Force Health Protection Branch
NATO MilMed COE
Munich

# Short Update 36a
# COVID-19
# Coronavirus Disease
# 11th of September 2020

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## GLOBAL
**28 156 033**
Confirmed cases
19 010 150
recovered
909 830 deaths

## USA
(new cases/day 35 778)
↗
**6 357 690**
confirmed cases
2 401 282 recovered
191 233 deaths

## Brazil
(new cases/day 28 575)
↘
**4 238 446**
confirmed cases
3 657 701 recovered
129 522 deaths

## India
(new cases/day 87 494)
↗
**4 562 414**
confirmed cases
3 542 663 recovered
76 271 deaths

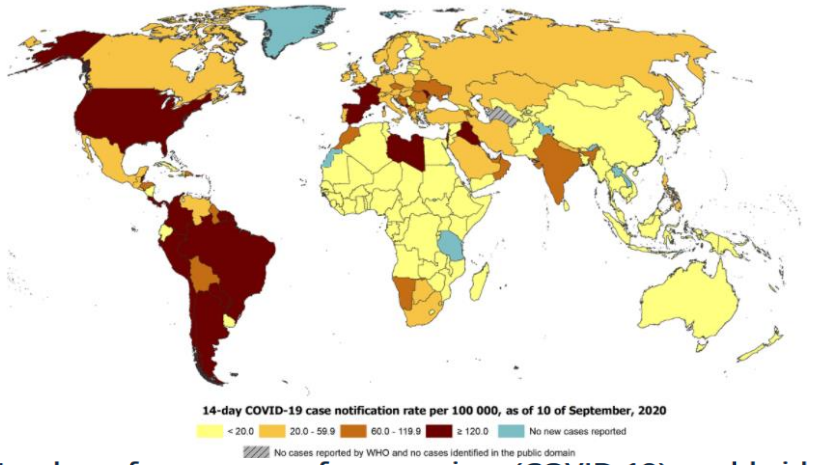
**News:**

- The beginning flu season and the corona pandemic, which is ongoing at the same time, present doctors with special challenges. Due to the comparable symptoms, it is initially difficult to say whether someone has the flu or an infection with the COVID-19 disease caused by the Sars-CoV-2 coronavirus. That is why the WHO and other health institutes strongly recommend getting vaccinated against seasonal influenza this year.
- The British-Swedish pharmaceutical company **AstraZeneca** has temporarily suspended its clinical tests of a corona vaccine on a voluntary basis because a subject has unexplained health problems. Interruptions in clinical trials of potential vaccines are not uncommon.
- **International Rescue Committee (IRC):** Warns of the further spread of the coronavirus after the fires in the Moria refugee camp on the Greek island of Lesbos. At least 35 people in the overcrowded camp had previously tested positive for the Sars-CoV-2 virus. Safe accommodation must now be set up and corona mass tests carried out.
- At a WHO meeting, the **United Nations** Secretary-General asked the international community to provide research funding for vaccine development. Around 35 billion dollars would be needed to achieve the necessary “quantum leap”. The **WHO**, however, warns again against purchase agreements between individual countries and vaccine-developing pharmaceutical companies. This approach could undermine equal access to vaccines worldwide.
- **WHO’s** health emergencies online learning platform: OpenWHO.org.

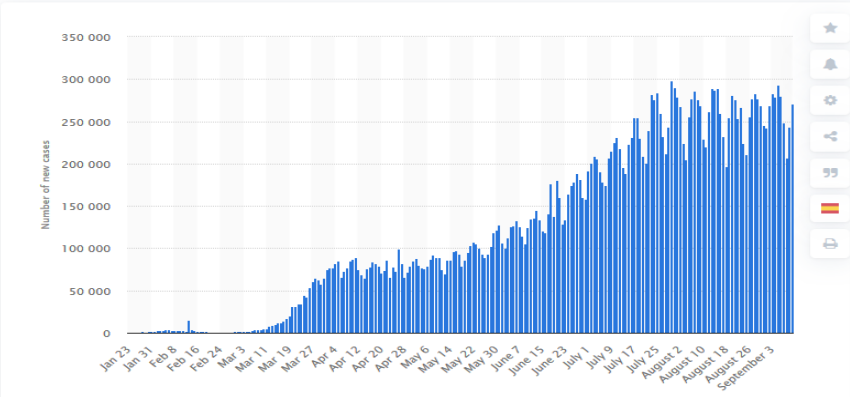
- Find Articles and other materials about COVID-19 on **our** website here.
- Please use **our** online observation form to report your lessons learned observations as soon as possible here.

**Topics:**

- **Global situation**
- **Subject in Focus:** The long-term impact of school closures
- **Conflict and Health:** Update Sudan
- **In the press**




Number of new cases of coronavirus (COVID-19) worldwide 10, 2020, by day






## EUROPE
**4 257 689**
confirmed cases
2 371 550 recovered
218 874 deaths

## Russia
(new cases/day 5 130)
→
**1 042 836**
confirmed cases
859 691 recovered
18 207 deaths

## SPAIN
(new cases/day 9 376)
↗
**554 143**
confirmed cases
150 376 recovered
29 699 deaths

## GBR
(new cases/day 2 532)
↗
**358 138**
confirmed cases
not reported
recovered
41 608 deaths

# Global Situation

Mapping global trends in vaccine confidence

A study of the London School of Hygiene Tropical Medicine published in the Lancet on 10th September is mapping vaccine confidence across 149 countries between 2015 and 2019.

Therefor the scientists used data from 290 surveys done between September, 2015, and December, 2019, across 149 countries, and including 284 381 individuals.

***Findings***

Between November, 2015, and December, 2019, the scientists estimate that confidence in the importance, safety, and effectiveness of vaccines fell in Afghanistan, Indonesia, Pakistan, the Philippines, and South Korea. They found significant increases in respondents strongly disagreeing that vaccines are safe between 2015 and 2019 in six countries: Afghanistan, Azerbaijan, Indonesia, Nigeria, Pakistan, and Serbia. Signs have been found that confidence has improved between 2018 and 2019 in some EU member states, including Finland, France, Ireland, and Italy, with recent losses detected in Poland. Confidence in the importance of vaccines (rather than in their safety or effectiveness) had the strongest univariate association with vaccine uptake compared with other determinants considered. When a link was found between individuals' religious beliefs and uptake, findings indicated that minority religious groups tended to have lower probabilities of uptake.

*Source: The Lancet*

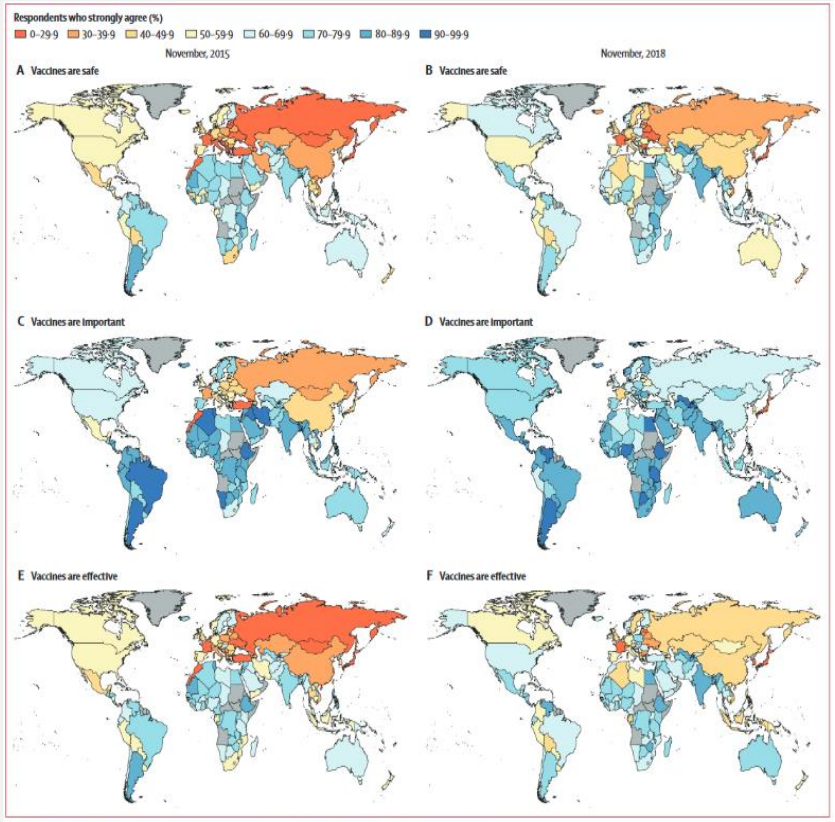



**Figure 1: Global trends in perceptions towards the safety of vaccines in November, 2015, and November, 2018**
Figure shows model-based estimates of the percentage of respondents strongly agreeing that vaccines are safe (panels A, B), important for children to have (panels C, D), and effective (panels E, F) in November, 2015, and November, 2018. No data were available for countries in grey.

In **India** the number of new cases reported daily rises to new record levels every day. Around 96,000 Indians are currently infected with the virus every day.

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In view of the continuing unchecked spread in the country, the **Brazilian** government wants to test the Russian vaccine Sputnik V as part of a phase III study on 500 volunteers. If the results show a benefit, the government plans to purchase 50 million doses of vaccine.

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664 new infections were registered in **Austria** on Thursday. This is the largest increase in a day since March. More than half of the new infections were reported in the federal capital Vienna.

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In **France**, almost 10,000 new infections were recorded within 24 hours. The highest number since the beginning of the pandemic. A tightening of the corona measures is currently being discussed. Most recently, the tests for the virus were also significantly expanded. 48,542 infections were found in one million tests within a week.

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**The Czech Republic** reports a record number of new infections every day: 1164 cases were added on Tuesday, as the Ministry of Health announced. The previous maximum value within 24 hours was just under 800. The recent increase is also likely to be related to the end of the summer vacation and the return of numerous vacationers.

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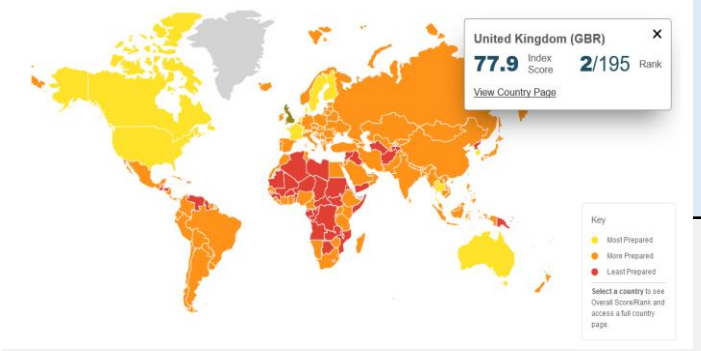
The corona numbers on **Mallorca, Spain** are increasing - especially in the working-class district of Son Gotleu. The regional government has now imposed a lockdown. As of today, the approximately 23,000 people affected are only likely to leave their neighborhood to go to work, a doctor or a hospital, school or other educational institution, or to look after people in need of care. Shops and cafes should remain open with half the number of usual places. Bars must close by 10 p.m. at the latest. The restrictions initially apply for two weeks.

In **Spain** there does not seem to be a direct connection between easing measures and the number of cases: According to the Stringency Index, Spain has eased the measures in the country less than other countries, and is still faced with much higher numbers of infections. A month ago, the daily coronavirus infection numbers in Spain had risen to over 3000 again. Now over 8 500 people are infected every day in Spain, more than in March or April.

# Global Situation




**Great Britain:**

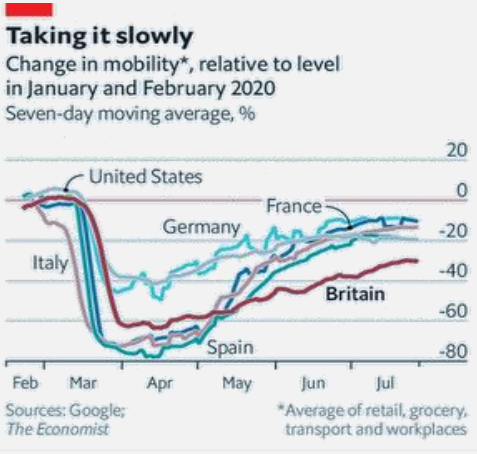
In line with developments in many other nations, Great Britain is also reporting an increasing number of cases. At the same time, the authorities report that the current increase is associated with a disproportionately high infection rate among the younger population. Officials are already warning those affected to adhere to social distancing measures and to avoid family visits whenever possible in order to protect older people and risk groups from infection.

So far, the country has been able to prevent a second wave of spreading, which i.a. also the introduction of a new tracking system, the so-called "test-and-trace", seems owed. In the meantime, more tests are carried out there on 1,000 residents than in FRA or DEU, for example. But the British mentality could also have done something to contain the pandemic. Despite the lifting of restrictions, many people still work from home; Mobility data shows that passenger transport is still a long way from pre-pandemic levels. Overall, the GBR population shows a much more risk-conscious behavior than their European neighbors.

However, the government is sticking to its plans to hold the new school year in educational institutions and universities mainly in face-to-face phases. This assessment is supported by a recently published study in which the antibody titers were determined in around 12,000 teachers and primary school children. It was shown that antibodies against SARS-CoV-2 can already be detected in around 11% of the children and 13% of the teachers, which indicates that the risk of infection is similar in both age groups.

At the same time, no significant difference could be determined between students who were taught more about home schooling and those who completed more attendance phases. This could be an indication that the main transmission in children takes place in the home / private environment and depends primarily on the transmission risk in the respective residential environment.

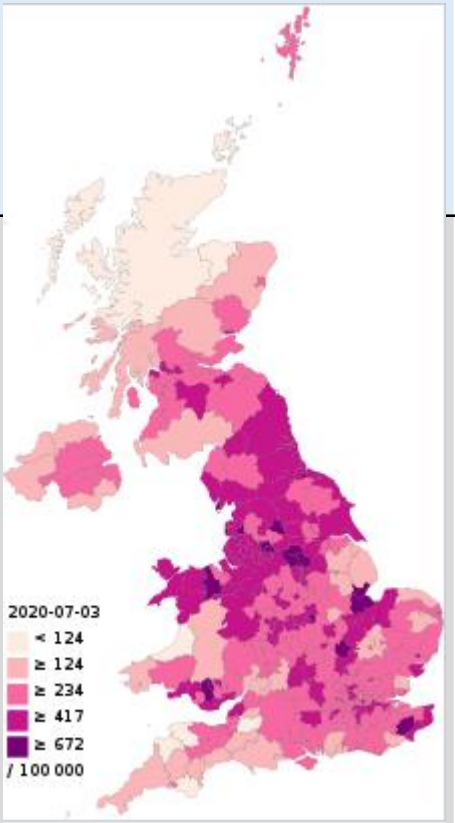
However, the researchers continue to recommend large-scale studies and close monitoring of the number of infections, since universities are a special environment and increasing numbers of cases are to be expected in this age group; also because young people continue to underestimate the risks of COVID-19 disease and follow containment measures less consistently.

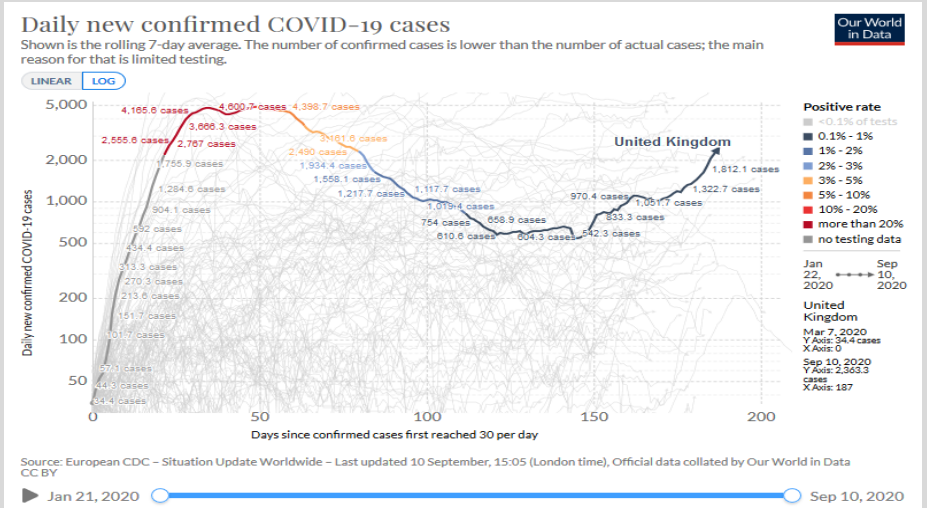



At the same time, the GBR government has started to radically restructure the public health system in the country. The authority "Public Health England" (PHE) is completely dissolved and is to be transferred to a "National Institute for Health Protection"; The well-known Joint Biosecurity Center is also included.

Given the ongoing pandemic and the fact that PHE was only founded in 2013 through a merger of 129 organizations, the decision raises questions. It is assumed that the authority was overwhelmed by the effects of the SARS-CoV-2 outbreak in view of the multitude of tasks, which ranged from reducing lifestyle-associated diseases to monitoring food quality. Those responsible are accused of failures, particularly in the area of outbreak tracking and the provision of tests.

The new facility is to be oriented more closely to the powers of the DEU national center for public health, the Robert Koch Institute. However, experts point out that the UK health system lacks the federal orientation of the DEU structure and therefore less on-site competencies, analogous to the DEU health authorities, can be used. According to experts, it must be expected that the dissolution of the PHE will at least make fighting the pandemic in the country more difficult.




Source:

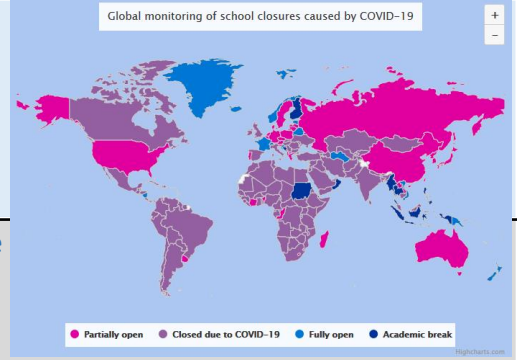
https://www.bbc.com/news/uk-54050342

https://www.bbc.com/news/health-54025708

https://www.economist.com/britain/2020/09/03/in-england-reopening-has-not-been-the-disaster-many-feared

https://www.economist.com/britain/2020/08/20/britains-government-axes-public-health-england

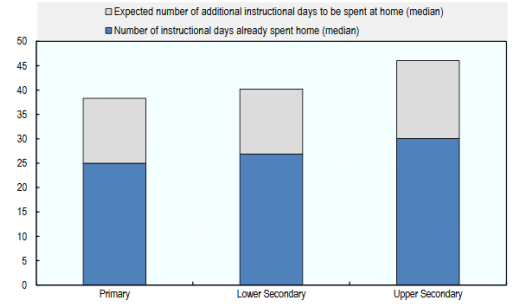
# Subject in Focus
## The long-term impact of school closures




The COVID-19 crisis has forced school closures in 188 countries, heavily disrupting the learning process of more than 1.7 billion children, youth, and their families. With the pandemic slowing down, governments are now developing the next steps of their strategy to cope with a crisis of an unprecedented scope. In many countries, it implies to plan the safe reopening of schools, and it has taken various forms. Some countries, such as France or Germany, have already welcomed back students, while others, such as Spain or Italy, will maintain the school gates closed until September. Despite these different reopening timelines that reflect national preferences and contexts, there is a broad consensus on the need to analyse and evaluate the consequences of school closures.

In the OECD-Harvard Graduate School of Education Survey, the impact of school closures on education continuity was estimated to be at least 2 months of instruction for half of the primary and secondary school students (Figure1). During this time, distance-learning solutions such as online classrooms, TV and radio broadcasts, and computer-assisted learning were implemented to bridge the gap between schools and learners, but the overall impact on learning remains uncertain.

**Figure 1. Impact of school closures on education continuity, May 2020**

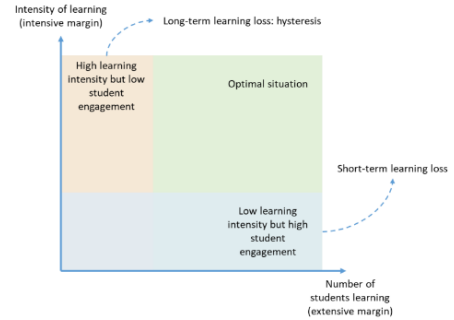



During the COVID-19 crisis, and in the absence of traditional schooling, we expected that levels of learning would not match what face-to-face teaching would have achieved. For instance because it takes time to adapt and switch to distance-learning, international reports already highlighted the difficulties schools face to integrate the technologies of information and communication into the classroom .This potential learning loss is determined by two concurring factors:

1. How much students have learnt during school closures
2. How many students who continued to learn during the school closures

This risk, acknowledged worldwide (Saavedra, 2020[8]), prompts the existence of a potential hysteresis of the COVID-19 crisis in education as some students went off the grid during the school closures (Figure2).It stems from the many elements, often linked to the socio-economic background, leading to a withdrawal from the school system that will induce a long term impact on students' outcomes. Such elements encompasses for instance

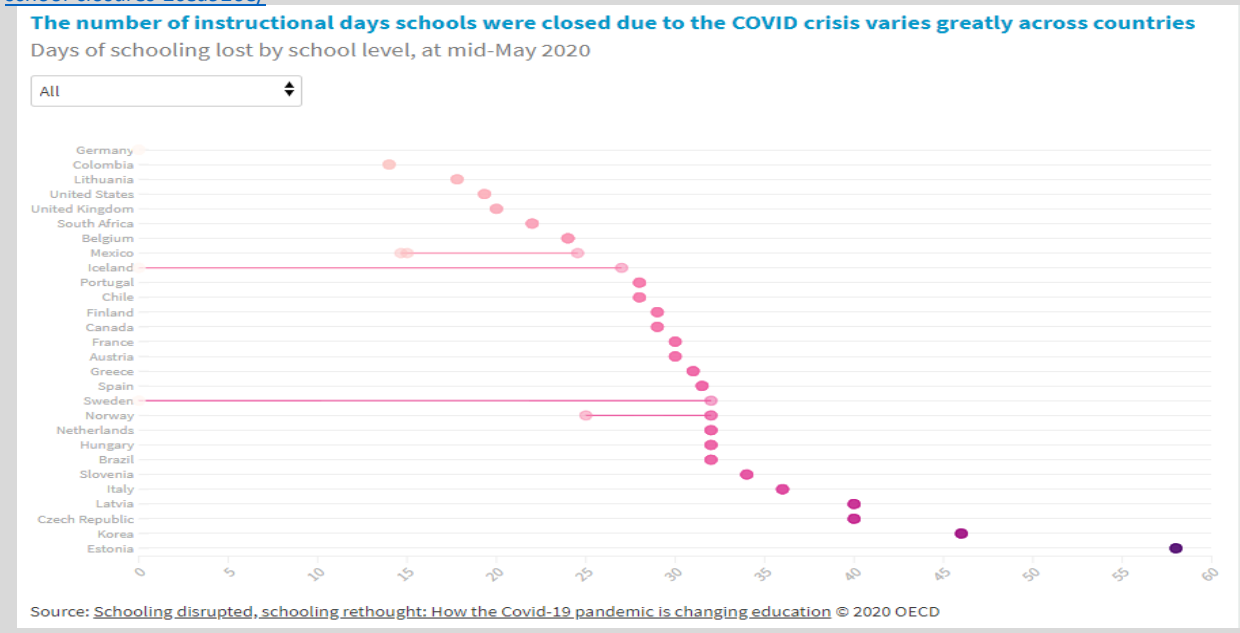
**Figure 2. A theoretical model for learning loss during school closure**




the struggle some students face to maintain their learning pace from home due to inadequate resources; the erosion of their basic academic skills due to lack of practice; the difficulty in re-engaging with education activities; their demotivation as they fall further behind; and the curbing of their educational aspirations due to the uncertainty of the learning environment. Given the critical role proper IT resources and parental involvement have played in ensuring education continuity during the crisis, the hysteresis induced by school closures maybe more prevalent among students from less privileged backgrounds.

Against this backdrop, governments should not solely focus on the short-term effects of the 2 months of disrupted learning, which may fade out by the time students complete their school education. The policy focus should be seton keeping students engaged in learning to limit hysteresis, the long term impact on students' outcomes, which also potentially aggravates inequalities in education. This requires to pay careful attention to the indicators that will determine how the COVID-19 crisis will influence students' outcomes in the long term, such as the curbing of their educational aspirations and in extreme cases, their dropping-out rate.

Source: https://www.oecd.org/coronavirus/policy-responses/education-and-covid-19-focusing-on-the-long-term-impact-of-school-closures-2cea926e/



In cooperation with Bundeswehr HQ of Military Medicine
Translated by FHPB NATO MILMED COE

# Conflict & Health
# UPDATE Sudan

## Sudan

**26.2** Index Score **163**/195


| | COUNTRY SCORE | AVERAGE SCORE* |
|---|---|---|
| **PREVENTION** | **31.8** | **34.8** |
| Antimicrobial resistance (AMR) | 83.3 | 42.4 |
| Zoonotic disease | 2.3 | 27.1 |
| Biosecurity | 0 | 16.0 |
| Biosafety | 0 | 22.8 |
| Dual-use research and culture of responsible science | 0 | 1.7 |
| Immunization | 92.1 | 85.0 |
| **DETECTION AND REPORTING** | **7.0** | **41.9** |
| Laboratory systems | 16.7 | 54.4 |
| Real-time surveillance and reporting | 10 | 39.1 |
| Epidemiology workforce | 0 | 42.3 |
| Data integration between human/ animal/environmental health sectors | 0 | 29.7 |
| **RAPID RESPONSE** | **37.3** | **38.4** |
| Emergency preparedness and response planning | 0 | 16.9 |
| Exercising response plans | 0 | 16.2 |
| Emergency response operation | 33.3 | 23.6 |
| Linking public health and security authorities | 0 | 22.6 |
| Risk communication | 75 | 39.4 |
| Access to communications infrastructure | 58.9 | 72.7 |
| Trade and travel restrictions | 100 | 97.4 |

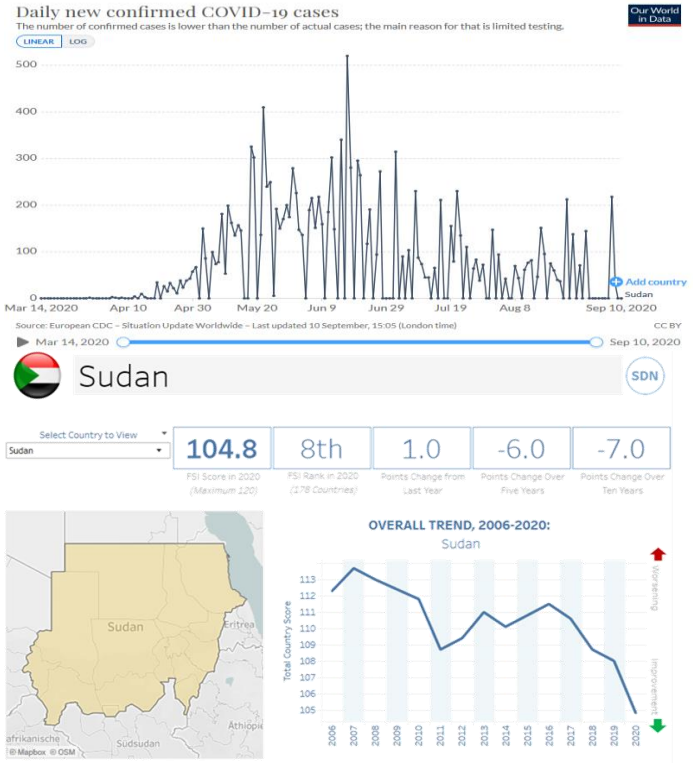
| | COUNTRY SCORE | AVERAGE SCORE* |
|---|---|---|
| **HEALTH SYSTEM** | **14.3** | **26.4** |
| Health capacity in clinics, hospitals and community care centers | 2.7 | 24.4 |
| Medical countermeasures and personnel deployment | 33.3 | 21.2 |
| Healthcare access | 27.7 | 38.4 |
| Communications with healthcare workers during a public health emergency | 0 | 15.1 |
| Infection control practices and availability of equipment | 0 | 20.8 |
| Capacity to test and approve new medical countermeasures | 25 | 42.2 |
| **COMPLIANCE WITH INTERNATIONAL NORMS** | **37.6** | **48.5** |
| IHR reporting compliance and disaster risk reduction | 50 | 62.3 |
| Cross-border agreements on public and animal health emergency response | 0 | 54.4 |
| International commitments | 25 | 53.4 |
| JEE and PVS | 25 | 17.7 |
| Financing | 50 | 36.4 |
| Commitment to sharing of genetic & biological data & specimens | 66.7 | 68.1 |
| **RISK ENVIRONMENT** | **33.0** | **55.0** |
| Political and security risks | 25 | 60.4 |
| Socio-economic resilience | 44.8 | 66.1 |
| Infrastructure adequacy | 25 | 49.0 |
| Environmental risks | 52.3 | 52.9 |
| Public health vulnerabilities | 22.4 | 46.9 |

*Average: all 195 countries
Scores are normalized (0–100, where 100 = most favorable)

www.ghsindex.org

**CONFLICT**: The state in Northeast Africa is influenced by multiple sources of conflict. Regardless of which factors are measured, the country ranks last in every possible ranking. According to the Fragile State Index, Sudan is one of the most unstable countries in the world; the mixture of geostrategic relevance and various political interests forms an extremely volatile situation.
A wide variety of factors play a role here: The population of Sudan is religious, ethnic and culturally divided. Mainly the two factions of the Arab-Islamic elite in the north face each other (National Congress Party) and the ethnic groups in the south that are culturally influenced by Sub-Saharan Africa (Sudanese People's Liberation Movement). Belonging to the group also has an influence on the social status of the individual. The geographical location also fuels the situation; as a bridge between the Horn of Africa and the Red Sea, the sub-Saharan states and the Arab-dominated North Africa, Sudan acts as a central hub for trade and transport. Mineral resources also play an important role; each of the conflicting parties is trying to incorporate the rich deposits of oil, iron, gold, uranium and marble into their sphere of influence. With the help of the proceeds from these raw material deposits, the parties finance the military conflict, the public or the population in no way benefit from the exploitation of the country.
The history of Sudan is marked by civil war and military coups, until 2019 the dictator Umar al-Bashir ruled, who reintroduced the Islamic Sharia as the first legal basis of the state. During his reign the worst reported incidents occurred: crimes against humanity, slave trade, recruitment of child soldiers, mass rape as a means of warfare, the war crimes and the subsequent famine in the Darfur region.
In the middle of last year al-Bashir was overthrown by his own military, and the ruling military council and the civilian opposition agreed on a transitional government. Many sides have expressed the hope that this is a first step on the way to democratic transition. There are currently promising peace negotiations with five rebel groups, which should lead to a peace treaty on October 2, 2020.
**HEALTH**: The decade-long civil war has massively hindered the development of a functioning public infrastructure in many regions. While the health system of Sudan is comparable to that of other sub-Saharan countries, the situation of civil war refugees and chronic poverty within the population are to be seen as the greatest challenges for health care. The distribution of medical resources between rural and urban areas shows a massive imbalance in favour of urban areas, a large part of the rural population does not have sufficient access to medical care. In addition to malaria, tuberculosis and cardiovascular diseases, malnutrition and deficiency symptoms still play an important role, especially in children <5 years of age.
The global COVID-19 pandemic naturally affects this country as well, with cases reported in all 18 provinces. Although the official figures (total cases: 13,437) are still in the low range for global comparison, the health system only has extremely limited test capacities, which is why a high number of unreported cases can be assumed. In addition, very few patients with a SARS-CoV-2 infection are likely to be recognized and diagnosed as such, as respiratory diseases are widespread. These poor conditions for a successful outbreak control are exacerbated by floods that have lasted for weeks on a scale of a century. The entire country has been declared a natural disaster area, the Ministry of Labour said after a meeting of the Security and Defense Council. At least 99 people were killed and 46 people were injured. Overall, more than half a million people are affected by the water masses. In addition, more than 100,000 houses are damaged or destroyed.

**CONCLUSION**: The Food and Agriculture Organization of the UN assumes that the combined effects of the pandemic in Sudan will have a clear, negative effect on the food situation, which is already difficult, as the necessary measures to contain both the availability and access to food will be , as well as Decrease distribution and public stability. It is positive that the government is endeavouring to work constructively and closely with the UN and non-state aid partners and is implementing a nationwide emergency plan together with these institutions. In addition to economic measures such as tax exemptions and transitional payments for all citizens, this also includes a strengthening of the health system in terms of parameters such as test capacities, contact tracing and risk communication. A successful fight against the outbreak remains a very big challenge under the general conditions that prevail in Sudan.











https://reports.unocha.org/en/country/sudan/
https://www.sueddeutsche.de/politik/sudan-friedensabkommen-unterzeichnet-1.5016138
https://www.zeit.de/gesellschaft/zeitgeschehen/2020-09/sudan-notstand-rekord-ueberschwemmung-darfur
https://www.who.int/workforcealliance/countries/sdn/en/
https://www.ghsindex.org/country/sudan/
https://www.crisisgroup.org/africa/horn-africa/sudan
https://reliefweb.int/country/sdn
https://fragilestatesindex.org/country-data/

# 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!

03rd September 2020
**Aljazeera**
## Your next phone or can of tuna may be flown on a passenger plane
https://www.aljazeera.com/ajimpact/phone-tuna-flown-passenger-plane-200903084723065.html

10th September 2020
**SPIEGEL international**
## Germany Braces for the Second COVID-19 Wave
https://www.spiegel.de/international/germany/cold-corona-comfort-germany-braces-for-the-second-covid-19-wave-a-dffa14d7-aab3-457c-9258-570f98b80fd6#

06th September 2020
**DW**
## Coronavirus: Germany gives India millions in aid, thousands of testing kits
https://www.dw.com/en/coronavirus-germany-gives-india-millions-in-aid-thousands-of-testing-kits/a-54828976

08th September 2020
**South China Morning Post**
## Coronavirus on chilled salmon may be infectious for over a week
https://www.scmp.com/news/china/science/article/3100637/coronavirus-chilled-salmon-may-be-infectious-over-week

11th September 2020
**Aljazeera**
## UN seeks 'quantum leap' in funding for coronavirus fight
https://www.aljazeera.com/news/2020/09/seeks-quantum-leap-funding-coronavirus-fight-200911000001885.html

10th September 2020
**The Guardian**
## Oxford Covid-19 vaccine is still possible this year, says AstraZeneca chief
https://www.theguardian.com/business/2020/sep/10/oxford-covid-19-vaccine-is-still-possible-this-year-says-astrazeneca-chief

11th September 2020
**South China Morning Post**
## Coronavirus: scientists find collision of pandemic and flu doubles Covid-19 transmission
https://www.scmp.com/news/china/science/article/3101048/coronavirus-scientists-find-collision-pandemic-and-flu-doubles

10th September 2020
**The Guardian**
## Covid-19 fears on Lesbos as thousands of refugees flee huge fires
https://www.theguardian.com/world/2020/sep/10/fears-of-covid-surge-on-lesbos-as-thousands-of-refugees-flee-huge-fires

# The new normal!


In some places, as cases of COVID-19 go down, some control measures are being lifted.

**But this doesn't mean we should go back to the 'old normal'.**
**If we don't stay vigilant and protect ourselves and others, coronavirus cases may go up again.**

If we stop following the key protective measures, coronavirus can come rushing back.

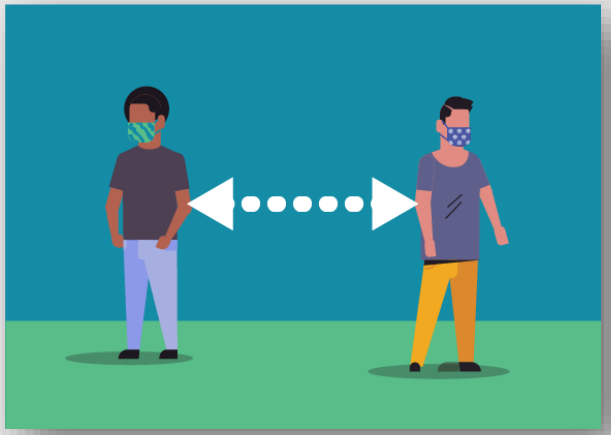
**Now, more than ever, it's important that we all follow our national health authority's advice and be part of helping to prevent coronavirus transmission.**

Wherever you are, you still need to protect yourself against COVID-19.

**Even as restrictions are lifted, consider where you are going and stay safe.**

# The perfect wave – why masks are still important

| | Mouth and nose protection | FFP2/FFP3 mask without valve | FFP2/FFP3 mask with valve |
|---|---|---|---|
| Protects wearer of mask | limited | ✓ | ✓ |
| Protects periphery | ✓ | ✓ | ✗ |



## NEW STUDY ON MOUTH NOSE PROTECTION AND SOCIAL DISTANCING

Unfortunately, in the epicenter of the new hot spots areas often enough people are seen who do not adhere to the still valid protective regulations such as social distancing and the correct wearing of a nose and mouth protection. It could be as simple as that - new studies show that these two measures make a significant contribution to reducing the probability of transmission.

In the case of protective masks with an advertised protective effect in connection with SARS-CoV-2, depending on the intended purpose, a distinction is made between two types:

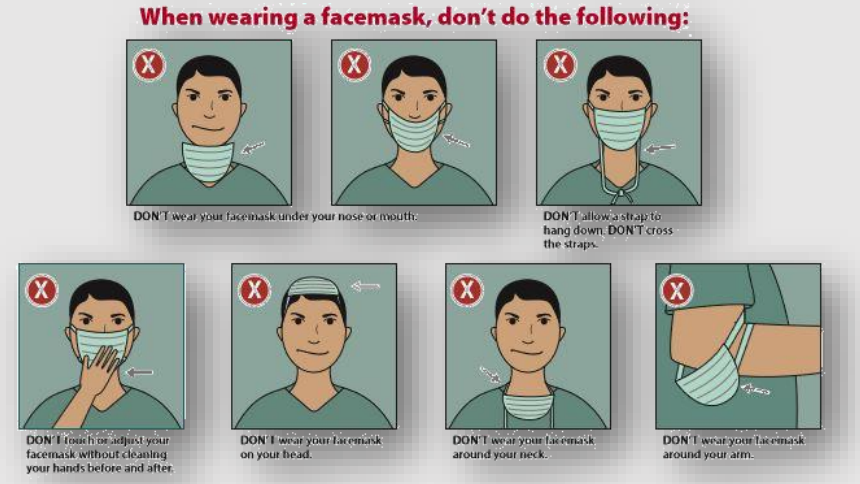
**Medical face masks (MNS; surgical (surgical) masks);** are primarily used for third-party protection and protect the person against the exposure of potentially infectious droplets of the person wearing the face mask. Corresponding MNS protect the wearer of the mask if the fit is tight, but this is not the primary purpose of MNS. This is e.g. used to prevent droplets from the patient's breathing air from getting into open wounds of a patient. Since, depending on the fit of the medical face mask, the wearer not only breathes in through the filter fleece, but the breathing air is drawn in as a leakage current past the edges of the MNS, medical face masks generally offer the wearer little protection against aerosols containing excitation. However, you can protect the mouth and nose area of the wearer from the direct impact of exhaled droplets from the other person as well as from pathogen transmission through direct contact with the hands.

**Particle-filtering half masks (FFP masks);** are objects of personal protective equipment (PPE) in the context of occupational safety and are intended to protect the wearer of the mask from particles, droplets and aerosols. The design of the particle-filtering half masks is different. There are masks *without an exhalation valve* and masks *with an exhalation* valve. Masks without a valve filter both the inhaled air and the exhaled air and therefore offer both internal and external protection, although they are primarily designed for internal protection only. Masks with valves only filter the inhaled air and therefore **offer no external protection!!!**

As a large number of unrecognized people move around in public spaces without symptoms, mouth and nose protection protects other people, thereby reducing the spread of the infection and thus indirectly reducing the risk of becoming infected

Due to the occasion, it should be pointed out again and again, also by executives, that the correct way of wearing the mask is essential to achieve maximum protection. The mask wrong, e.g. for example, wearing it under the nose means accepting a possible infection of others.

FFP2 / 3 masks are still considered deficient equipment and should be kept available for healthcare workers and emergency services.

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https://www.bfarm.de/SharedDocs/Risikoinformationen/Medizinprodukte/DE/schutzmasken.html

# Using Personal Protective Equipment (PPE) when caring for Patients with confirmed or suspected COVID-19

**Who needs PPE:**

**Patients** with confirmed or possible SARS-CoV-2 infection should wear a facemask when being evaluated medically

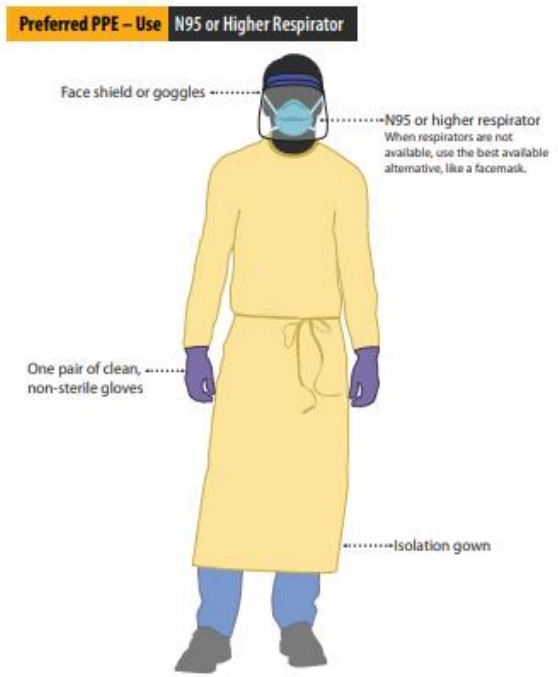
**Healthcare personnel** should adhere to Standard and Transmission-bases Precautions when caring for patients with SARS-CoV-2 infection. Recommended PPE is describe in the **Infection Control Guidance.**

Before caring for patients with confirmed or suspected COVID-19, healthcare personnel (HCP) must:

- Receive comprehensive training on when and what PPE is necessary, how to don (put on) and doff (take off) PPE, limitations of PPE, and proper care, maintenance, and disposal of PPE
- Demonstrate competency in performing appropriate infection control practices and procedures

**Remember:**

- PPE must be donned correctly before entering the patient area
- PPE must remain in place and be worn correctly for the duration of work in potentially contaminated areas
- PPE should not be adjusted during patient care and
- PPE must be removed slowly and deliberately in a sequence that prevents self-contamination





## Donning (putting on the gear):

1. **Identify and gather the proper PPE to don**. Ensure choice of gown size is correct.
2. **Perform hand hygiene using hand sanitizer**
3. **Put on isolation gown.** Assistance may be needed by other HCP
4. **Put on NIOSH-approved N95 filtering facepiece respirator of higher (use a facemask if a respirator is not available.**
   - **Respirator** straps should be placed on crown of head and base of neck. Perform a user seal check each time you put on the respirator.
   - **Facemask** should be secured on crown of head and base of nex. If mask has loops, hook them appropriately around your ears.
5. **Put on face shield or googles.**
6. **Put on gloves**
7. **HCP may now enter patient room**

## Doffing (taking off the gear):

1. **Remove gloves.** Ensure gloves removal does not cause additional contamination of hands.
2. **Remove gown.** Untie all tis. Some gown ties can be broken rather than untied. Do so in gentle manner, avoiding a forceful movement. Reach up to the shoulders and carefully pull gown down and away from the body.
3. **HCP may now exit patient room.**
4. **Perform hand hygiene.**
5. **Remove face shield or googles. Carefully remove face shield or googles by grapping the strap and pulling upwards and away from head. Do not touch the front of face shield or googles.**
6. **Remove and discard respirator.** Remove the bottom strap by touching only the strap and bring it carefully over the head. Grasp the top strap and bring it carefully over the head and then pull the respirator away from the face without touching the front of the respirator or facemask.
7. **Perform hand hygiene after removing the respirator/facemask**

Source: https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html