

Coronavirus COVID-19: Considerations for reopening schools

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COVID-19 is, first and foremost, a global humanitarian challenge

Thousands of health professionals are heroically battling the virus, putting their own lives at risk. Governments and industry are working together to understand and address the challenge, support victims and their families and communities, and search for treatments and a vaccine.

The spread of the virus has led to school system closures around the world

The global spread of COVID-19 is accelerating, with more than 2 million confirmed cases in 210 countries and territories. In response, over 191 countries have closed schools country-wide leaving over 1.5 billion children out of school

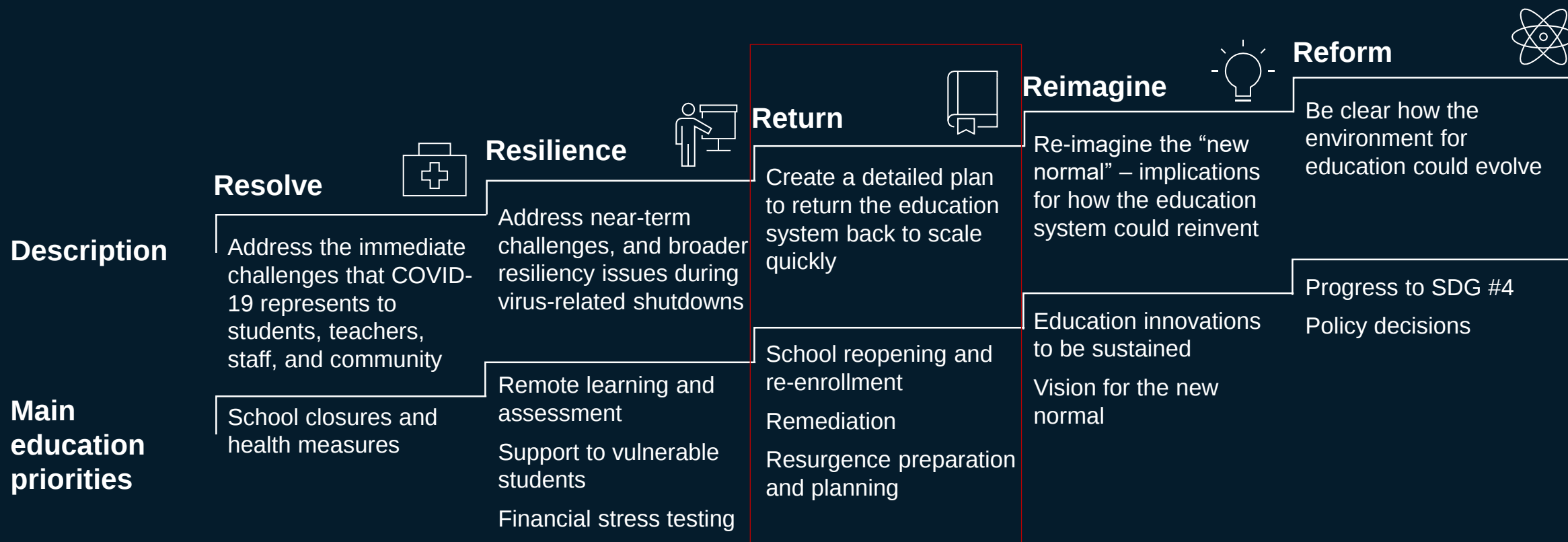
School systems face uncertainty as to how long this will last and when schools can reopen

While recognizing the uncertainties inherent in discussing any timeline for returning to pre-outbreak normalcy, this document strives to lay out key considerations towards reopening K-12 schools once the outbreak starts to subside. In doing so, it focuses on two main questions

- When can the schools be re-opened and what approach could be followed to reach the decision?
- How can the K-12 stakeholders facilitate and get ready for school reopening with a primary focus on health and safety measures?

Education system response to the pandemic could be approached along 5 key steps

 Focus of today's discussion

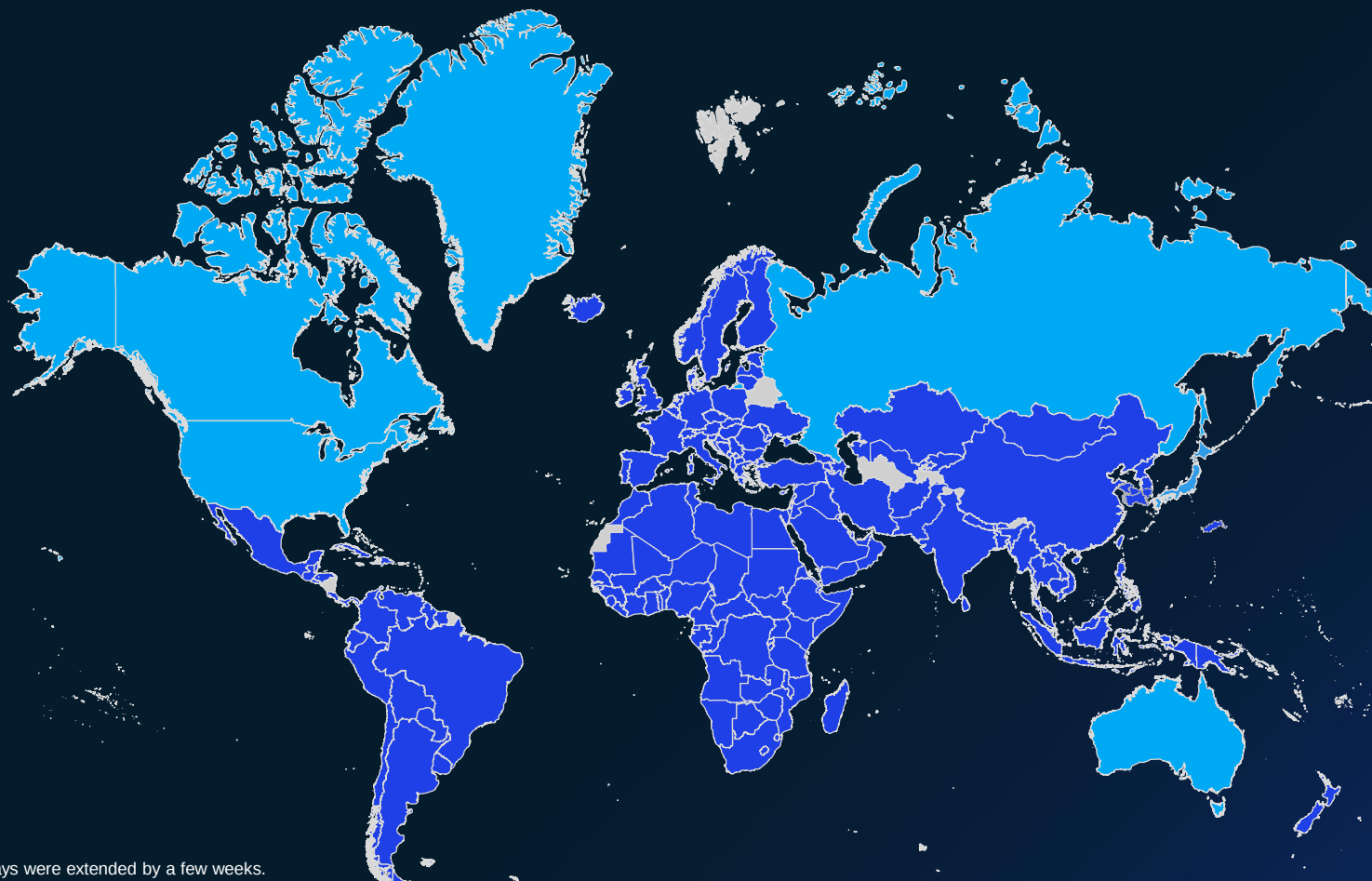


Managing across the 5Rs requires a new architecture to plan, coordinate, manage stakeholders and external partnerships

Countries are at different stages when it comes to deciding whether schools should be closed / opened

Country-wide initial school closure for at least one level Local initial school closure for at least one level

Non-exhaustive list of examples



Schools that stayed open

-  Taiwan¹
-  Cuba
-  Sweden²
-  Turkmenistan
-  Tajikistan
-  Belarus

Schools³ that recently opened

-  Denmark
-  Norway
-  Japan
-  China (e.g., Zhejiang)
-  Israel⁴

Plan for schools to be reopened⁵

-  Germany
-  France
-  New-Zealand

1. Holidays were extended by a few weeks.
2. Primary and secondary schools were open as of April 16, however, the country did close them for students older than 16.
3. At least one level at the national scale.
4. Special education schools reopened on April 21.
5. Some deep-dives available in Appendix.

There are three main elements to consider when considering school re-opening

Preliminary insights

A When do you reopen and for whom?

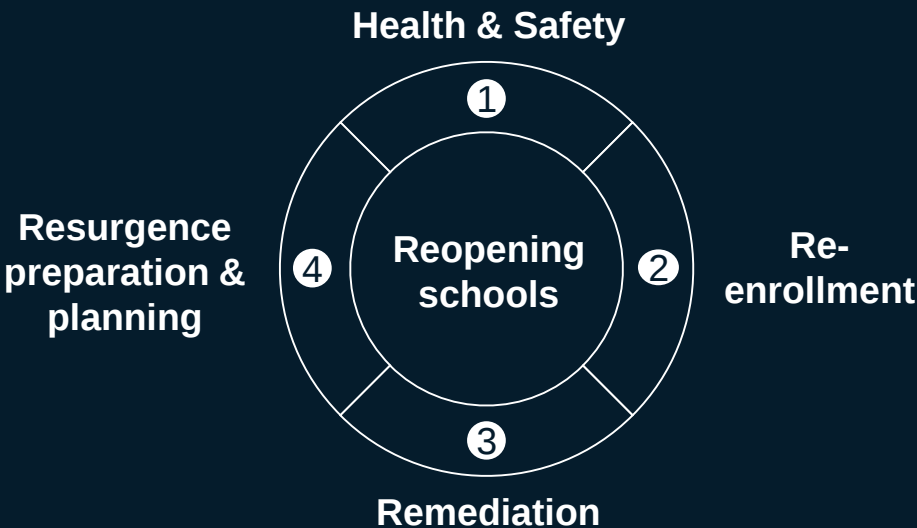
When to
reopen?

- Trade-offs would have to be weighed in on following parameters:
 - **Public health risks:** Impact of school reopening on virus transmission
 - **Economic activity:** Dependency on childcare for parents to return to work
 - **Impact on students learning and thriving**
 - **Ability to safeguard school** systems with health and safety protocols

For
whom do
you
reopen?

- Contextual information will define different approaches:
 - **Regional context**
 - **Student demographics**

B How do you get ready to reopen?



C

What kind of structures do you put in place to monitor and streamline the process?
(e.g. Team structure, governance, tools, communications strategy)

A Deciding on reopening requires weighing public health risks against economic activity, student impact and ability to safeguard

Extent and weight of risks will vary across countries and regions

Not Exhaustive

Factors

Key questions

Public health risks

To what extent can the health of students, families, staff and the general population be safeguarded while opening schools?

Criticality for economic activity

To what extent does school closure contribute to GDP loss and unemployment by preventing reopening the economy?

Impact on student learning & thriving

To what extent is student learning falling behind when schools are closed?
To what extent are inequities exacerbated during school closures?

Ability to safeguard schools

To what extent are school systems ready to reopen with the right health & safety measures in place?



Considering the inputs of 3 key stakeholders

- Parents
- Teachers
- Students

A There is a continuum of approaches and timelines to reopen schools across different countries

Preliminary insights

Schools among the first of sectors to open

Schools reopening considered critical to continue student learning and reopening economy and precedes all or most other sectors on reopening

Schools among the last of sectors to open

Schools reopening considered too risky for controlling transmission and not core to reopening economy; schools opened only after most/all of non-essential sectors



Japan and China have reopened most schools in low-risk areas¹ (after more than a month of closure)



Denmark and Norway are reopening kindergarten (and primary schools) ahead of other sectors (after ~3 weeks of closure)



German regions might reopen schools on May 4, initially for students in their final years of primary or secondary school (after ~5 weeks of closure)



France and Switzerland will gradually reopen starting with kindergarten and primary schools followed by secondary schools, on May 11 (after ~6-8 weeks of closure)



Spain, Italy and Greece might not reopen schools before the start of the school year in September. Other sectors of the economy will be (partially) reopened before



Colorado, Florida and Texas are not expected to reopen schools for the rest of the academic year whereas they have reopened hair salons, beaches and retail stores respectively

1. Japan and China are opening schools on a rolling basis – in low risk areas schools are reopened with safety protocols in place but they remain closed in high risk areas in Tokyo and Wuhan

A School systems will need to gauge the risks and identify trade-offs to determine the approach for school reopening

Not Exhaustive and Preliminary insights

Schools among the first of sectors to open

Schools among the last of sectors to open

What do you have to believe to make a decision for school reopening?

Public health risk

Risks for children and teachers themselves as well as for asymptomatic transmission through children considered limited

Risks for children themselves considered moderate; reopening schools still seen as a risk due to likelihood of asymptomatic transmissions

Reopening of the schools can pose a significant risk to both children and others

Criticality for economic activity

Schools are a critical prerequisite to allowing parents to return to work; significant portion of workers rely on childcare

Economic activity can return through slow, systematic / staged reopening of schools

Most parents can continue to work from home or most households can arrange for caregivers (including through government-provided care)

Impact on student learning and thriving

Significant learning loss with remote learning especially for vulnerable students
Broader risks to students in staying home (nutrition, domestic violence)

Blended learning works for some subjects and grade levels; in-person lessons required for others

Remote learning allows students to continue learning at acceptable levels

Ability to safeguard schools

Health & Safety measures can adequately mitigate the risk of infection in schools

Health & Safety measures are insufficient to prevent the spread of the disease if schools return to full capacity

Very difficult to safeguard schools given inherent characteristics of children, plus shortages of supplies and budgets

A COVID-19 Education Reopening Readiness Dashboard

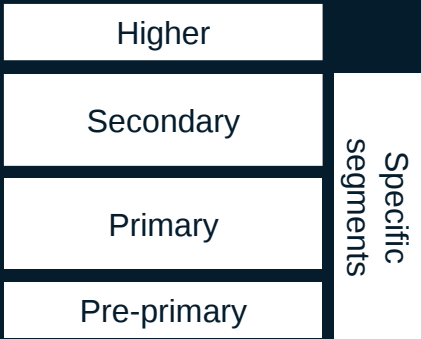
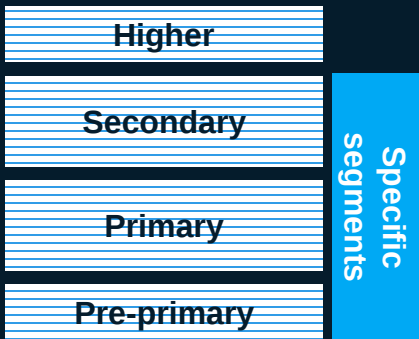
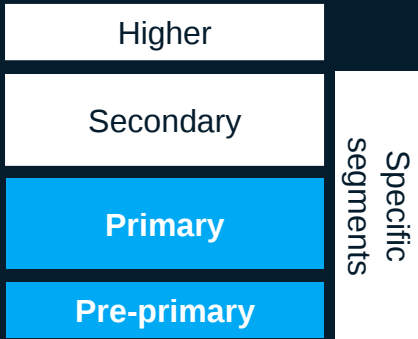
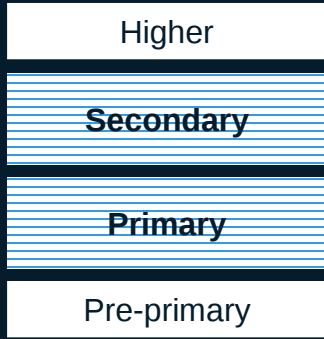
Illustrative

			Score	Domain performance metrics	
Public health risk	Foundational public health		23	Protective equipment (e.g., masks, gloves) availability Testing capability Tracking and tracing capability	New active cases Share of hospitalized patients Mortality rate
	Health system capacity		54	Protective equipment (e.g., masks, gloves) availability Regular beds availability Intensive care beds availability	Clinical workforce (e.g., doctors, nurses) availability Treatment availability Ability to scale up healthcare capacity and PPE
Criticality for economic activity	Economic health		32	Number of workers dependent upon childcare School substitutes (e.g., older children) availability Share of GDP generated by workers dependent upon childcare ²	Share of consumer spending generated by workers dependent upon childcare Bankruptcies risk for companies employing workers dependent upon childcare
Impact on student learning and thriving	Remote learning effectiveness		15	Device and Internet availability Remote learning attendance Target curriculum coverage / learning pace	Online assessment results Online tutoring availability Parents, teachers and students satisfaction
	Impact on equity		25	Performance gap per student pre- and during quarantine Performance gap across students during quarantine Cases of domestic violence and child abuse	Access gap between different socio-economic groups
Ability to safeguard	School safeguarding		76	PPE available per school employee and student Compliance with physical distancing and sanitation rules Compliance with health checks	

A While considering for whom do you reopen, four archetypes can be identified based on global examples

■ Opening ■ Partial opening

Preliminary insights

Archetype	1. No reopening	2. Targeted groups	3. Targeted levels	4. Targeted years
				
Rationale	Considerable pressure on health care system and risks of resurgence calls for schools to remain closed till the end of school year (July)	Schools to open or remain open for specific segments that are disproportionately impacted by school closures (e.g. special education schools, vulnerable population)	Schools to open as a means to provide childcare for parents, enabling them to go back to work and open other sectors	Prioritized opening for students in grades that have high stake exams to allow progression to next level
Examples ¹	 Spain  Italy	 Estonia  United Kingdom  Israel	 Denmark  Norway	 Germany  Portugal  France

1. Examples based on public reports, and includes likely scenarios announced in the press

B Once reopening decision is made, readiness depends on four key elements; health & safety becomes a pre-requisite

 Deep-dive

Preliminary insights



Health & Safety

Key safeguards to be put in place with respect to following categories:

- Physical infrastructure
- Transportation and food service
- Scheduling and staffing
- Health and behavioral norms



Re-enrollment

Critical to re-enroll students back to school especially those who are at a **higher risk of dropping out** and the ones who have not kept in touch with teachers during the lockdown



Remediation

Planning required to fill **academic and non-academic gaps** created during school closure leading to loss of learning or other socio-emotional disadvantages

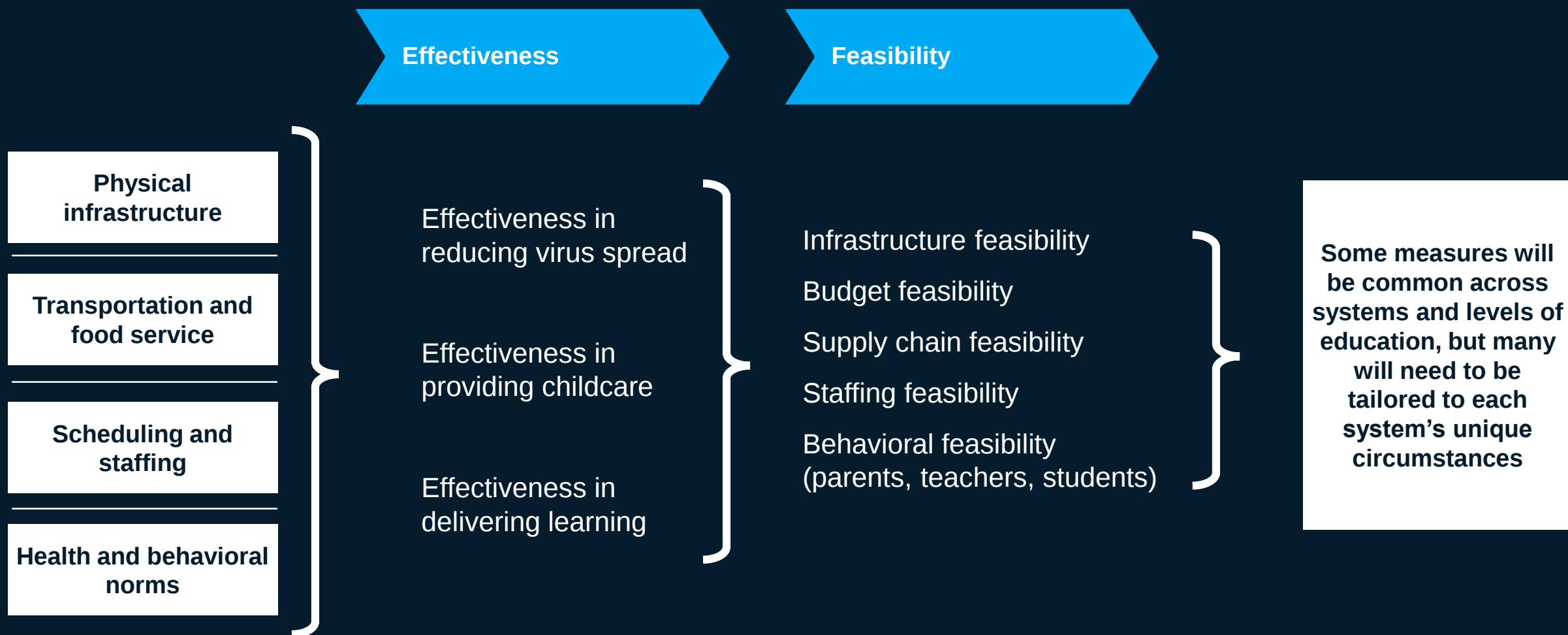


Resurgence planning

Advanced preparation for schools to be able to continue education for students **in case second wave of virus resurges**; readiness for blended learning for all students

B1 In deciding which health and safety measures to implement schools are facing difficult trade-offs between effectiveness and feasibility

Preliminary insights



B1 Illustration of example measures that schools in countries are taking to ensure health and safety (1/3)

Non-exhaustive

Physical infrastructure	Changes to ensure physical distancing	Establish controlled entrances and exits (e.g. based on grade levels, students and teacher entry) and flows (e.g. one-way traffic in tight corridors) Restrict access to places that allow larger gatherings (e.g. cafeteria, staff rooms, libraries) or close these entirely Grid off sections for common spaces and lunch areas to help students separate and reduce seating to ensure >6ft physical distance Separate partitions in open spaces with high risk of interaction/ contact (e.g. playground, blacktop) Add plastic barriers and guards between desks (students and teachers)
	Changes to enable health and sanitization protocols	Install no-touch bathroom fittings, no-touch trash cans Install hand-sanitizing stations at entrances, common areas in the school Discontinue vending machines
	Changes to create healthy buildings	Improve building conditions and airflow (e.g., ventilation per OSHA guidance)
Transportation and food service	Changes to transportation forms, routes, and sanitization procedures	Increase number of bus routes to reduce occupancy on each bus Change bus schedules to bring students in batches that align to cohorts (grade-level, floors) Sanitize school transportation after each use Subsidize parking/ sponsor carpools / create safe bike/walking routes to encourage use of private transport
	Changes to food service to reduce cross-contamination	Ensure all food items and choices are fully boxed and no food can be directly touched by students; enforce 'take what you touch' Package cutlery, seasonings, sauces and napkins in single serve packages Stagger lunch times by class to ensure physical distancing; add markings on ground to prevent crowding

B1 Illustration of example measures that schools in countries are taking to ensure health and safety (2/3)

Non-exhaustive

Scheduling and staffing	Scheduling adaptations that reduce number of students on campus at any time	Create staggered schedule for students to attend school on different days (alternating days) or different parts of the day (morning/afternoon) Place fewer than 50% students in the classroom to allow physical distancing
	Creation of cohorts to minimize number of people each student/teacher interacts with (e.g. by grade, by floor)	Create staggered schedule for cohorts to start/end at different times to avoid contact Develop learning schedule in cohorts to minimize contact with broader group of students (e.g. in primary reduce mixing for electives) Stagger recess, lunch hours to avoid contact between cohorts
	Avoidance of large groups and gatherings to reduce mixing	Cancel assemblies and other large gatherings
Health and behavioral norms	Behavioral norms	Establish physical distancing (>6ft) protocol at all times (either just teachers, or teachers and students) Enforce wearing of masks (either just teachers, or teachers and students) Set up regular schedules for hand washing and sanitation Enforce no sharing of supplies, lunches among students
	Training of staff, parents and students	Use promotional programs around hand washing and other best practices (e.g., “masks are cool” campaign) Set up trainings for current staff on health protocols Educate parents/ communities on school protocols and frequently share updated policies

B1 Illustration of example measures that schools in countries are taking to ensure health and safety (3/3)

Non-exhaustive

Health and behavioral norms

Sick leave policies

Review attendance policy for students (ensuring students stay home in case of symptoms exhibited individually or for a family member)
Set up sick leave and remote teaching policies for teachers to accommodate schedules of different grade levels

Procedures on entering the school site

Establish controlled entrances and exits (e.g. based on grade levels, students and teacher entry)
Check and log body temperature (with contactless thermometer, thermal camera) for all employees, visitors, and students
Limit visiting hours from external members (incl. parents)
Adjust protocols on receiving mail, deliveries, etc.

Enhanced cleaning and sanitization

Enhanced hygiene protocols on school ground with a focus on common touch points (e.g., doors, stairwell handles, light switch, elevator switch)
Promote hand-washing multiple times a day (create schedule to avoid over-crowding for washing)

Contact tracing, emergency and disease management

Notify health officials of suspected or confirmed positive cases
Set up policies for closing classes, cohorts, or entire institution and for managing symptomatic students
Set up protocols for contact tracing if cases are detected in school/ community
Set up isolation facility to handle emergencies in case of cases detected on campus
Partner with local communities, health institutions to be first point of contact during emergencies
Schedule regular inspection in line with COVID-19 health protocols

C An operational lead and tight governance could enable effective monitoring and quick decision-making during reopening process



Dedicated capacity supporting leadership at each level - the “nerve center” - to ensure that response is coordinated and carefully monitored, and to enable decision-making



Strong relationships and partnerships at policy and operational levels with other relevant government entities (e.g. department of health, local clinical services) and non-government (e.g. transport providers, catering services)



Clear, ongoing communication with important stakeholder groups, especially parents



Effective data and monitoring systems to track implementation of health measures within schools, levels of attendance, and overall sentiment among teachers and students



Effective supporting functions, especially IT, finance, and supply chain (for PPE and otherwise)

China began...

Not Exhaustive

China has over 200 million K-12 students

As the origin of the outbreak, China both closed and began to reopen its K-12 schools earlier than other countries affected by COVID-19

Several provinces, including Yunnan and Guizhou in south-east China, have reopened secondary and primary schools after ~4 weeks of closure

Shanghai to reopen schools gradually between April 27-May 6 depending on any resurgence in COVID-19

1. These reflect a combination of measures taken by various K-12 schools / provinces and the set of measures taken at each K-12 school would not necessarily be the same

Source: Xinhua, "Schools begin to reopen in China amid strict measures", March 30, 2020

... reopening schools gradually with health & safety measures¹ starting from early March



Physical infrastructure	Separate entrances provided for students of different grades Well-ventilated classrooms Tables with separating partitions in cafeteria
Transportation and food service	Some classes eat in classroom while other dine in cafeteria Canteen tables tagged with serial numbers for each student Tables with separating partitions in cafeteria
Scheduling and staffing	Classes end at different times to avoid group gatherings Same-floor bathrooms used in turns by classes Fewer than 30 students in each classroom to avoid crowdedness
Health and behavioral norms	Students required to keep safe distances in class Simulation by teachers to show processes like walking in, attending classes, handwashing Staff carried out drills, including on taking temperatures, disinfection and mask-wearing Identifying, isolating and hospitalizing pupils with high temperatures Students and teachers are required to wear masks Shelves placed outside classrooms with disinfection sprayers, thermos bottles, cleaning cloths

Japan began...

Not Exhaustive

Japanese Ministry of Education issued a list of guidelines on March 24 for schools to reopen after ~5 weeks of closure

Schools opened in many prefectures starting from April 6 for certain grades

Schools in other prefectures / cities expected to be opened gradually under a state of emergency which gives local authorities extended powers

1. Does not apply to all regions as a number of prefectures / cities still have not reopened schools and some that are reopened may also be closed again in the case of an observed resurgence in virus
2. These three sets of measures would not necessarily be the same at each reopened K-12 school
3. In the context of the measure set up by the Hokkaido Prefectural Government for students to come to school during the closures to check their health conditions as of March 9th. Possible to assume that such a measure was maintained post-opening.

Source: Japan Times, "Guidelines on curbing virus issued as Japan's schools set to reopen", March 24, 2020

...reopening schools^{1,2} in late March under guidelines provided by Ministry of Education



Physical infrastructure

Thorough ventilation

Transportation and food service

Thorough hand-washing before eating lunch

Scheduling and staffing

Students are divided into groups, with different groups going for health checks at different times³

Health and behavioral norms

Students and staff need to avoid conversing with others at close quarters

Physical distancing takes place at all times (2 meters), including during morning assembly and recess

Students and staff need to check their body temperature frequently

Students and staff need to wear face masks

If an infection is confirmed, the infected individual and those who were in close contact are to be suspended

In case of infection, temporary closure of classes or the entire school may also be recommended

Denmark...

Not Exhaustive

The Danish Ministry of Education issued a list of guidelines on April 6 for school reopening after ~3 weeks of closure

Kindergarten and primary schools reopened across the country on April 15

Schools reopened for students with special needs from all grades (where the individual local councils consider it safe)

Matriculating classes in the upper two levels of secondary school also resumed classes on April 15

1. for children in daycare and primary school.

...reopened kindergarten and primary schools after the Easter holiday



Physical infrastructure

New classroom setups that include desks spaced six feet apart¹

Lessons conducted in gymnasiums¹

Transportation and food service

Students have lunch at their individual, spaced out desks

Scheduling and staffing

Class size is reduced, and students will attend school on alternating days to facilitate physical distancing

Indoor play only allowed between children of pre-defined groups

Health and behavioral norms

Physical distancing takes place at all times (2 meters), including during morning assembly and recess

Employees and students with high-risk family members are not expected to attend classes

Schools face strict guidelines on frequently sanitizing surfaces and objects across the school

Staff is required to educate younger pupils on proper hygiene and ensure they observe safety directives

If an infection is confirmed, the infected individual and those who were in close contact are to be suspended

Norway...

Not Exhaustive

The Norwegian government published a set of directives on April 7 to allow school reopening after ~5 weeks of closure

Kindergartens reopened on April 20

If the reopening proves successful, primary schools will gradually begin reopening on April 27

Secondary school reopening will be decided later

Source: Norwegian government website; press search (e.g., The Local, "What you need to know about Norway's kindergarten reopening", April 9, 2020).

...is gradually reopening schools under strict safety guidelines



Physical infrastructure

Loose carpets should be removed to facilitate cleaning

Transportation and food service

Children and staff should wash hands before and after meals

Children should not share food and drink, bring packed lunches

Children should eat in their cohorts

In the case of joint dining room, the cohorts should eat at different times

Tables and chairs should be washed off after each group

Scheduling and staffing

Cohorts (i.e. fixed groups of children and employees, which are least mixed with other groups) are created

Class size is halved, and classes will attend school on alternating days

Fewer meetings and gatherings take place

Health and behavioral norms

Physical distancing takes place at all times (2 meters), including during morning assembly and recess

Schools face strict guidelines on frequently sanitizing surfaces and objects across the school, with some items to be cleaned hourly; failure to comply to these guidelines risks school closure

Children and adults should wash hands frequently and thoroughly for at least 20 seconds; hands are then wiped with disposable paper towels

Staff is required to be trained in and educate younger pupils on proper hygiene and ensure they observe safety directives; children cannot bring toys from home

If an infection is confirmed, the infected individual and those who were in close contact are to be suspended

In case of infection, temporary closure of classes or the entire school may also be recommended

Questions for discussion:

- What is your biggest challenge for reopening schools?
- What measures are you putting in place to prepare for reopening?
- What other priorities are you currently focusing on?
- What other information can McKinsey provide while considering reopening?

Backup

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A Archetypes of reopening – examples of countries that are considering doing so (1/2)

Country	Measures
 Spain	Spanish schools and universities closed when state of emergency was announced (source) Experts advising government officials predict there will be no return before September 2020 (source) Rationale is that schools will need to comply with physical distancing norms, which is not possible, and need masks and combined face-to-face and online curriculum (source)
 Italy	Schools will not reopen in May, Italy's education minister Lucia Azzolina said in an interview with an Italian newspaper on 17 April. The comments by the Minister come amid the increasingly likely scenario that Italy's schools will not reopen until September
 Estonia	Estonia plans to reopen schools to “smaller groups of children” starting on May 15, with considerable vagueness around how it will be done (source) Rationale is that government would like to begin phasing out homeschooling, get children out of their homes with hikes and activities (source) Teachers will choose students to be in small groups who need more individual approach or for whom distance learning has not proven effective or through parents input (source)
 United Kingdom	While majority of UK schools are without a solid date for reopening, alternative provision (AP) schools remain open--schools for children who have been expelled or are at risk of expulsion (vulnerable and difficult children) (source), including those with an assigned social worker, those on welfare, at risk for domestic violence AP students make up 0.6% of total public school students (source) Rationale is that the school might be the only safe place for these students to go, where they are safe from abuse and can get meals
 Israel	Israel shut down schools and universities, but has reopened special education classes and pre-schools for ~52K students (source) Prioritizing special education children to ease pressure off of parents who have had to work with children out of school for a significant amount of time (source)

A Archetypes of reopening – examples of countries that are considering doing so (2/2)

Country	Measures
 Denmark	Denmark becomes the first country in Europe to relax coronavirus restrictions; children upto age of 11 (5th grade) are returning to nursery schools and primary schools (source) • Instituting <=10 students per classroom and physical distancing among students • Prioritizing younger children both because of parents' inability to return to work without their being cared for, and because of their lack of independence in self-directed learning (source) High schools, universities, and children with at-risk family members will continue remote learning (source)
 Norway	Norway's schools are slated to reopen on Apr 27 for grades 1-4 (source) Norway has opened up preschools starting this week Apr 20 after a month long closure (source) Prioritizing preschools preschool and younger children because of their relative lack of symptoms from COVID-19, "going to pre-school is safe" (source)
 Germany	German students facing graduation have been allowed to return to sit for exams; other classes remain postponed (source) (source) Schools will begin reopening on 4 May, with special emphasis on graduating classes, the oldest primary school children and students who are expected to take exams Prioritizing student sitting for exams to allow for graduation; students come to school only to take exams, sit in spaced-apart desks
 Portugal	Schools were shut down on Mar 12, but a recent plan proposed to reopen 10th, 11th, and 12th grade classes Plan for reopen has now been deferred for review until April 30th (source) Prioritizing older children ostensibly for testing and advancement to university purposes, but met with resistance because of vulnerable teacher population (source)
 France	In the first week, only the major sections, CP (6yo – start of primary) and CM2 (10yo - end of primary) will return to class. This will be followed one week later by the 6th, 3rd, 1st and 12th graders. In the third week: all the other students in kindergarten, primary, middle and high school to return to school