numbers of new deaths were reported from the Islamic Republic of Iran (582 new deaths; 0.7 new deaths per 100 000; a 6% increase), Jordan (503 new deaths; 4.9 new deaths per 100 000; a 31% increase), and Lebanon (381 new deaths; 5.6 new deaths per 100 000; an 19% increase).



South-East Asia Region

The South-East Asia Region reported over 298 000 new cases and over 2400 new deaths, a 49% and a 14% increase respectively compared to the previous week. Eighty per cent of all new cases were reported from India. The highest numbers of new cases were reported from India (240 082 new cases; 17.4 new cases per 100 000; a 62% increase), Indonesia (41 047 new cases; 15.0 new cases per 100 000; similar to the previous week), and Bangladesh (12 470 new cases; 7.6 new cases per 100 000; a 91% increase).

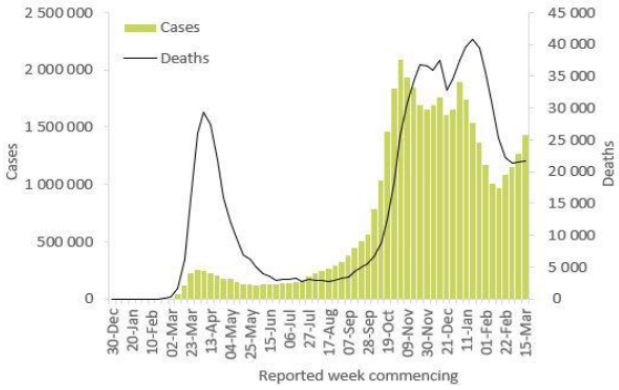
The same countries reported the highest numbers of new deaths in the region; India (1148 new deaths; 0.1 new deaths per 100 000; a 35% increase), Indonesia (1118 new deaths; 0.4 new deaths per 100 000; a 5% decrease), and Bangladesh (141 new deaths; 0.1 new deaths per 100 000; an 86% increase).



European Region

The European Region reported over 1.4 million new cases and nearly 22 000 new deaths, a 13% and a 1% increase respectively compared to the previous week. Cases in the Region have been steadily increasing over the past four weeks. The highest numbers of new cases were reported from France (204 840 new cases; 313.8 new cases per 100 000; a 27% increase), Italy (154 493 new cases; 255.5 new cases per 100 000; similar to the previous week), and Poland (151 918 new cases; 401.4 new cases per 100 000; a 36% increase).

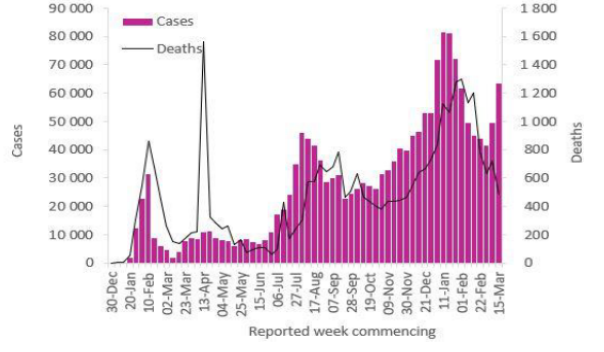
The highest numbers of new deaths were reported from Russian Federation (2940 new deaths; 2 new deaths per 100 000; a 2% decrease), Italy (2761 new deaths; 4.6 new deaths per 100 000; a 20% increase), and Poland (2122 new deaths; 5.6 new deaths per 100 000; a 12% increase).



Western Pacific Region

The Western Pacific Region reported nearly 64 000 new cases and nearly 500 new deaths, a 29% increase and a 33% decrease respectively compared to the previous week. Although the number of new cases in the region has increased for the third consecutive week, the number of new weekly deaths continues to decline. The highest numbers of new cases were reported from the Philippines (39 445 new cases; 36 new cases per 100 000; a 55% increase), Malaysia (9304 new cases; 28.7 new cases per 100 000; a 12% decrease), and Japan (8765 new cases; 6.9 new cases per 100 000; a 11% increase).

The highest numbers of new deaths were reported from Japan (252 new deaths; 0.2 new deaths per 100 000; a 24% decrease), the Philippines (164 new deaths; 0.1 new deaths per 100 000; a 45% decrease), and the Republic of Korea (27 new deaths; 0.1 new deaths per 100 000; a 23% decrease). Japan and the Philippines reported 86% of new weekly deaths in the Region.



Source:

https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---23-march-2021

Update on SARS-CoV-2 Variants Of Concern (VOC)

WHO/ECDC is working with partners to evaluate available evidence around transmissibility, severity, antibody neutralization capabilities and potential impacts on vaccines of specific mutations, variants of interest and variants of concern. Here we provide an update on ongoing studies, as well as the geographical distribution of three variants of concern as reported by countries, territories and areas (hereafter countries) as of 16 March 2021:

1. Variant VOC 202012/01 , lineage B.1.1.7:

Since our last update on 16 March, VOC 202012/01 has been detected in seven additional countries. As of 23 March, a total of 125 countries across all six WHO regions have reported cases of this variant.
Previous studies have shown VOC 202012/01 may be associated with an increased risk of hospitalization, severity and mortality. A recently published matched cohort study provides additional evidence, highlighting that there is a higher risk of mortality when infected by VOC 202012/01. The study involved nearly 55 000 matched pairs of participants who tested positive for SARS-CoV-2 between 1 October 2020 and 29 January 2021 and were followed-up until 12 February 2021. Results showed an increased mortality hazard ratio of 1.64 (95% confidence interval 1.32 to 2.04). This ratio was associated with infection with VOC 202012/01 compared with infection with previously circulating variants, in patients who tested positive for COVID-19 in the community. Although this constitutes a comparatively low risk group overall, it represents an increase in deaths from 2.5 to 4.1 per 1000 detected cases.

Vaccine updates

There is a growing body of evidence on vaccine-induced neutralizing antibody activity against VOC202012/01, including for AstraZeneca, Moderna, Pfizer, Novavax, and Bharat vaccines. The findings support that neutralizing activity is largely sustained against this variant.Additional evidence is available on the ability of vaccines to protect against disease from VOC 202012/01 are available for the AstraZeneca and Pfizer vaccines, from a randomized controlled trial (RCT) in the UK (AstraZeneca) and observational evidence (Pfizer and AstraZeneca) from the UK during the period when VOC 202012/01 was prevalent. Results from a test-negative case control study conducted in England from December 2020 to February 2021 when VOC202012/01 was very prevalent, showed the early real-world effectiveness of the Pfizer/BioNTech - BNT162b2 vaccine and AstraZeneca - ChAdOx1 vaccine against confirmed COVID-19, hospitalizations and deaths. This study also estimated effectiveness on the VOC202012/01. Both vaccines show that vaccination with either a single dose of BNT162b2 or ChAdOx1 was associated with a significant reduction in symptomatic COVID-19 cases in older adults (>70 years old) with even greater protection against severe disease.
Evidence for vaccines to protect against asymptomatic infection, which would influence community transmission, is limited to the RCT in the UK of the AstraZeneca product. Although effectiveness against disease was largely sustained against VOC202012/01, preliminary evidence suggests that the efficacy against asymptomatic infection is reduced in the face of this variant.

2. Variant 501Y.V2, lineage B.1.351:

Since the last update on 16 March, 501Y.V2 has been reported from 11 additional countries – totaling 75 countries across all six WHO regions. In several areas within the African Region, variant 501Y.V2 has been reported to comprise a high proportion of sequenced samples, including over 90% of sequenced specimens in some settings.
A newly released population-based study in South Africa, available in preprint, compared in-hospital mortality during its first wave peaking in mid-July 2020 to the second wave peaking in January 2021 when variant 501Y.V2 was the predominant variant. After adjusting for weekly hospital admissions, the risk of in-hospital mortality increased by 20% (adjusted odds ratio of 1.2, 95%CI 1.2-1.3).

Vaccine updates

Reductions in neutralizing antibody activity against 501Y.V2 induced by vaccines or natural infection compared with wild-type (non-VOC) variants, have been documented in a substantial number of studies. Findings from a recent study that analyzed convalescent plasma from 20 patients and sera from 22 participants of vaccine trials [Moderna SARS-CoV-2 mRNA-1273 vaccine (12 participants); Pfizer BNT162b2 COVID-19 vaccine (10 participants)] indicated that relative to wild-type variants, there was a substantial decrease in the neutralizing activity of convalescent plasma (9.4-fold) and sera from vaccinated participants (10.3 to 12.4-fold) against 501Y.V2.31 In addition, T-cell analyses suggest this component of the vaccine induced immune response is less influenced by the variants than the impact on the neutralization activity.
Evidence of vaccine efficacy against clinical disease from B.1.351 is available for AstraZeneca, Janssen and the Novavax vaccines. Comparisons are hampered by different case definitions, and trials sizes. Although there appears to be some reduction in efficacy compared with non-B.1.351 strains, both the Novavax and the Janssen product retain significant efficacy. The AstraZeneca trial found no statistically significant efficacy; however, this trial was of a small sample size, had only mild and moderate cases and used a dosing interval of 4 weeks. Separate evidence indicates a longer dosing interval improves both immunogenicity and efficacy, which along with other evidence leave open the plausibility that efficacy against severe disease may be partially retained.

3. Variant P.1, lineage B.1.1.28:

Since our last update, variant P.1 has been reported in three additional countries. As of 23 March, this variant is reported in 41 countries across all six WHO regions.
A recent study analyzed the national health surveillance data of hospitalizations and frequency of variant P.1 in Manaus city, in Amazonas State, Brazil where this variant was first detected and has widely spread.

Update on SARS-CoV-2 Variants Of Concern (VOC)

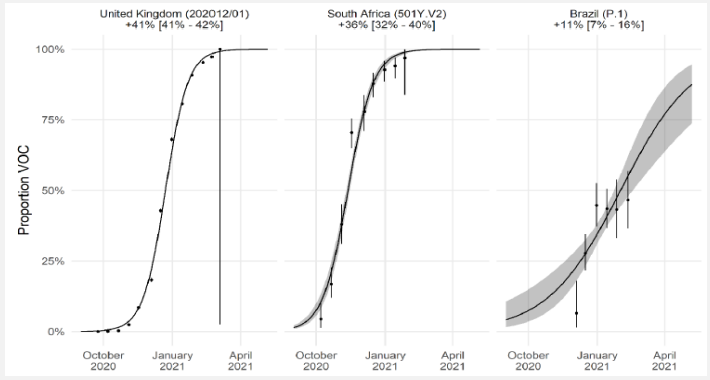
Based on the preliminary findings, P.1 is found to be 2.5 times more transmissible (95% CI:2.3-2.8) compared to the previously circulating variant while the reinfection probability was found to be low i.e. 6.4% (CI:5.7–7.1%).39. Two additional studies analyzed the genomic data from Manaus and estimated higher transmissibility of the P.1 variant.7, However, these are preliminary findings and more studies are required to fully understand the transmissibility and severity of P.1 variant.

Vaccine updates

Numerous studies have measured the neutralization of variant P.1 by sera from those vaccinated with Pfizer, Moderna, AstraZeneca or Sinovac against SARS-CoV-2 virus including in Manaus. Based on these findings, the neutralization activity was reduced by 2.6 to 10-fold depending on the vaccine and individuals. In particular, among people vaccinated with the Sinovac product (CoronaVac vaccine), the plasma failed to efficiently neutralize variant P.1 suggesting possibility of reinfection. One T-cell study concluded that response was largely preserved. There are no clinical outcome data following vaccination which are needed to understand the implications of the limited to moderate loss of neutralization activity.

3. Proportion of SARS-CoV-2 202012/01, 501Y.V2 and P.1 variants over time in the United Kingdom, South Africa and Brazil, respectively.

VOC 202012/01, 501Y.V2 and P.1 have commonly demonstrated an increase in transmissibility compared to wild-type (non-VOC) variants, and a veracity to rapidly replace other circulating strains. We analysed sequence data submitted to GISAID to determine the change in proportion of VOCs over time and calculate the associated change in transmissibility. Variants 202012/01, 501Y.V2 and P.1 rapidly replaced the wild-type variant in the United Kingdom, South Africa and Brazil, respectively.



4. Condensed overview of emerging information on key variants of concern as of 23 March 2021

Nextstrain clade	20C	20C/S:452R	20J
PANGO lineage	B.1.525	B.1.427/B.1.429	B.1.1.28.2, alias P.2
GISAID clade	G/484K.V3	GH/452R.V1	
Alternate names		CAL.20C/L452R	
First detected by	United Kingdom and Nigeria	United States of America	Brazil
First appearance	December 2020	June 2020	April 2020
Key spike mutations	H69-V70 deletion; Y144 deletion; Q52R; E484K; Q677H; D614G; and F888L	L452R; W152C; S13I; D614G	L18F; T20N; P26S; F157L; E484K; D614G; S929I; and V1176F

Nextstrain clade	20I/501Y.V1	20H/501Y.V2[†]	20J/501Y.V3
PANGO lineage	B.1.1.7	B.1.351	B.1.1.28.1, alias P.1[†]
GISAID clade	GR	GH	GR
Alternate names	VOC 202012/01[†]	VOC 202012/02	-
First detected by	United Kingdom	South Africa	Brazil / Japan
First appearance	20 September 2020	Early August 2020	December 2020
Key spike mutations	H69/V70 deletion; Y144 deletion; N501Y; A570D; and P681H	L242/A243/L244 deletion; K417N E484K, N501Y	K417T, E484K; N501Y
Key mutation in common	S106/G107/F108 deletion in Non-Structural Protein 6 (NSP6)		
Transmissibility*	Increased[1, 2] (36%-75%)[3], increased secondary attack rate[4] (10% to 13%)	Increased [1.50 (95% CI: 1.20-2.13) times more transmissible than previously circulating variant [5, 6]	Increased, more transmissible than previous circulating variants[7]
Severity*	Possible increased risk of hospitalization[8], severity and mortality[4]	Possible increased risk of in-hospital mortality by 20%[6, 9]	Under investigation, limited impact[7]
Neutralization capacity*	Slight reduction but overall neutralizing titers still remained above the levels expected to confer protection[10]	Decreased, suggesting potential increased risk of reinfection[5, 11, 12]	Decreased, reinfections reported[13, 14]
Potential impacts on vaccines*	• No significant impact on post-vaccine neutralization by Moderna, Pfizer-BioNTech, Oxford-AstraZeneca, Novavax and Bharat vaccines 15-18 • No significant change in prevention of disease by Oxford-AstraZeneca, Novavax, and Pfizer[15-17] • Evidence for prevention of infection evidence limited. Reduced effect reported for Oxford-AstraZeneca.[15, 18]	• Post-vaccine neutralization reductions range from minimal to moderate for Moderna and Pfizer, however there is also some evidence of more substantial reductions.[19] • A single study has evaluated Sinopharm.[20] • Substantial reductions have been found for the Oxford-AstraZeneca product.[21, 22] Results for Novavax and Janssen are pending. • Efficacy against disease was retained, but somewhat lower, in South Africa when 501Y.V2 was dominant compared to settings without this variant.[23, 24] • In a small study, AstraZeneca did not demonstrate vaccine efficacy against mild-moderate COVID-19 disease, with wide confidence intervals, while efficacy against severe disease was not assessed and is undetermined.[25, 26] • There is no evidence to inform vaccine impact on asymptomatic infection by 501Y.V2.	• Limited to modest reduction in post-vaccine neutralization by Oxford-AstraZeneca, Moderna and Pfizer vaccines.[19, 21, 27-31] • Preliminary suggestion of loss of neutralization following vaccination with Sinovac[32]
Potential impacts on diagnostics*	S gene target failure (SGTF).[25] No impact on Ag RDTs observed23	None reported to date	None reported to date
Countries reporting cases (newly reported in last week)**	125 (7)	75 (11)	41(3)

Source: https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---23-march-2021
https://www.who.int/docs/default-source/coronaviruse/risk-comms-updates/update47-sars-cov-2-variants.pdf?sfvrsn=f2180835_4
https://www.ecdc.europa.eu/sites/default/files/documents/RRA-covid-19-14th-update-15-feb-2021.pdf
https://www.who.int/publications/m/item/covid-19-weekly-epidemiological-update

Subject in Focus:
Public Health England vaccine effectiveness report

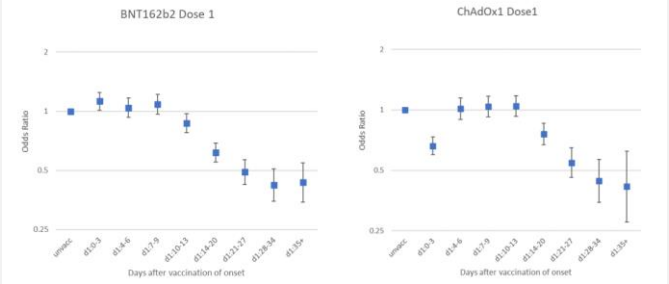
Public Health England is monitoring the effectiveness of COVID-19 vaccines using existing surveillance systems and studies as well as new enhanced surveillance. Vaccine effectiveness is estimated against a range of outcomes including symptomatic disease, hospitalisations, infection and transmission and data is presented on the early effects of vaccination with the Pfizer/BioNTech (BNT162b2) and AstraZeneca (AZ) (ChAdOx1) vaccines on symptomatic COVID-19, infection and hospitalisation, as well as the population level impact on hospitalisations and deaths.

Vaccine effectiveness against symptomatic disease

Using a test-negative case-control design, the age group for Pfizer / BioNTech is ≥ 70 years. With the Pfizer / BioNTech vaccine, the odds ratio begins to decrease 10 to 13 days after vaccination and reaches 0.42 (95% CI 0.35-0.51) from 28 days after vaccination, which corresponds to a vaccination effectiveness of 58%.

With the AZ vaccine the decline begins 14 to 20 days after vaccination and reaches an odds ratio of 0.44 (95% CI 0.35 to 0.57) from 28 to 35 days and 0.42 (95% CI 0.28 to 0.62) from after 35 Days which corresponds to a vaccination effectiveness of 58%. Confidence intervals for the 2 vaccines are overlapping and further follow-up is needed to see whether the effects have plateaued in the case of AZ.

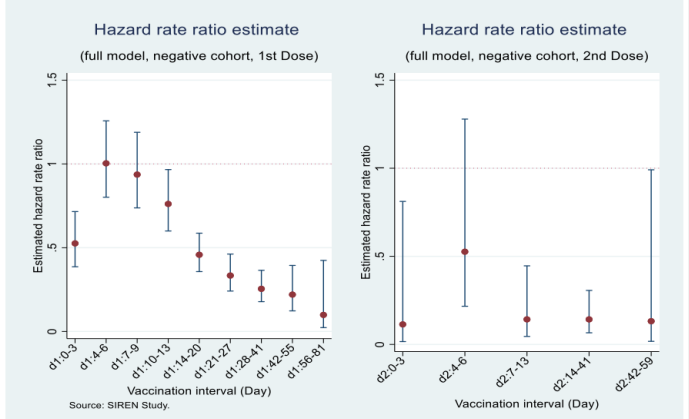
Figure 1. Adjusted odds ratios for confirmed case by interval after first dose vaccination for Pfizer/BioNTech and AstraZeneca vaccines for those aged ≥70 (top 2 panels, left and right respectively) and second dose Pfizer/BioNTech (lower panel), vaccinations administered since 4th January 2021, England.



Overall, the results of the routine test analysis suggest a vaccine effect from the Pfizer / BioNTech vaccine 21 days after vaccination in people ≥ 70 years of age. With 2 doses, the effectiveness of the vaccine reaches around 85 to 90% in the elderly ≥80 years. Again, vaccine effects from a single dose and two doses cannot be compared directly because the number is small and those who received a second dose are likely to be different from those who received a single dose.

An effect was also seen with the AZ Vaccine against symptomatic disease of around 60%.

Figure 2. Adjusted hazard ratios for PCR confirmed case by interval after first and second doses of vaccination, SIREN study



Vaccine effectiveness against severe disease

PHE presented data on hospitalization for people aged 80 and over who had the Pfizer vaccine taking into account age, gender, and nursing home residence (as before). For the first time, hospitalization data was also included for the AZ vaccine too. The results are shown in Table 1. Hospitalization rates for non-vaccinated patients were around 15% Individuals in both populations.

Table 1. Hazard ratios for hospital admission between unvaccinated individuals aged 80+, those within 13 days of dose one, and those at least 14 days post dose one for the Pfizer vaccine (columns on the left) and the AstraZeneca vaccine (right), after adjustment for age, gender, care home residency status and time period (with an assumption that more recent data are more likely to be complete).

	Pfizer				AstraZeneca			
Vaccination status	Total cases	Hospitalisations		Hazard ratio	Total cases	Hospitalisations		Hazard ratio
		n	%			n	%	
Unvaccinated	9,013	1361	15.1%	1	9,013	1,361	15.1%	1.00
Test date less than 14 days after first dose	2,173	311	14.3%	1.00 (0.88-1.13)	634	78	12.3%	1.03 (0.82-1.29)
Test date 14 days or more after first dose	1,689	152	9.0%	0.58 (0.49-0.68)	252	20	7.9%	0.65 (0.44-0.96)

Among those who had their first dose at least 14 days previously, the hospitalization rate was 9% for those who received the Pfizer vaccine and 8% for those who received AZ. Survival analysis showed 42% (Pfizer) and 35% (AZ) reductions in risk of hospitalisation among those who had been vaccinated but became symptomatic, compared with those who had not although confidence intervals around these estimates were broad and overlapping. Combined with the reduced risk of becoming a case, this is consistent with vaccine effectiveness against hospitalisation of around 80%

Case fatality ratios

Mortality rates were around 13% in unvaccinated cases, 10% in those recently vaccinated and 7% in those vaccinated ≥14 days prior to onset.

Source: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/971017/SP_PH__VE_report_20210317_CC_JLB.pdf

Table 2. Case fatality ratios for deaths within 21 days of onset in vaccinated compared to unvaccinated, Pfizer/BioNTech vaccine, after adjustment for age, gender, care home residency status, and for period (with an assumption that the most recent data are likely to be most complete).

Vaccination status	Total cases	Deaths		Hazard ratio
		n	%	
Unvaccinated	8,625	1,115	12.9%	1
Test date less than 14 days after first dose	1,367	131	9.6%	0.74 (0.62-0.88)
Test date 14 days or more after first dose	914	60	6.6%	0.46 (0.36-0.59)

8 easy tips for spring

The coronavirus has changed our everyday life significantly. Fortunately we can get vaccinated against COVID-19 this year! Due to the new, even more offensive virus variants, we should now be particularly careful and protect ourselves and our fellow human beings from the virus. The most important thing: We must continue to comply with all measures. This is the most powerful means by which we can all protect ourselves. Every time we actively slow down the virus, we can take a step forward together.

1

If I have symptoms or I'm not feeling well, then I stay home, don't go to work and talk on the phone or chat with loved ones instead of meeting them.

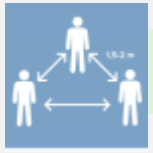
2

If I have symptoms or don't feel well, I seek medical advice. I ask for a test and follow the doctor's instructions

3

If my PCR test is positive, I will inform my private and professional environment immediately by phone or chat. I will notify everyone I have recently met.

4



When I meet others, I am aware that I can also get infected with friends and relatives. I make no exception and keep enough distance.

5

When I meet other people, it is outside. I can also talk to others through the open window.

6

When I meet other people inside, I keep my distance and we ensure regular ventilation. I set an alarm clock that reminds us to open the windows wide for 5 minutes every 20 minutes.

7

When I go shopping, I buy something for others, preferably everything in the same shop. If possible, I shop outside at the market or order via the delivery service.

8

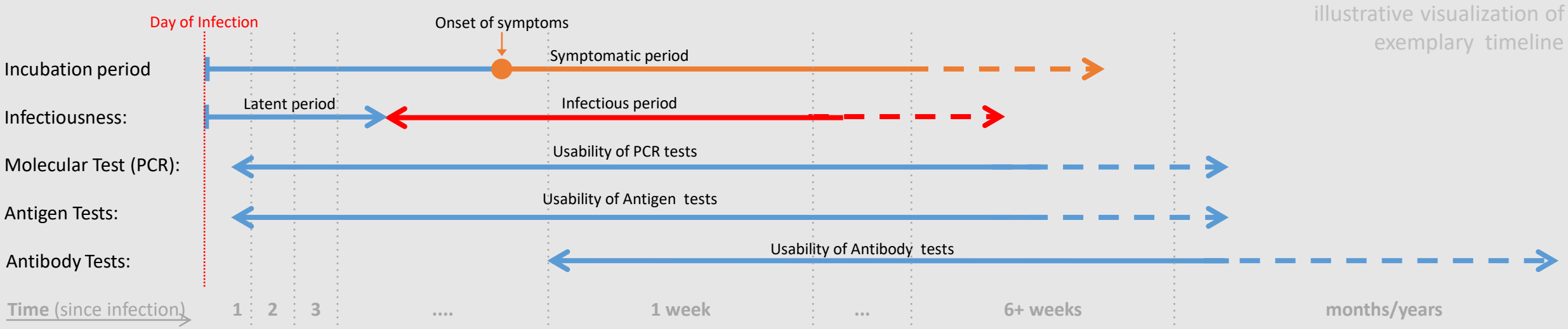
When I'm free, I stay at home instead of traveling. This prevents me from carrying the virus to other areas or bringing it back home.

Three ways to detect a corona infection

Source: https://www.zusammengegencorona.de/

	+ Self test	++ Rapid antigen test	+++ Laboratory test
	The antigen self-test also enables laypersons to test themselves by following the instructions for use. The result is valid for 24 hours.	A sample is taken by trained staff and evaluated on site. The result is valid for 24 hours.	Specialist staff takes a sample from the nose or throat. The evaluation takes place in the laboratory. Due to the scientific investigation, the test takes longer, but it is also very reliable. It is considered the gold standard.
			
WHEN?	**Situation:** no suspicion, no symptoms. **Implementation:** planned visits to family celebrations, friends, school or day-care ⇨ **Preventive testing, third-party protection**	**Situation:** no suspicion, no symptoms or after contact with COVID-19 infected people **Implementation:** planned visits to family celebrations, friends, school or day-care ⇨ **Preventive testing, third-party protection**	**Situation:** symptomatic persons, suspected cases, and/or after a positive quick test or self-test result. ⇨ **Diagnostic**
			
HOW?	freely available in pharmacies or in retail stores. Suitable for self-testing at home.	Implementation in medical practices or test centers by trained staff	Implementation in medical practices or test centres by trained staff.
	15-30 min	15-30 min	1 day
RESULT?	The test person determines the result autonomously by using the test strip	Trained staff determine the result using test strips and provide written evidence	Laboratory analyses sample. Test person receives written or digital evidence.
WHAT NOW?	POSITIVE: laboratory test and isolation NEGATIVE: Avoid the three C's	POSITIVE: laboratory test and isolation NEGATIVE: Avoid the three C's	POSITIVE: Isolation NEGATIVE: Avoid the three C's

Timeline COVID-19 infection



	Molecular Tests	Antigen Tests	Antibody Tests
Also known as:	RT-PCR	Rapid diagnostic test	Serological test, serology, blood test, serology test
Applicable period:	From infection until at least 6 weeks after being symptom free	From infection until at least 6 weeks after being symptom free	As soon as 1 or 2 weeks after infection
How the sample is taken:	Nasal or throat swab (most tests) Saliva (a few tests)	Nasal or throat swab	Finger stick or blood draw
How long it takes to get results:	Several hours	Fast < 1h	Several hours or days
Is another test needed:	Not needed but can be repeated after negative test to reduce false negative result.	Positive results are usually accurate but negative results may need to be confirmed with a molecular test.	Sometimes a second antibody test is needed for accurate results.
What it shows:	Active coronavirus infection (i.e. **presence of SARS-CoV-2**)	Active coronavirus infection (i.e. **presence of protein fragments of SARS-CoV-2**)	If you've been **infected by coronavirus in the past**
What it can't do:	Show if you ever had COVID-19 or were infected with the coronavirus in the past. Show if you are currently infectious.	Definitively rule out active coronavirus infection. Antigen tests are more likely to miss an active coronavirus infection compared to molecular tests. Your health care provider may order a molecular test if your antigen test shows a negative result but you have symptoms of COVID-19.	Diagnose active coronavirus infection at the time of the test or show that you do not have COVID-19

Sources:
https://www.fda.gov/consumers/consumer-updates/coronavirus-testing-basics
https://www.sciencemediacenter.de/alle-angebote/fact-sheet/details/news/verlauf-von-covid-19-und-kritische-abschnitte-der-infektion/
https://www.apotheken-umschau.de/Coronavirus/Corona-Nachweis-Die-Testverfahren-im-Ueberblick-558071.html#Die-Testverfahren-im-Ueberblick:

In the press

This section aims at summarizing trending headlines with regards to COVID-19. The collection does not aim at being comprehensive and we would like to point out that headlines and linked articles are no scientific material and for information purposes only. The headlines and linked articles do not reflect NATO's or NATO MilMed COE FHPB's view. Feedback is welcome!

22nd March 2021
Aljazeera
COVID's lost learning: 70 million children face reading crisis
https://www.aljazeera.com/news/2021/3/22/due-to-covid-19-over-half-of-the-world-ten-years-wont-be-able

24th March 2021
BBC
Coronavirus: Domestic abuse an 'epidemic beneath a pandemic'
https://www.bbc.com/news/uk-56491643

19th March 2021
DW
AstraZeneca: German team discovers thrombosis trigger
https://www.dw.com/en/astrazeneca-german-team-discovers-thrombosis-trigger/a-56925550

25th March 2021
BBC
Middle-aged women 'worst affected by long Covid', studies find
https://www.bbc.com/news/health-56509340

24th March 2021
Aljazeera
India devotees celebrate Holi festival, ignore COVID restrictions
https://www.aljazeera.com/gallery/2021/3/24/india-devotees-ignore-restrictions-celebrate-holi

24th March 2021
The Guardian
Rapid lateral flow tests 'should not be used for test and release'
https://www.theguardian.com/world/2021/mar/24/covid-rapid-lateral-flow-tests-should-not-be-used-for-test-and-release

24th March 2021
SPIEGEL international
Doctors Warn of Illness in Children Triggered By COVID-19
https://www.spiegel.de/international/germany/doctors-warn-of-illness-in-children-triggered-by-covid-19-a-73481e22-c238-4daa-8908-5aa8b9c35b40

25th March 2021
The Guardian
New coronavirus variant, described as 'double mutant', reported in India
https://www.theguardian.com/world/2021/mar/25/new-coronavirus-variant-described-as-double-mutant-reported-in-india

24th March 2021
The Guardian
Seven in 10 UK Covid patients still affected months after leaving hospital
https://www.theguardian.com/world/2021/mar/24/seven-in-10-uk-covid-patients-still-affected-months-after-hospital