GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

Iechyd Rhyngwladol International Health

International Horizon Scanning and Learning to Inform Wales' COVID-19 Public Health Response and Recovery

Report 33, 10/09/2021

Canolfan Gydweithredol Sefydliad Iechyd y Byd ar Fuddsoddi ar gyfer Iechyd a Llesiant

World Health Organization Collaborating Centre on Investment for Health and Well-being

Overview

The International Horizon Scanning and Learning work stream was initiated as part of the COVID-19 public health response, to support response and recovery measures and planning in Wales.

The learning and intelligence is summarised in regular reports to inform decision-making. These may vary in focus and scope, depending on the evolving COVID-19 situation and public health/policy needs. The reports focus on COVID-19 international evidence, experience, measures, transition and recovery approaches. Evidence is provided to help understand and explore solutions for addressing the on-going and emerging health, well-being, social and economic impacts (potential harms and benefits) of COVID-19.

This work is aligned with and feeds into the Welsh Government Office for Science and into Public Health Wales Gold Command. It is part of a wider Public Health Wales' systematic approach to intelligence gathering to inform comprehensive, coherent, inclusive and evidence-informed policy action, which supports the Well-being of Future Generations (Wales) Act and the Prosperity for All national strategy towards a healthier, more equal, resilient, prosperous and globally responsible Wales.

Disclaimer: The reports provide high-level summary of emerging evidence from country experience and epidemiology; research papers (peer-reviewed/not); and key organisations' guidance/reports, including sources of information to allow further exploration. The reports do not provide detailed or in-depth data/evidence analysis. Due to the novelty of COVID-19 virus and the dynamic epidemiological situation, studies, data and evidence can be conflicting, inconclusive or out-of-date very quickly depending on country/other context.

In focus this week

- **Re-opening of educational settings**
- **The impact of COVID-19 on people with a disability**

Contents

At a glance: summary of international learning on COVID-19

"This crisis has exposed the many inadequacies and inequities in our education systems – from access to the broadband and computers needed for online education, and the supportive environments needed to focus on learning, up to the misalignment between resources and needs."[1] (OECD)

Re-opening of educational settings

- Recommendations to use **face-masks in the school setting are still common internationally** and are often coupled with other measures including vaccination, ventilation, hand hygiene and respiratory etiquette.
- **Ventilation is an important aspect in the return to the educational settings**, however, educational institutions may not have expertise in this area, and practical support in assessing airflow may be beneficial.
- Testing forms a crucial element of re-opening, with **speed of delivery of the COVID-19 test results being an important factor.**
- All of the advice for tertiary students includes **Universities helping international students understand the local restrictions and requirements** of their destination country to aid successful integration and minimise risk.
- Careful consideration should be given to **vaccine efficacy** of the vaccines received by international students in their home countries **against the current circulating strains in the destination country**. Further research into mixing vaccines and offering further vaccines to boost immunity may be necessary.

More information is summarised on pp. 4-16

The impact of COVID-19 on people with a disability

- People with a disability may face **greater risk of contracting COVID-19 and are also disproportionately impacted by service disruptions: this is a health equity issue**.
- International recommendations suggest a disability inclusive and human rights based COVID-19 response.
- People with a variety of disabilities **should be involved in developing COVID-19 recovery solutions** that meet their diverse needs.
- All **public health messaging should be fully accessible**, and communicated regularly.

More information is summarised on pp. 17-20

[1] the-impact-of-covid-19-on-education-insights-education-at-a-glance-2020.pdf (oecd.org)

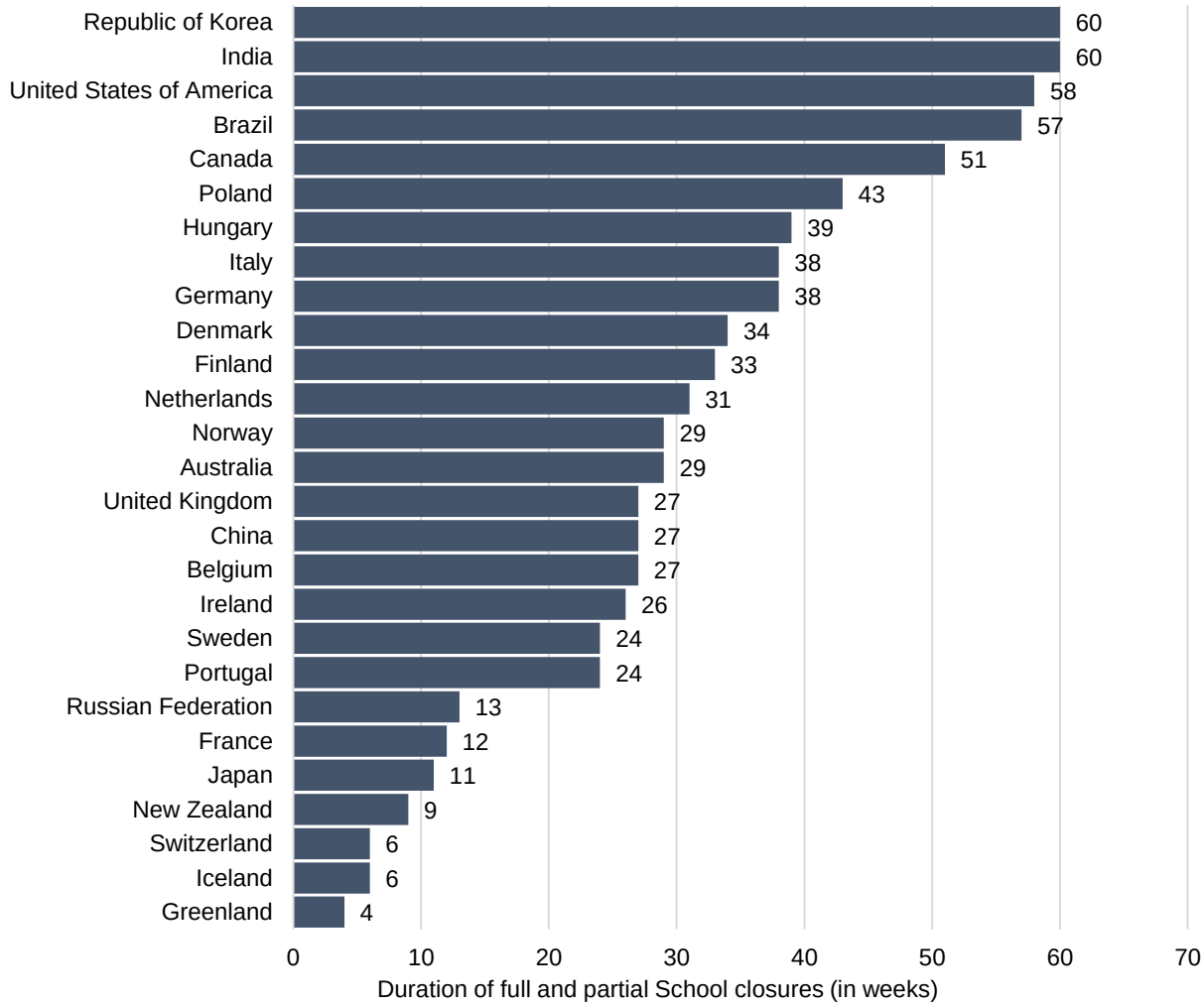
Re-opening educational settings

Overview: re-opening primary and secondary educational settings

The COVID-19 pandemic has caused unprecedented disruptions to education across the world. This disruption **impacts students in different ways** depending upon a range of factors including **age, level of study and socioeconomic background**.[2]

Figure 1 shows that the number of weeks of disruption by country. The Republic of Korea and India had the highest number of weeks where primary, secondary and higher education was disrupted. In contrast, Greenland had the fewest weeks disruption within these selected coutries. The United Kingdom (UK) had 27 weeks of disruption to education in this period.

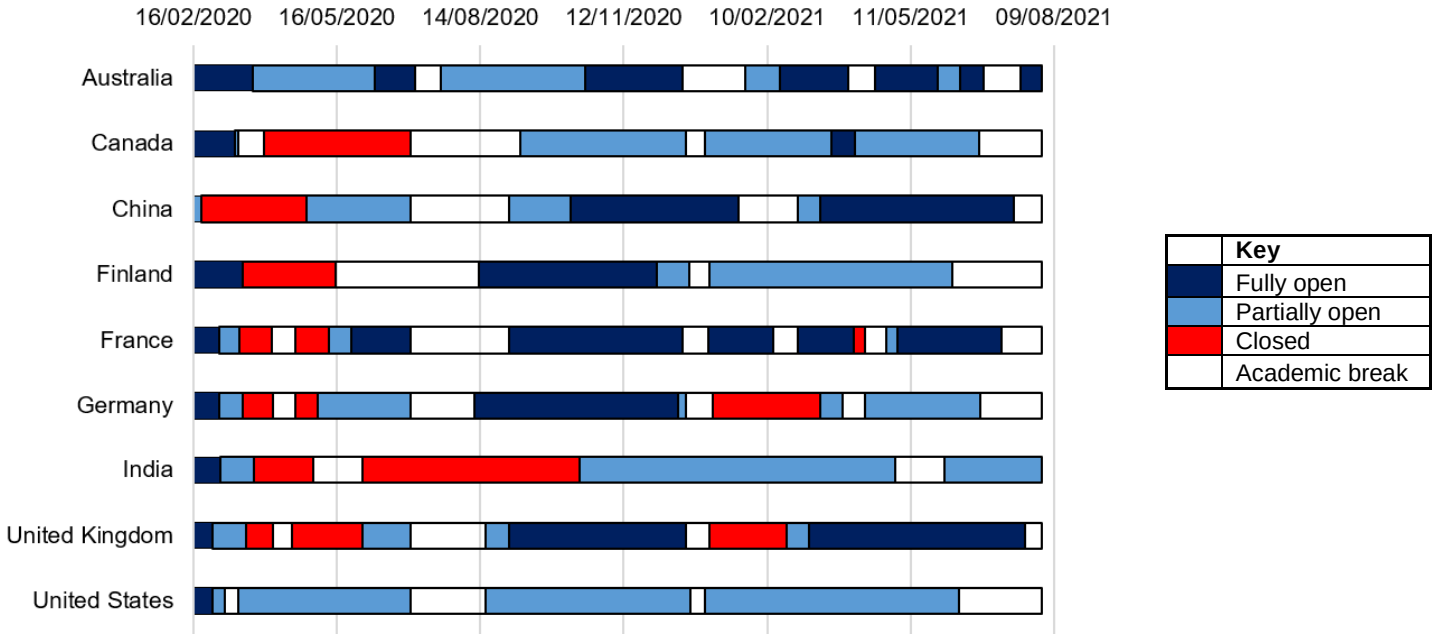
Figure 1: Total number of weeks where schools were either fully or partially disrupted between March 2020 and June 2021 (extracted on 31/08/2021)[3][4]



- Figure 2 provides more detail for some of the countries with regard to the type and timing of the disruption

[2] Education and the COVID-19 pandemic (springer.com)
[3] Figure correspond to number of learners enrolled at pre-primary, primary, lower-secondary, and upper-secondary levels of education [ISCED levels 0 to 3], as well as at tertiary education levels [ISCED levels 5 to 8]. Enrolment figures based on latest UNESCO Institute for Statistics data.
[4] https://en.unesco.org/covid19/educationresponse#schoolclosures

Figure 2: Timeline of the disruption for schools, 16/02/2020 – 31/07/2021 (extracted on 31/08/2021)[5][6]



From figure 2 it can be identified that amongst the selected countries:

- India closed schools nationwide for the longest period as a result of the pandemic
- The majority of the disruption in the United States (US) was partial
- The US and Australia did not close schools nationwide as a result of pandemic
- Countries such as Germany, France and the UK closed schools at similar times

Recommendations on school re-opening

Frameworks were provided by global organisations to help to inform decision-making around school re-opening and support the implementation process during the 2020/21 academic year, including:

- The United Nations (UN), United Nations Children's Fund (UNICEF), The World Bank, The World Food Bank and The UN High Commissioner for Refugees 'joint framework for re-opening schools', published in June 2020[7]
- The World Health Organization's (WHO) 'checklist to support schools re-opening', published in December 2020[8]

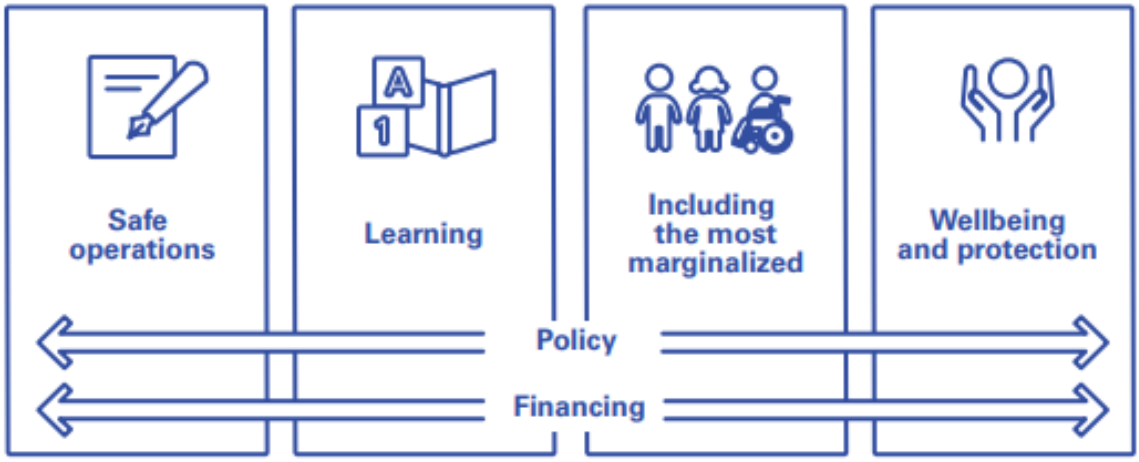
Since the publication of these guidelines, countries have developed their own guidance, but **these frameworks remain the most up to date global guidance to support the safe re-opening of educational services**

United Nation's framework for re-opening schools[9]

The joint framework was designed to be a flexible tool that is able to adapt to varying levels of COVID-19 infection. The framework identifies **6 key dimensions to assess the state of readiness for educational re-opening** with policy and finance creating an enabling environment to support the remaining four dimensions (figure 3):

[5] https://en.unesco.org/covid19/educationresponse#schoolclosures
[6] *Figure correspond to number of learners enrolled at pre-primary, primary, lower-secondary, and upper-secondary levels of education [ISCED levels 0 to 3], as well as at tertiary education levels [ISCED levels 5 to 8]. Enrolment figures based on latest UNESCO Institute for Statistics data.*
[7] Framework for Reopening Schools.pdf (unicef.org)
[8] Checklist to support schools re-opening and preparation for COVID-19 resurgences or similar public health crises (who.int)
[9] Framework for Reopening Schools.pdf (unicef.org)

Figure 3: The six key dimensions to assess the state of readiness for school re-opening[10]



The framework provides guidance on recommendations including physical distancing measures, attendance policies and the integration of remote learning.

World Health Organization's checklist to support school re-opening[11]

The WHO checklist lists 38 essential actions aimed to **guide school re-opening plans** and is intended to support existing WHO guidelines regarding COVID-19. The checklist is structured around **protective measures** related to hand hygiene and respiratory etiquette, physical distancing, use of masks in schools, environmental cleaning and ventilation and respecting procedures for isolation of all people with symptoms, and includes recommendations on:

- ✓ Remote education support
- ✓ Increased personal and environmental hygiene measures
- ✓ Physical distance protocols
- ✓ Ventilation
- ✓ Face mask use

Best practice[12]

The collaborative 'framework for re-opening schools' published a supplement in September 2020 which details **lessons learnt from the early stages of the pandemic** to share learning from countries across the globe to help strengthen educational re-opening plans. Emerging lessons include:

1. **Prioritising younger students**
   - ✓ Sweden closed secondary schools but kept pre-primary and primary schools open with safety measures throughout the pandemic
2. **Changes to exams**
   - ✓ Tunisia, Sierra Leone, and Malawi have allowed students studying for examinations to return to schools during closures, offering them weeks of remedial learning before exams
3. **Clear, flexible protocols**
   - ✓ Poland has given Principals the authority to suspend classes if outbreaks of COVID-19 occur in schools
4. **Simplified curriculum and amended academic calendars**
   - ✓ Liberia, Mozambique, and the Philippines have implemented a condensed curriculum to help learners catch up

[10] Framework for Reopening Schools.pdf (unicef.org)
[11] Checklist to support schools re-opening and preparation for COVID-19 resurgences or similar public health crises (who.int)
[12] New supplement to Framework for reopening schools (unesco.org)

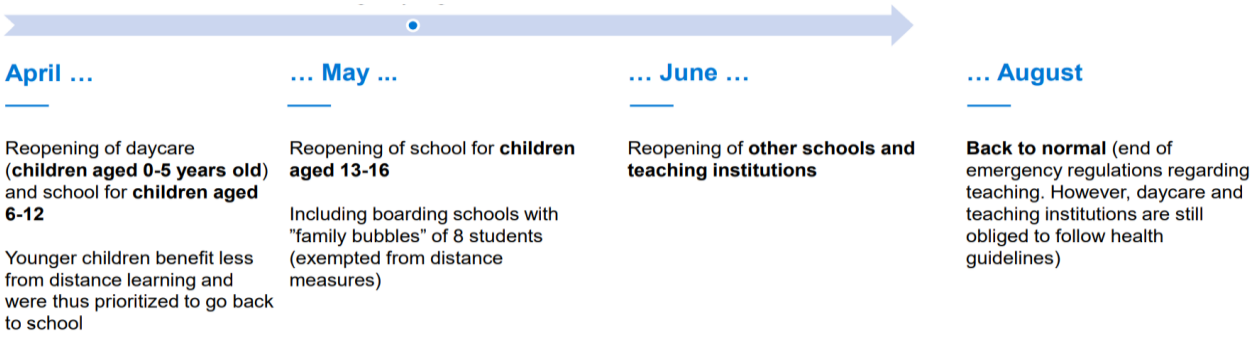
- ✓ Zambia has adjusted the academic calendar by shortening vacation periods for examination classes

5. **Managing student's psychosocial well-being**
   - ✓ Turkey has trained teachers in effective blended learning methods and provided phone-based psychosocial support to students
6. **Social distancing**
   - ✓ Singapore, UK and several provinces in Canada have been using the concept of 'classroom bubbles' to limit student interaction across groups
   - ✓ Denmark have utilized additional spaces for learning such as museums and sports halls to ensure safe distancing beyond physical school spaces

Case Study: re-opening schools in Denmark

- Demark was one of the first countries to begin lifting lockdown restrictions in 2020 and school re-opening was prioritised.[13] Denmark had **four phased re-openings** between April and August 2020[14] (figure 4)

Figure 4: Phased re-opening in Denmark (2020)[15]



- **Younger students** who were seen as less able to engage in remote learning **were prioritised and returned to school first**, along with students sitting examinations
- Regulations and guidelines were reviewed regularly throughout, at times only a few weeks apart[16]
- **Denmark's school re-opening process has been characterised by high flexibility**:
  - ✓ This gave municipal councils and school leaders the ability to develop their own plans based upon national guidelines and recognised that not all schools would be ready to re-open at the same time
- Families were allowed to decide when to send their children back to school

The following changes were implemented upon re-opening:

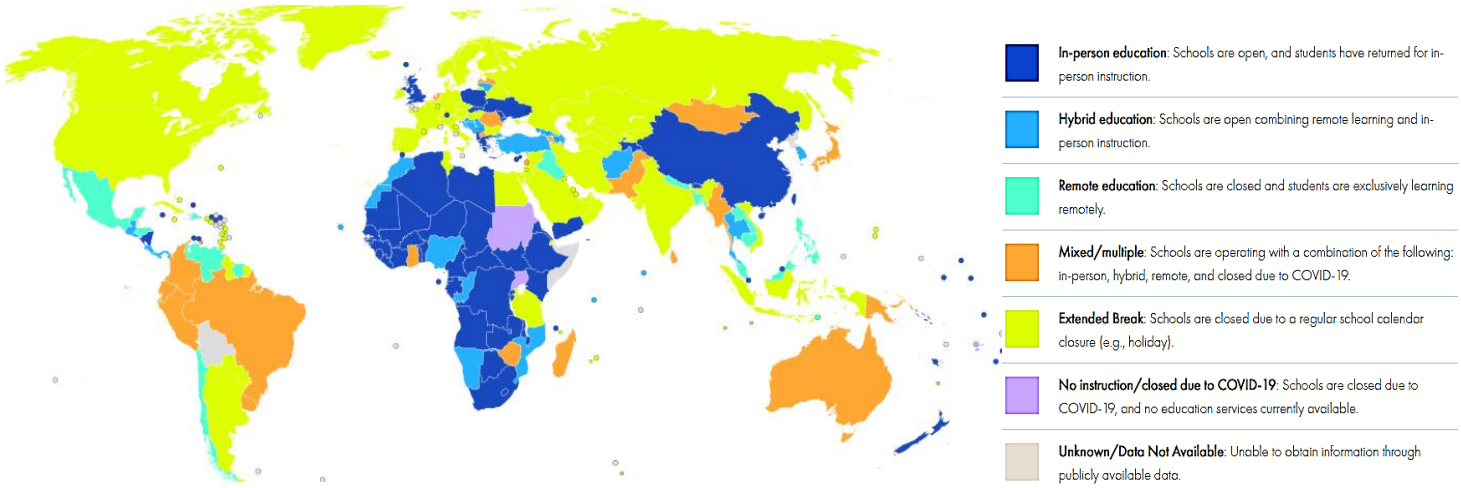
- ✓ **Student arrivals were staggered**, classes were divided into **smaller groups**, **holding classes outside where possible**
- ✓ **Frequent cleaning** and **enhanced hygiene** awareness
- ✓ Significant **changes to certain subjects**, including food science to be focused upon nutrition rather than cooking and **sports lessons to be focused on outdoor, non-contact sports**
- ✓ **End of year assessments were cancelled** as it was recognised that not all students receive equal learning from remote learning and **to avoid increasing inequality amongst students from more deprived backgrounds**[17]

[13] PSBriefingPaperReopeningOfSchoolsInDenmark.pdf (gla.ac.uk)
[14] COVID-19 response, health, safety and resurgence protocols: ensuring safe school reopening, operation and resurgence planning - UNESCO Digital Library
[15] COVID-19 response, health, safety and resurgence protocols: ensuring safe school reopening, operation and resurgence planning - UNESCO Digital Library
[16] COVID-19 response, health, safety and resurgence protocols: ensuring safe school reopening, operation and resurgence planning - UNESCO Digital Library
[17] Reopening the World: Reopening schools—Insights from Denmark and Finland (brookings.edu)

Current re-opening strategies

The World Bank, UNICEF and the John Hopkins University eSchool+ initiative have jointly produced the **'COVID-19 Global Education Recovery Tracker'** which provided up to date data to capture ongoing information regarding schools, students and teachers.[18] Figure 5 illustrates the current modalities of teaching across the globe, as of 17th August 2021.

Figure 5: Education modalities at country level for primary, lower secondary and upper secondary level (August 17th 2021)[19]



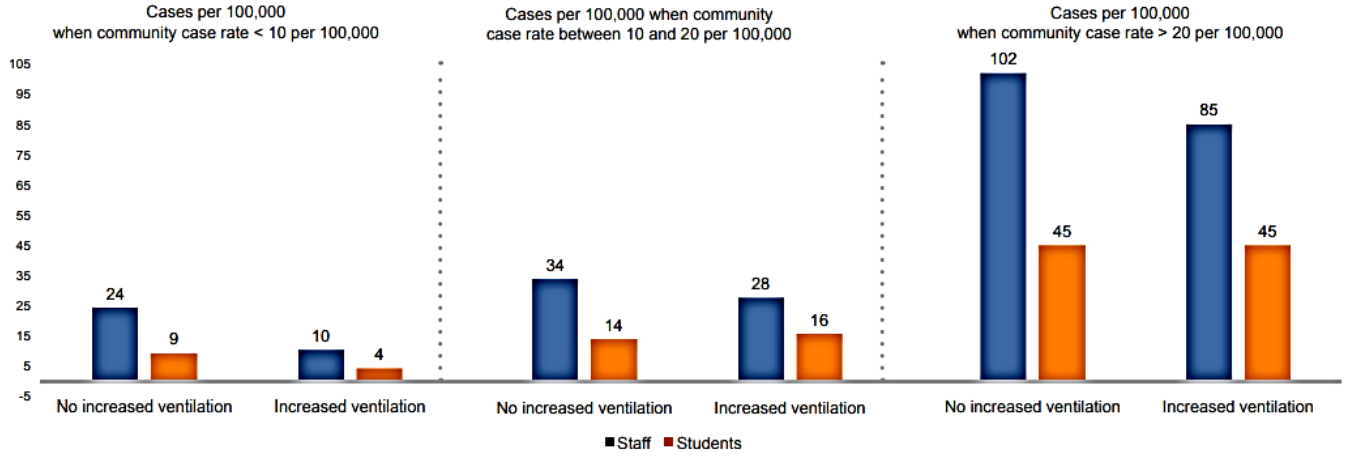
Ventilation

The COVID-19 virus is primarily an airborne disease.[20] This has generated an interest into the role **that air quality and ventilation can play in minimising the risk of contracting the virus.**

- The European Centre for Disease Prevention and Control emphasises the benefits of heating, ventilation and air conditioning systems (HVAC) that have the **potential to decrease airborne transmission of the virus** and the **negative effects poor ventilation** can have[21]
- An investigation into two COVID-19 outbreaks in China considered **air-conditioning systems using a re-circulating mode as a probable aid to transmission**[22]
- The Centers for Disease Control and Prevention (CDC) maintain that **good ventilation can reduce the number of virus particles in the air,** thus reducing the risk of contracting the COVID-19 virus.[22]
- The CDC guidance states, **windows and doors should be open** where safe, **child-safe fans can be installed close to open windows** and **heating, ventilation and air conditioning systems should be set at maximum ventilation.**[23]
- Figure 6 suggests **lower levels of infection in schools that have taken measures to increase ventilation** in both staff and students (when there are lower levels of COVID-19 in the community) and in staff only (when there are higher rates of COVID-19 in the community).

[18] Maps (covideducationrecovery.global)
[19] Maps (covideducationrecovery.global)
[20] https://www.bmj.com/content/373/bmj.n913
[21] Heating, ventilation and air-conditioning systems in the context of COVID-19: first update (europa.eu)
[22] https://www.ecdc.europa.eu/sites/default/files/documents/Heating-ventilation-air-conditioning-systems-in-the-context-of-COVID-19-first-update.pdf
[23] Ventilation in Schools and ChildCare Programs (cdc.gov)

***Figure 6: Rates of infection with and without increased ventilation*[24]**

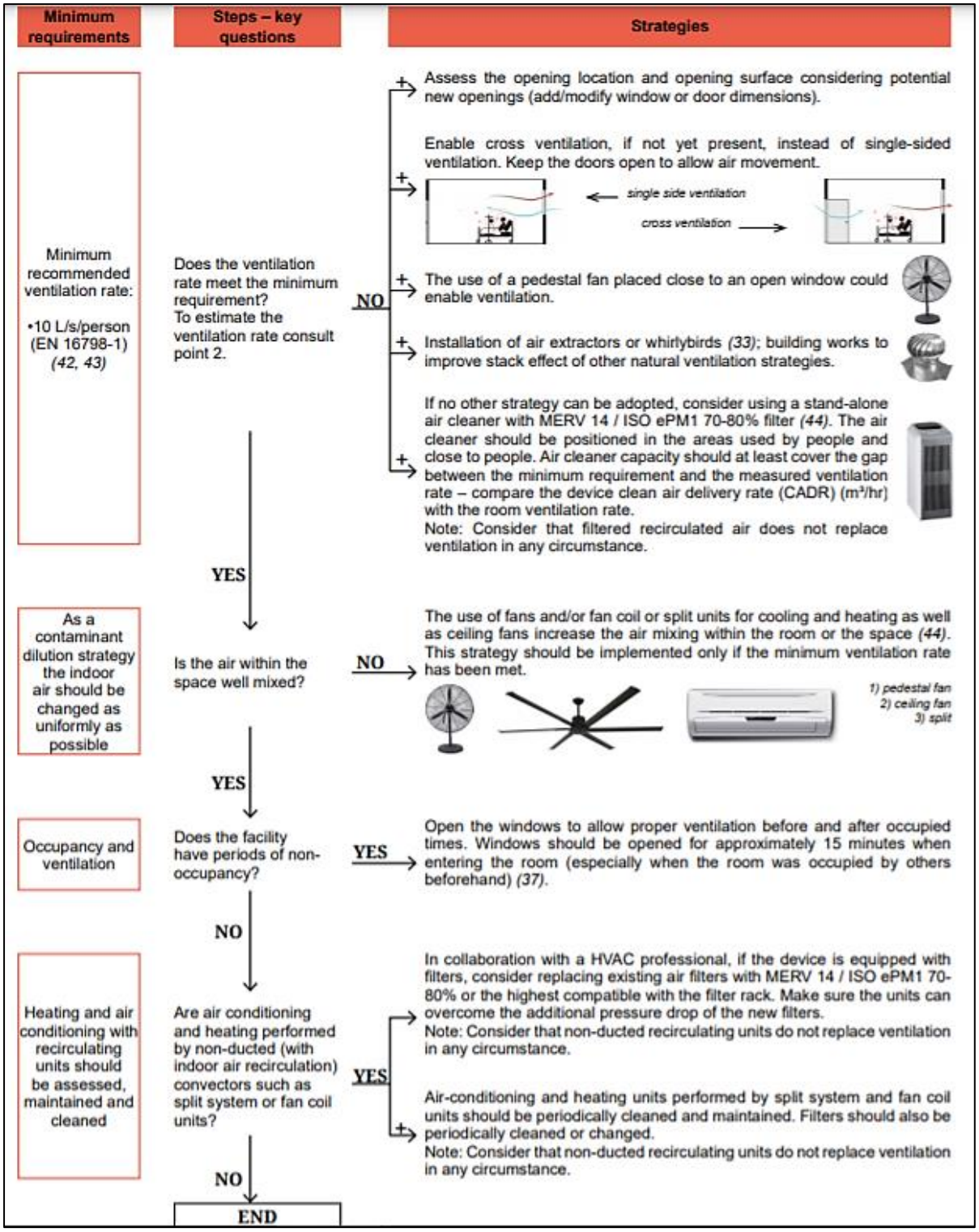


Source: National COVID-19 School Response Dashboard (United States), March 7, 2021.

- The Federation of European Heating, Ventilation and Air Conditioning Associations (REHVA) notes that ventilation in Europe can present challenges, as it is not always practical for doors and windows to be left open,[25] they recommend:
  - ✓ **Implementing mechanical ventilation systems** as these can provide effective air exchange at all times **when natural ventilation is not possible**
  - ✓ **Utilising CO^2 monitors to assess air quality** and indicate where and when extra ventilation is needed
- It has recently been reported that **in the UK over 3,000 CO^2 monitors are being made available to schools ahead of the September re-opening**.[26]
- The WHO has published a **'roadmap to improve and ensure good indoor ventilation in the context of COVID-19'**[27] including detailed guidance for 'non-residential settings' such as public and private indoor spaces, including schools and universities (figure 7)

[24] Transmission-22-5-2021.pdf (worldbank.org)
[25] Copy of Version 4.0 (rehva.eu)
[26] Covid: CO2 monitors pledged to aid school ventilation - BBC News
[27] Roadmap to improve and ensure good indoor ventilation in the context of COVID-19 (who.int)

Figure 7: Roadmap for natural ventilation in non-residential settings including schools and universities[28]

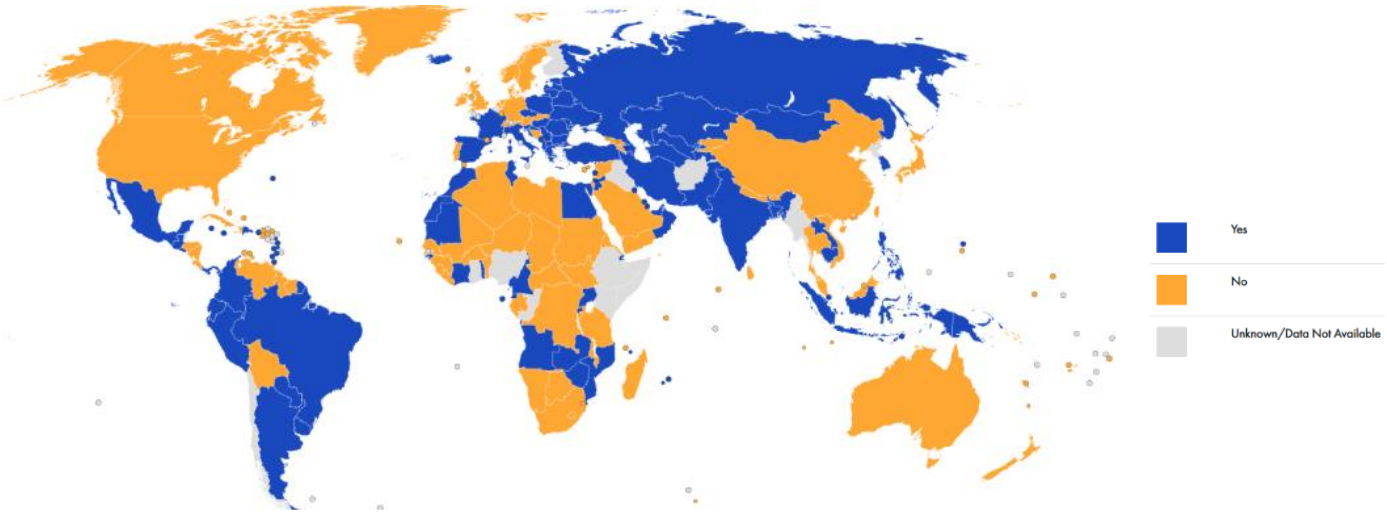


[28] Roadmap to improve and ensure good indoor ventilation in the context of COVID-19 (who.int)

Vaccination

- **In the US the CDC encourages schools to promote vaccination amongst all eligible individuals** (those of 12 years and over) to help schools safely return to in-person learning as well as extracurricular activities and sports[29]
- It has been reported that **several provinces in China**, including Guangxi, have declared that **students will not be able to return to school unless their entire family have been vaccinated**[30]
- The Global Education Forum (GEF) supports the **prioritisation for teacher's vaccination in order to support schools safe re-opening**[31]. Figure 8 illustrates which countries are prioritising teachers for vaccination (as of 17th August 2021)

Figure 8: Vaccine prioritised specifically for teachers as of August 17th 2021[32]



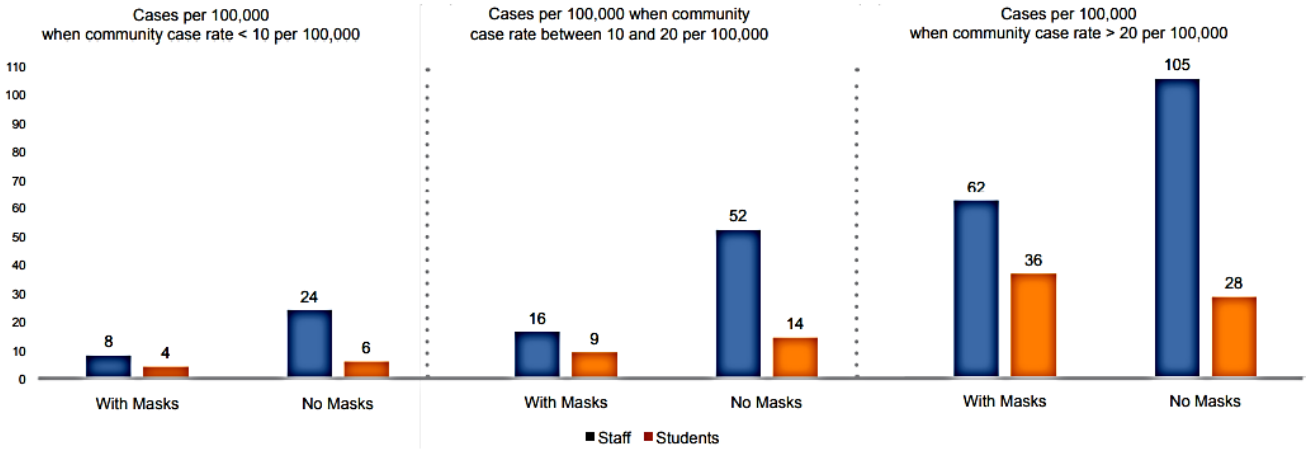
Face mask use

- The **Finnish Institute for Health and Welfare** currently **recommends the use of face masks in school settings**, guidelines differ depending on the phase of the COVID-19 epidemic[33][34]
  - ✓ In acceleration or community transmission phases the use of masks is recommended in higher education institutions, upper secondary education institutions and for pupils in classes 6–9 in comprehensive school
  - ✓ It is recommended that **masks are worn in school transport and public transport** on school trips
- In **Ontario, Canada, face masks and coverings are required for students in grades 1-12 when indoors**[35]
  - ✓ Exceptions include when eating and during low-contact physical education classes
- In the US, the CDC recommends universal indoor masking for all teachers, staff, students, and visitors to K-12 schools (publicly supported primary and secondary education), regardless of vaccination status, as of August 4th 2021
- There is evidence from the US, that masks are effective in reducing the transmission of COVID-19 in schools when community levels of COVID-19 are lower, however when

[29] Guidance for COVID-19 Prevention in K-12 Schools | CDC
[30] Chinese authorities say unvaccinated parents can't send children to school - BBC News
[31] Microsoft Word - Background Document 2 -Teachers and vaccination as part of school reopening_v27 April 2021_VB.docx (educationcommission.org)
[32] Maps (covideducationrecovery.global)
[33] FAQ about COVID-19 - OKM - Ministry of Education and Culture, Finland (minedu.fi)
[34] Recommendation on the use of face masks for citizens - Infectious diseases and vaccinations - THL
[35] COVID-19: Health, safety and operational guidance for schools (2021-2022) | Ontario.ca

community levels are higher this is only seen for teachers, not the students.[36] (figure 9)

Figure 9: Total rates of infection with and without face mask use in schools in the US[37]



Source: National COVID-19 School Response Dashboard (United States), March 5, 2021.

Overview: re-opening tertiary educational settings

The COVID-19 pandemic is **estimated to have affected more than 220 million tertiary level students worldwide** resulting from closures and disruption of Institutes of Higher Education (IHE). Educational continuity has been challenged by the ongoing infectious control measures put in place including social distancing and lockdowns[38]

Impact of the COVID-19 pandemic on Institutes of Higher Education

The United Nations Educational, Scientific and Cultural Organization (UNESCO) conducted a global survey[39] to gain an insight into how countries have been able to cope with the **rapid digitalization of the education sector** (specifically looking into access, equity and quality of teaching and learning). Key findings of the assessment include:

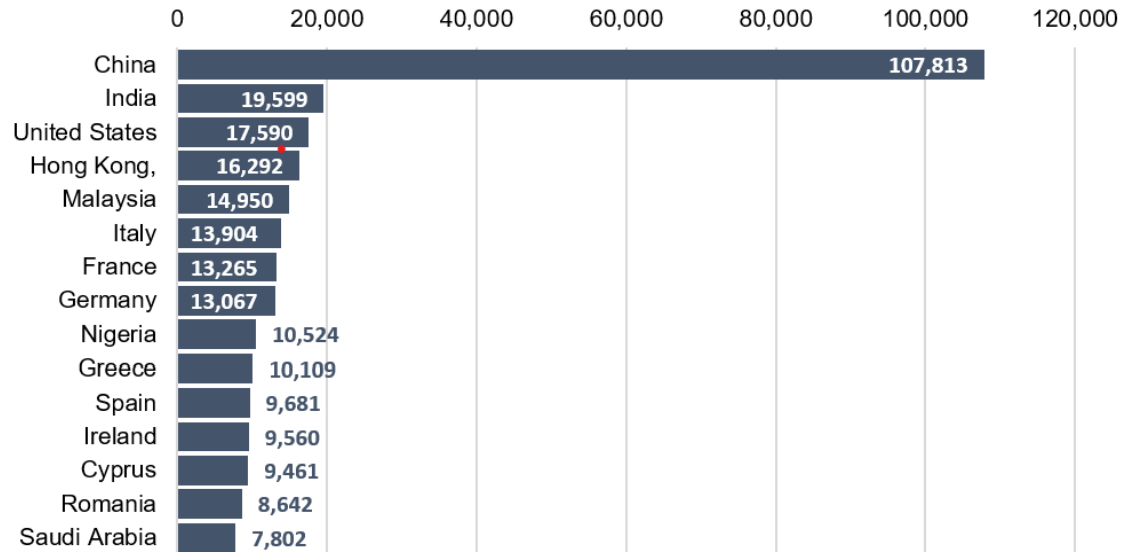
- **Access**: High income European and North American countries are better able to cope with the disruption due to government funding support and increase in domestic enrolment
- **International mobility:** Mobility has affected international students significantly, but virtual mobility could compensate or even replace physical mobility
- **Disruption of research and extension activities:** COVID-19 caused suspension and cancellation of teaching and research activities globally
- **Widening inequality:** The mixed impact of the pandemic on university finance shed a light on the exacerbation of inequality in higher education
- **Transition from higher education to work:** The significant reduction of job opportunities makes the transition from higher education to the labour market more difficult. Employers are also seeking applicants with more advanced technology skills
- **Mode of teaching and learning:** The major impact of COVID-19 on teaching and learning is the increase in online education. The hybrid mode of teaching has become the most popular form

[36] Transmission-22-5-2021.pdf (worldbank.org)
[37] Transmission-22-5-2021.pdf (worldbank.org)
[38] New UNESCO global survey reveals impact of COVID-19 on higher education
[39] New UNESCO global survey reveals impact of COVID-19 on higher education

International student mobility

International student mobility has reduced due to the pandemic and resulting travel restrictions. In 2018, **38,986 tertiary students from the UK studied abroad**, the country which received the highest number of tertiary students from then UK was the US with 10,125. In 2018, there were **452,079 tertiary international students studying in the UK** (figure 10). China had the highest number of students studying in the UK at 107,813, making up just under a quarter of the total, with India having the second largest contingent with 19,599 students.

Figure 10: Number of international tertiary students studying in the UK in 2018[40]



Some students arriving in the UK will have been vaccinated using vaccines that are not commonly utilised in the UK. The vaccine efficacy against the COVID-19 variants circulating in the UK will vary depending on the vaccine administered. The Institute for Health Metrics and Evaluation has estimated vaccine efficacy for the different vaccine by COVID-19 variant.[41]

Recommendations on re-opening the higher education sector

A survey conducted by UNESCO[42] on the impact of COVID-19 on the higher education system at the national and global levels recommends:

- ✓ **Improved equity policies:** Improve or design comprehensive policies **to promote equity in a systemic way**
- ✓ **The continued role of remote learning:** The **online and hybrid modes of teaching and learning could present new opportunities** and open new doors for those who have been traditionally excluded from higher education. However, more assessment and research are needed regarding the implementation and **quality assurance of remote learning**
- ✓ **The impact of tuition fees on enrolment:** Tuition fees may affect student decisions on the continuation of learning and research activities. This has immediate implications on university funding and access to higher education
- ✓ **Virtual mobility as a new strategy:** Many countries had used virtual mobility to compensate for the lack of physical mobility during the COVID-19 outbreak.
- ✓ **The impact of COVID-19 according to the type of institution:** Public institutions may receive more support from the government compared to private institutions.
- ✓ **Enhanced data collection:** Additional data must be systematically available to improve evidence-based policies

[40] *Global Flow of Tertiary-Level Students | UNESCO UIS*
[41] http://www.healthdata.org/covid/covid-19-vaccine-efficacy-summary
[42] *COVID-19: reopening and reimagining universities, survey on higher education through the UNESCO National Commissions - UNESCO Digital Library*

- ✓ **More international cooperation in higher education:** International cooperation plays an important role in the generation and transfer of knowledge, information, experience and capacity.

Country insights

Finland[43]

- The Finnish Institute for Health and Welfare **currently recommends the use of masks throughout the country**
- The hosting higher education institution is responsible for **ensuring that foreign students are sufficiently aware of the restrictive measures and recommendations** to combat the coronavirus epidemic.
- The **international activities** of EU projects can be prematurely suspended, carried out with another partner**, postponed to a later date or cancelled**

Norway[44]

- In Norway, **everyone eligible will have been offered a vaccine by autumn**, including staff and students and **IHEs are exempt from social distance requirements during lectures**
- **A safe distance should still be made possible of at least 1 metre such as reading rooms, canteens and common areas**)
- **A fixed seating plan is advised to allow contract tracing** for potential outbreaks
- Measures such as **respiratory etiquette, a good hand hygiene and physical distancing**, where required, is advised by official authorities
- The Norwegian Institute of Public Health has issued **general infection control guidelines** that can be adapted by different organisations to their specific activities
- IHEs are required to inform and advise incoming international students on the latest advice especially on quarantine requirements

Latin America

- A publication by UNESCO[45] revealed **four concerns** for students attending IHEs, namely: **technological access, economic difficulties, social isolation, and pedagogical inconvenience**
- They concluded that recovery and restructuring plans are essential to ensure pedagogical continuity, these should include:

  Recovery:
  - ✓ Compensatory mechanisms to support learning (technology can be used as a support tool for the personalisation of remedial activities)
  - ✓ Open and asynchronous assessment: **individualised tutoring**, **small learning groups** for remedial learning in critical instrumental subjects, and summer (or winter) schools offering **compensatory teaching**

  Restructuring:
  - ✓ Document the pedagogical changes introduced during the crisis and their impacts
  - ✓ Promote **internal reflection** on the renewal of the teaching and learning model
  - ✓ Learning from mistakes and **scaling up digitisation, hybridisation and ubiquitous learning**
  - ✓ **Technological solutions that do not prejudice those who are already at a disadvantage**

[43] Questions and answers (valtioneuvosto.fi)
[44] Universities, colleges, vocational schools and folk high schools - NIPH (fhi.no)
[45] Closing now to reopen better tomorrow? Pedagogical continuity in Latin American Universities during the pandemic - UNESCO Digital Library

Poland

- The analysis of a survey[46] undertaken among the student population at the University of Economics in Katowice, Poland (UEK) between May and June 2020 explores the influence of factors that are important to the acceptance of shifting education to distance learning due to the pandemic. The survey had 1692 responses (23.7%) of UEK students and showed that **enjoyment, followed by self-efficacy are the best predictors of students' acceptance of distance learning**, however, overall students preferred traditional face-to-face education

United States of America

Guidance for US IHEs provided by the CDC:[47][48]

Offer and promote COVID-19 vaccination

- IHEs can play a **critical role in offering and promoting vaccination uptake** among students and staff to slow the spread of COVID-19 and prevent interruptions to in-person learning
    - ✓ IHEs could (i) **provide on-site vaccination** in IHE facilities, (ii) consider **hosting a mass vaccination clinic** or **setting up smaller vaccine venues** on campus and (iii) **connect with local or state health department** or health system

Guidance for IHEs where everyone is fully vaccinated[49]

- IHEs **where all students, faculty, and staff are fully vaccinated prior to the start of the semester can return to full capacity in-person learning**
- IHEs should **establish and promote a vaccination environment that is safe and equitable for all**
- Utilize appropriate prevention strategies to protect people who are not fully vaccinated (such as events and meetings), consider the following:
    - ✓ **Physical distancing**
    - ✓ Health promoting behaviour such as **hand hygiene and respiratory etiquette**
    - ✓ **Cleaning and disinfecting facilities, improving ventilation**[50]
    - ✓ **Testing** routinely when there is an outbreak of COVID-19 cases
    - Students and staff should be encouraged to perform daily symptom screening for infectious diseases
    - **Case and contact tracing should be in place to break potential infection chains**

Guidance for IHEs where not everyone is fully vaccinated

- An environment with both vaccinated and vaccinated people requires the implementation of layered prevention strategies including **regular symptom screening** and adherence to interventions such as **mask use and social distancing**

General considerations for all IHEs

- Non pharmaceutical interventions such as social distancing, mask use, and respiratory hygiene, as well as a regular cleaning routine for facilities, improved ventilations are among the most effective ways to slow down the spread of COVID-19

[46] *Students' Acceptance of the COVID-19 Impact on Shifting Higher Education to Distance Learning in Poland (nih.gov)*
[47] https://www.cdc.gov/coronavirus/2019-ncov/community/colleges-universities/index.html
[48] ED COVID-19 Handbook, Volume 3 - 2021 (PDF)
[49] *Exceptions to the recommendations apply and also depend on the state regulation in place*
[50] *Ventilation in Buildings | CDC*

A study carried out in the US[51] combined analytical epidemic modelling, data analysis and agent-based simulations to explore prevention strategies that educational institutions can adopt to safely re-open during the pandemic, the key finding were:

- **Preventative non pharmaceutical interventions such as mask wearing, social distancing and reduction of contact rates among individuals at educational settings are essential to re-open safely** (as these measures are also help to prevent asymptomatic transmission)
- **Contact tracing** is not enough to contain the infection spread, **bulk testing capabilities** are essential. Additionally, **increasing testing frequencies for high mobility sub-groups** and **efficiency of isolation of patients who test positive** is of importance
- Generating **quick test results** is crucial. The following is important for institutions to consider when re-opening: COVID-testing for staff, students and visitors that is **cost-effective, easy to administer in high volumes, and has a quick turnaround** time to results

Sustainable recovery of the higher education sector

Evidence suggests that COVID-19 has presented an opportunity to rethink traditional higher education business models to **make them more sustainable**:[52]

- Develop and implement institutional strategies combining evidence on how to cope with the virus with a sustainability approach for example **redesign the ways universities consume resources such as water and energy and therefore reduce costs**
- Use the available evidence on the many socio-economic and health impacts of COVID-19 as part of courses, **reflecting on unsustainable practice** such as unnecessary travel
- Use **interdisciplinary research** on the connections between COVID-19 and sustainable development
- **Reduce the carbon footprint** by using environmentally friendly means to reduce the constraints in academic activities and international cooperation, such as CO^2 emissions associated with the energy needed to power servers by **switching to internet service providers whose servers are powered by renewable energy**
- Mobilise staff and students to promote measures to keep them safe but also reflect on their **own contribution towards their sustainability** and that of their institution (for example, staff and students can be encouraged to avoid the use of plastic packaging, plan the right amount of food needed so as to avoid food waste, or engage in saving energy with home appliances during social isolation or working from home)

[51] https://www.nature.com/articles/s41598-021-84192-y.pdf
[52] EM-IJSH200111 1..4 (haw-hamburg.de)

The impact of COVID-19 on people with a disability

This section highlights some of the issues that people with a disability have faced due to the COVID-19 pandemic and recovery internationally. It cannot describe all of the issues, but aims to shine a spotlight on barriers faced and international good practice and recommendations.

Research indicates that **people with a disability already faced health inequity** prior to the pandemic **and this has been exacerbated by the response to and recovery from the pandemic**. This may be due to a range of factors such as **discriminatory policies, including health professionals' conscious and unconscious biases and conventional health service delivery.**[53]

The COVID-19 pandemic has exacerbated issues, for example:

- **People with autism have reported feeling increased stress** due to the restrictions imposed due to the pandemic, leading to an escalation in challenging behaviours, risk of placement breakdown and increased the use of psychotropic medication[54]
- **People with physical disabilities report facing new challenges in accessing healthcare**, changes in lifestyle, mood changes and decreased levels of physical activity.[55]
- **People with visual impairments have reported not be able to access COVID-19 information due to an absence of accessible and specifically designed information**[56]
- A survey conducted in Australia among **children and young people with a disability** (including their families) found that 82% of respondents felt that there was a **lack of information about COVID-19 targeted at them addressing their particular needs, and 50% of respondents felt that their mental health and well-being had declined during the pandemic**.[57]

Considerations and recommendations for people with a disability from international institutes and organisations

Barriers for people with a disability were identified by the International Disability Alliance:[58]

- Observing **physical distancing disproportionately impedes persons with disabilities** access to livelihoods, independent living and health care and rehabilitation
- **Unless specifically prioritized, persons with disabilities** in practice **will be among the last groups accessing vaccination**
- **Informed consent** of people with a disability is often not performed (for vaccination)

People with disabilities have faced many barriers to inclusion in the COVID-19 response across the world, some of these are summarised in figure 13[59]

[53] At-Risk-and-Vulnerable-Reflections-on-Inequities-and-the-Impact-of-COVID-19-on-Disabled-People.pdf (researchgate.net)
[54] COVID-19 and people with intellectual disability: impacts of a pandemic (nih.gov)
[55] Impact of COVID-19 on people with physical disabilities: A rapid review (nih.gov)
[56] Impact of COVID-19 pandemic on people living with visual disability (nih.gov)
[57] More than isolated: the experience of children and young people with disability and their families during the COVID-19 pandemic (apo.org.au)
[58] COVID 19 and the disability movement | International Disability Alliance
[59] https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00625-5/fulltext

Figure 13: Barriers for inclusion of people with disabilities in the COVID-19 response[60]

- Failure to ensure safety of people with disabilities in congregate living or health facilities
- Failure to ensure access for people with disabilities to: food deliveries; internet; COVID-19 testing; and water, sanitation, and hygiene facilities
- Failure to give relevant people with disabilities or their families or support workers evidence-based priority for COVID-19 vaccination or COVID-19 treatment where required
- Lack of or inadequate support for people with disabilities living alone or where family members or support workers are self-isolating or affected by COVID-19
- Unclear public health messaging or lack of accessible messaging
- Postponement of required medical treatment, including rehabilitation
- Failure to collect data on disability to allow disaggregation

A paper published by the UN concludes that a **"disability-inclusive COVID-19 response and recovery will better serve everyone and prevent the gains made in the inclusion and rights of persons with disabilities from being lost"**[61]

The following foundations were outlined for a **disability inclusive and human rights based COVID-19 response**:[62]

- ✓ **Non-discrimination** (on the basis of disability)
- ✓ **Intersectionality** (reflect and respond to the multiple and intersecting forms of discrimination)
- ✓ **Accessibility** (for facilities, services and information)
- ✓ **Participation** (active involvement and full participation in decision-making processes)
- ✓ **Accountability** (governments and other actors need to be accountable for an inclusive COVID-19 response and recovery)
- ✓ **Data disaggregation** (collection and availability of disaggregated data by disability status)

The United Nations Development Programme Asia and the Pacific[63] has highlighted **concerns about access to knowledge and services for people with disabilities** such as access to COVID-19-related information, web-based vaccine registration, as well as social protection services, testing and vaccination sites and is recommending the following to 'leave no one behind' in the response and recovery from COIVD-19:

- ✓ **Disability-inclusive and accessible features** for official documents such as including narration and voice-over; sign-language interpretation; high-contrast subtitling
- ✓ **Investment in accessible formats** or adding accessibility features in products and services
- ✓ **Understanding and supporting a disability-inclusive COVID-19 response** and recovery by undertaking research

[60] https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00625-5/fulltexthttps://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00625-5/fulltext
[61] Microsoft Word - Joint statement- Disability-inclusive response to COVID-19_FINAL_18 May.docx (un.org)
[62] sg_policy_brief_on_persons_with_disabilities_final.pdf (un.org)
[63] https://www.asia-pacific.undp.org/content/rbap/en/home/blog/2021/improving-accessibility-for-people-with-disabilities--a-neglecte.html?utm_source=EN&utm_medium=GSR&utm_content=US_UNDP_PaidSearch_Brand_English&utm_campaign=CENTRAL&c_src=CENTRAL&c_src2=GSR&gclid=EAIaIQobChMIkvbs5ru18gIVEb_tCh1rcwDrEAAYBCAAEgK5YfD_BwE

The WHO recognises that people with a disability may face greater risk of contracting COVID-19 and are also disproportionately impacted by service disruptions,[64] and makes the following recommendations (table 1)

Table 1: Considerations for people with a disability[65]

	Recommendation
Governments	- **Ensure public health information and communication is accessible** (e.g. guidance, national addresses, and press briefings are **available in sign language and with captions and information are available in accessible formats**) - Ensure public health information and communication is accessible (e.g. appropriate actions are being taken by **educational settings** for students with a disability) - Undertake **targeted measures for disability service providers** in the community (e.g. short-term financial support for disability services and **provide hotlines for disability services to communicate with government and raise concerns**) - Increase attention given to people with disability living in potentially higher risk high-risk settings of developing the disease
Healthcare sector	- **Ensure COVID-19 health care is accessible**, affordable and inclusive (e.g. allocation of scarce resources are not based on pre-existing impairments) - Deliver **telehealth** for people with a disability where appropriate
Institutional settings	- **Reduce potential exposure to COVID-19** (e.g. identify the most at risk who work with people with a disability) - **Prepare for COVID-19 infections in institutions** - **Provide sufficient support for residents with disability** (e.g. sufficient personnel to safeguard the health and well-being of people with a disability) - Guarantee the rights of residents during the COVID-19 outbreak
Disability service providers in the community	- Develop and implement **service continuity plans** - **Communicate frequently with people with disability and their support networks** - **Reduce potential exposure to COVID-19 during provision of disability services in the community** - **Provide sufficient support for people with disability** who have complex needs (e.g. identify the potential for increased violence or abuse)
Community	- **Basic protection measures to be adopted by the general public** - **Flexible work arrangements** and infection control measures to be supported by employer - **Increased access to stores** to be provided by store owners for vulnerable populations (e.g. allocated hours for people with a disability) - Extra support to be provided by family, friends and neighbours for a person with disability
People with a disability and their household	- Reduction of exposure to COVID-19 (e.g. adhere to non-pharmaceutical interventions such as physical distancing, mask wearing, avoidance of crowded environments, assistive products are disinfected frequently such as wheelchairs - Ensure continuation of care and support (e.g. increase pool of caregivers) - Preparation in case of contracting COVID-19 such as building a support system that is sighted on information regarding medication and care needs of the person with a disability

Examples of promising practice

The UN published guidance in 2020 with examples of promising practice (table 2)[66]

[64] https://www.who.int/publications/i/item/WHO-2019-nCoV-Disability-2020-1
[65] Disability considerations during the COVID-19 outbreak (who.int)
[66] https://www.ohchr.org/Documents/Issues/Disability/COVID-19_and_The_Rights_of_Persons_with_Disabilities.pdf

Table 2: Examples of promising practice for people with a disability

The right to health of people with a disability
- The Office for Civil Rights at **the United States Department of Health and Human Services** issued a bulletin to ensure that authorities prohibit discrimination on the basis of disability, stating that "persons with disabilities should not be denied medical care on the basis of stereotypes, assessments of quality of life, or judgments about a person's relative "worth" based on the presence or absence of disabilities or age" ✓ The bulletin also provides guidance to authorities on ensuring outreach and accessibility of information and communications to persons with disabilities for equal opportunity to benefit from emergency response efforts, "including making reasonable accommodations [to] help ensure that the emergency response is successful and minimizes stigmatization" - **The United Arab Emirates** has launched a national program to test persons with disabilities in their homes and as of mid-April had conducted 650,000 COVID-19 tests of persons with disabilities - In **the Philippines**, the Commission on Human Rights has published information to support health agencies tailor public messages for vulnerable groups of the communities, including children and people with disabilities - **In Canada**, the COVID-19 Disability Advisory Group was established with the participation of persons with disabilities and their representative organisations to advise the government on disability-specific issues, challenges and systemic gaps and strategies, measures and steps to be taken
The right of people with a disability living in the community
- **Paraguay and Panama** have developed systems to ensure that relevant information is provided in accessible formats. In the same vein, **the New Zealand Ministry of Health** has a section of its website dedicated to providing information in accessible formats, including sign language and easy to read. The government of **Mexico** adopted a similar practice - **In Argentina**, support persons are exempted from restrictions of movement and physical distancing to provide support to persons with disabilities. Community support networks have developed in **Colombia** and recruit volunteers that support persons with disabilities and older persons with their groceries and other purchases - Also, in **Panama**, in an effort to reduce risks, specific opening hours have been allocated for persons with disabilities and their personal assistants for essential purchases
Work, income and livelihood of people with a disability
- In response to COVID-19, **Bulgaria, Malta and Lithuania** have increased funding to their social protection systems to expand social support services and cover more beneficiaries, including persons with disabilities - In **Argentina and Peru**, persons receiving disability benefits will receive an additional amount in light of the COVID-19 crisis. **France** announced a similar measure favouring beneficiaries of the disability allowance, and **Tunisia's** emergency plan includes cash transfers for low income households, persons with disabilities and homeless people - **The United States of America** has established tax relief programs that may contribute to alleviate the financial situation of persons with disabilities in this context
The right of education of people with a disability
- **The United States of America** issued a guidance document on the federal legislation applicable, the Individual with Disabilities Act - **Ecuador** issued recommendations for teachers on supporting the education of children who need to remain isolated at home
People with a disability without adequate housing
- In **the United States of America**, homelessness response has been implemented through specific guidelines that include a disability dimension on communication - In **Chile**, the government announced reinforcing its engagement on the street to provide health services to homeless persons - In **Argentina**, over 1,000 beds were installed in a large facility to provide emergency shelter to those who may require physical distancing without high medical requirements

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