

# School Reopening: Managing Risks in the **Covid-19 Era**



August 17, 2020

# Executive Summary

Since the emergence of Covid-19 pandemic, school closures have disrupted vital aspects of the economic and social ecosystem in nearly every country. As the pandemic enters its sixth month, school reopening is increasingly inevitable across the globe.

School reopening is being necessitated by three key pressure points: first, the massive **learning loss** estimated to be accumulating in terms of student cognition, second, the **substantial losses and bankruptcies** being that are accruing to private schools, especially low-cost private schools in the developing world, and third, the threat of continued **vulnerability of children** outside the school environment, either to exploitation as child labour or to other forms of domestic abuse.

No education system will be able to reopen schools flawlessly. Indeed, global experience indicates that in most countries, school reopening will be followed by a subsequent closure of schools. In Pakistan's case, there is the added complexity of multiple school systems both within and beyond the public sector. As schools reopen in countries around the world, policymakers, parents and teachers should be conscious and aware of four defining realities that will shape their experience:

**Uncertainty:** the world is doing this for the first time – from public schools, private schools and madrassahs in Pakistan to schools in Western Europe and Sub-Saharan Africa. Both the spread and containment of Covid-19 have behaved differently in different places at the same time, and at different times in the same places. No one is certain about the true risks of reopening.

**Preparedness:** no matter how well prepared, schools are places of contained and organized chaos and energy. School administrators, teachers, and families of students need to see each other as partners in helping prepare for school reopening, and understand that the risk of infections are not going to be eliminated by good preparation.

**Localization:** state, provincial and national governments bear responsibility for top-level decisions, but the execution of Standard Operating Procedures (SOPs) and the responsiveness to uncertainty is a local function. In countries with low capacity at the local level, the need for robust communication and cooperation especially across all levels will be vital.

**Funding:** Covid-19 represents an unprecedented economic disruption and there will not be enough resources for all schools and all classrooms to be equally safe. Policymakers need to make informed and well reasoned judgements about how they will prioritize. Countries will need to prepare school administrators, teachers, families and citizens at large for a decision making regime in which hard choices may have to be made.

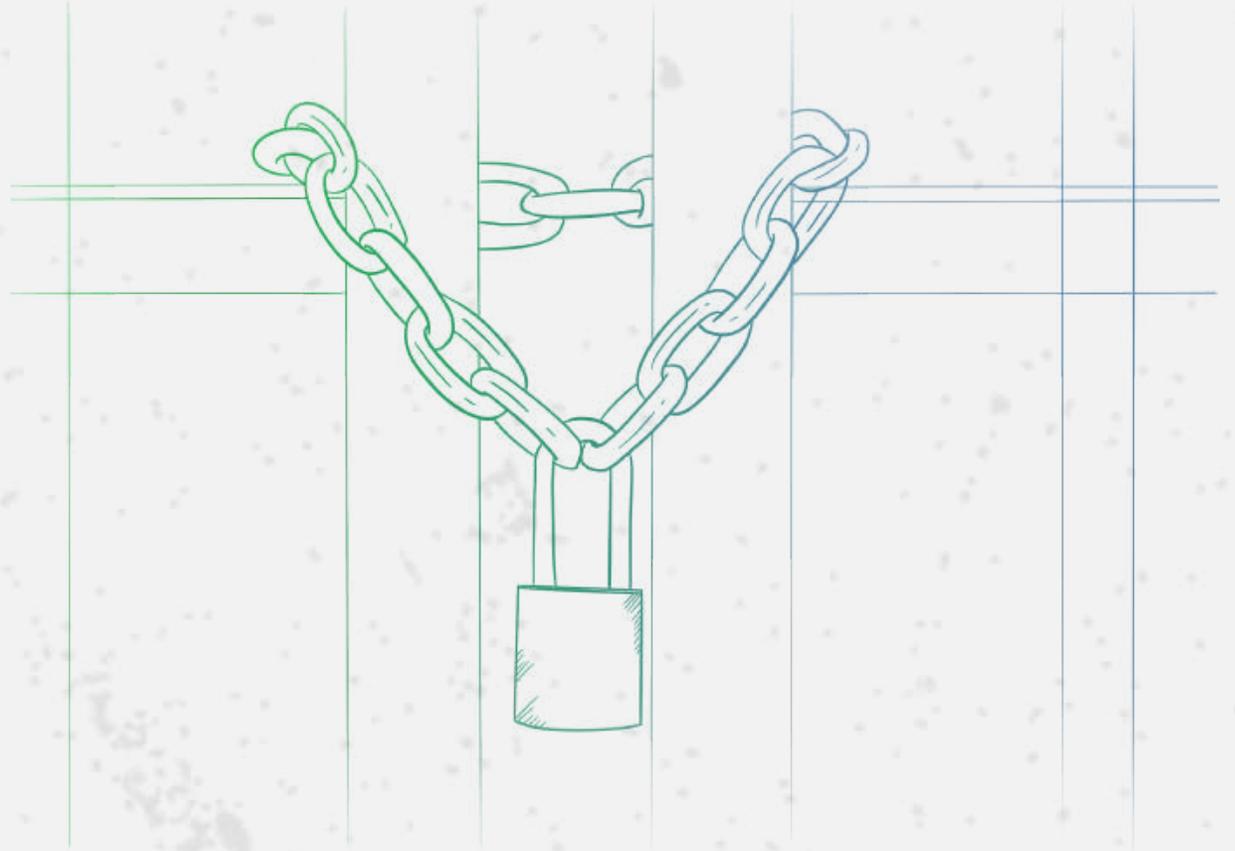
The least disruptive and traumatic school reopening experiences will be those that are able to:

1. collect, collate and **analyse** daily data from classrooms, and generate key decision-informing insights for policymakers
2. respond to new Covid-19 outbreaks with **contained and measured actions**, including selective reclosures, aggressive contact tracing, case tracking, and Covid-19 testing
3. effectively **communicate** both success and failure, as well as changes to SOPs at the local, sub-national (provincial or state) and national level in a **timely** manner

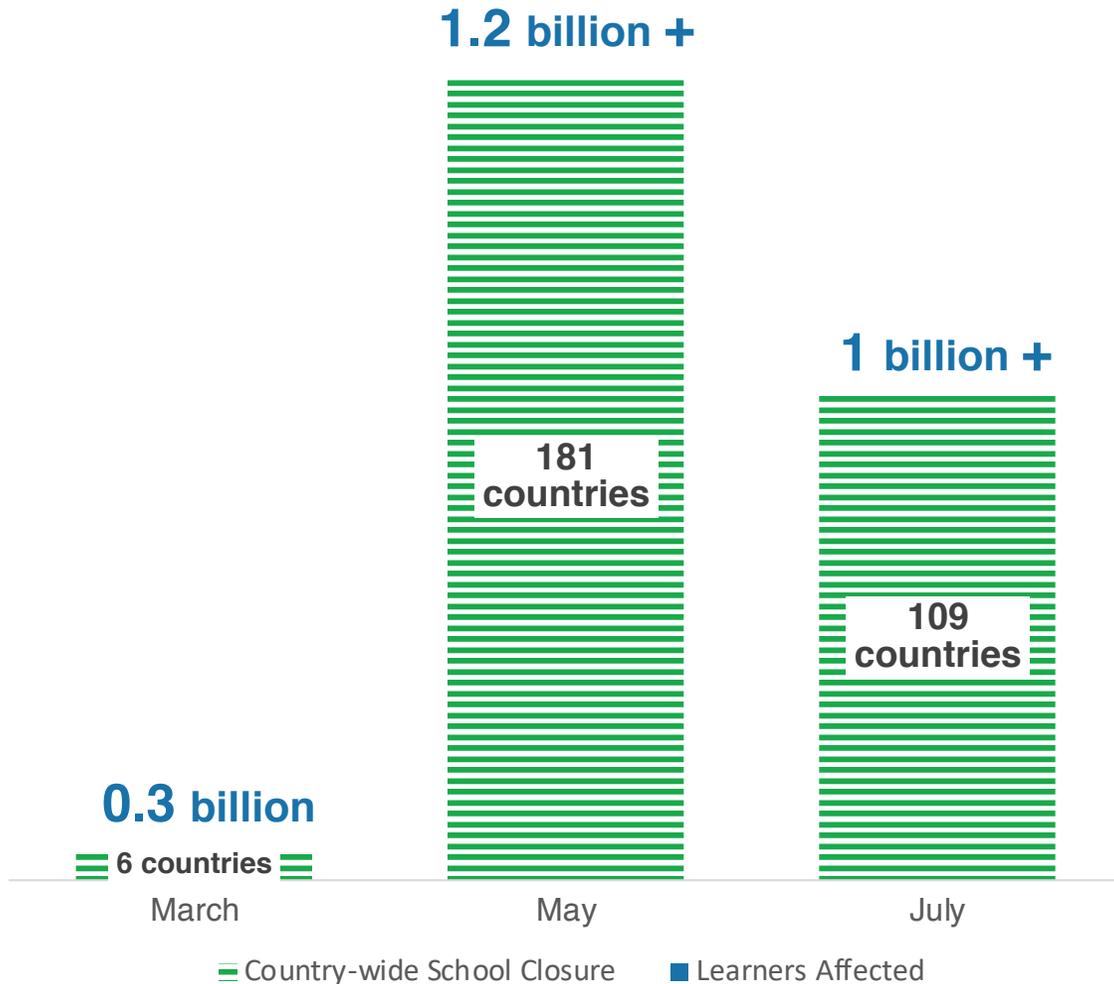
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# The Global **School Closure** Caused by Covid-19



# Global School Closure Snapshot



Pakistan was **one** of **six** countries to enact a country-wide school closure very early on in the pandemic

Since May 2020, **72 countries** have reopened schools with over **200 million students** back in school

## Scale of school closures in Pakistan

Institutions	270,000 schools/madrassas (~ 70% public sector)
Enrolment	45 million (~ 65% in public sector)
Teachers	1.65 million (~ 45% in public sector)

Pakistan has announced that it will **reopen schools on September 15, 2020** subject to continued success in containing the spread of Covid-19, with the **final decision subject to review** by the National Command and Operations Centre (NCOC)

The Pakistan Private Schools Association has announced school reopening from **August 15, 2020** (regardless of the government's plans)

# How has School Closure Impacted the World

## ACCESS

**Increased dropouts** among at-risk households as lower income families privilege income over education

**Lower new enrolments** with potential entrants into the education system either enrolling later than they would have or never enrolling at all

## LEARNING LOSS

**Weak support for learners at home** as unprepared parents and family members struggle to offer continuity

**Lack of digital readiness** given low large screen penetration, limited bandwidth and lack of digital familiarity, comfort and/or nativity among parents/families

**Limited teacher preparation** to adopt and respond with instruction and assessment to suit non-traditional means (television, radio, SMS, digital)

## ECONOMY

**Private schools (especially low-cost private schools)** under pressure to stay afloat in uncertainty with lower revenue and fixed and inflexible expense outlays

**Wage losses** of laid off, and/or furloughed private school staff and teachers

**Opportunity costs and wage losses of parents** who take leave, or quit jobs to attend to children at home

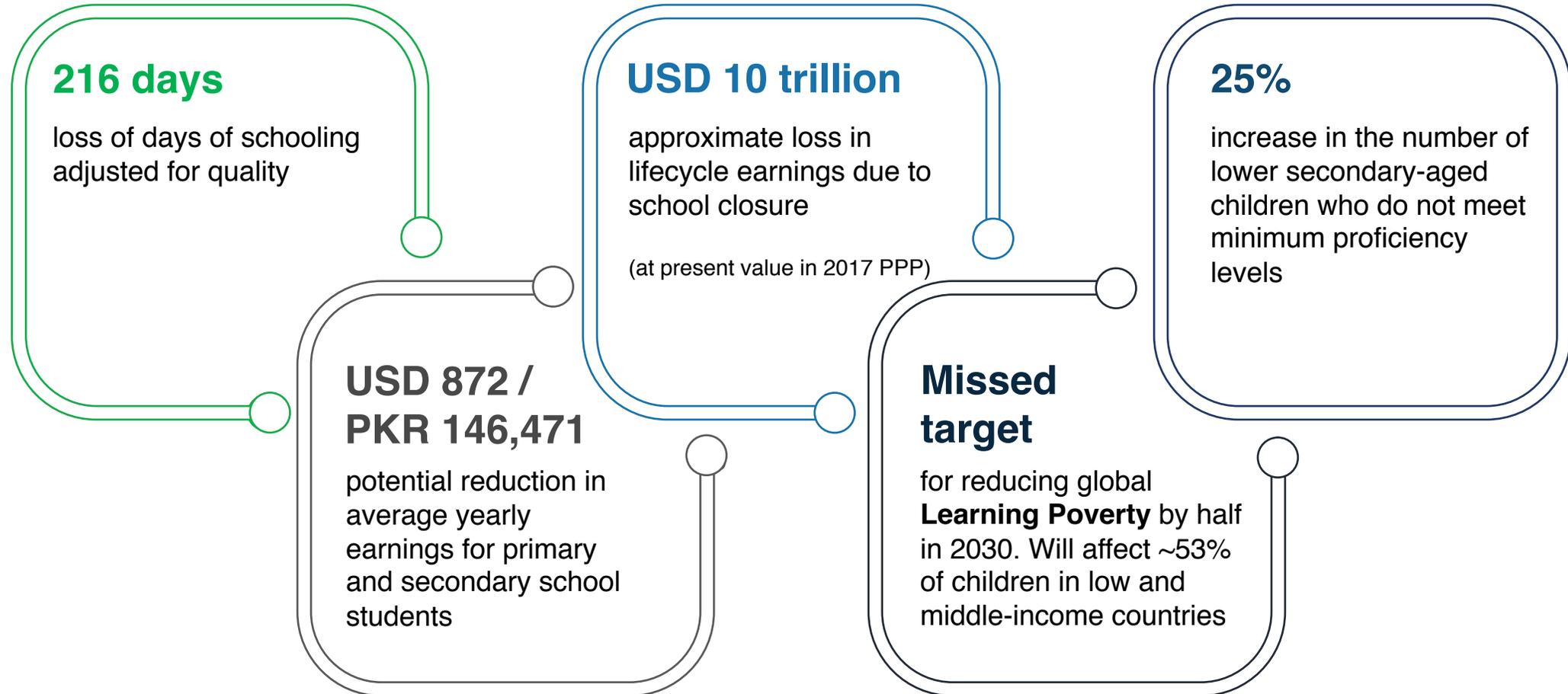
## SOCIAL

**Increased vulnerability of women and children** to early marriages, child labour, domestic abuse and sexual violence

**Mental health crisis** due to prolonged isolation and limited interaction with similar age-group community members

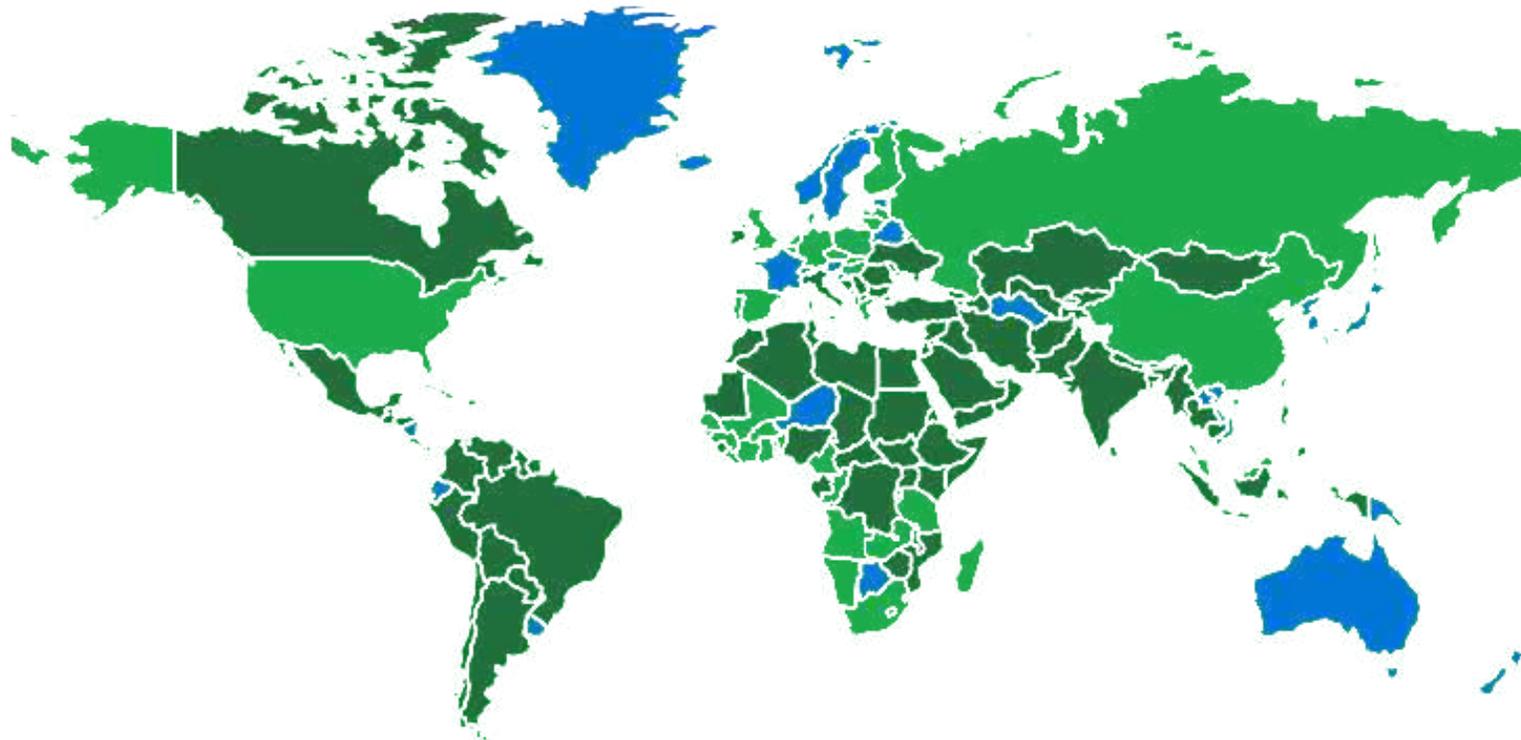
**Increased risk to already excluded groups** especially girls, migrants, refugees, minorities, people with disabilities or other vulnerable groups

# Estimating the Impact of School Closure



# Countries that have Reopened Schools

School Reopening as of July 2020



 Partial Reopening     No Reopening     Full Reopening

Schools in the wider South Asia and Middle East region are still subject to country-wide closures



## Bangladesh

No decision yet



## India

Schools are still closed; almost half the states are undecided. Delhi, Haryana and Karnataka planning to reopen in August/September



## Iran

Schools reopened in May 2020 and closed locally depending on conditions in different regions



## Saudi Arabia

School reopening planned for end of August with categorization of schools based on risk levels of virus infections

# Education Response **in Pakistan**



## Tele Education

Launch of TeleSchool (federal) and TaleemGhar (provincial) television channels airing content for grades 1 to 12 on terrestrial, satellite and cable media



## Cancellation of Exams

Cancellation of all examinations (scheduled and un-scheduled) by public and private institutions across national and sub-national administrations

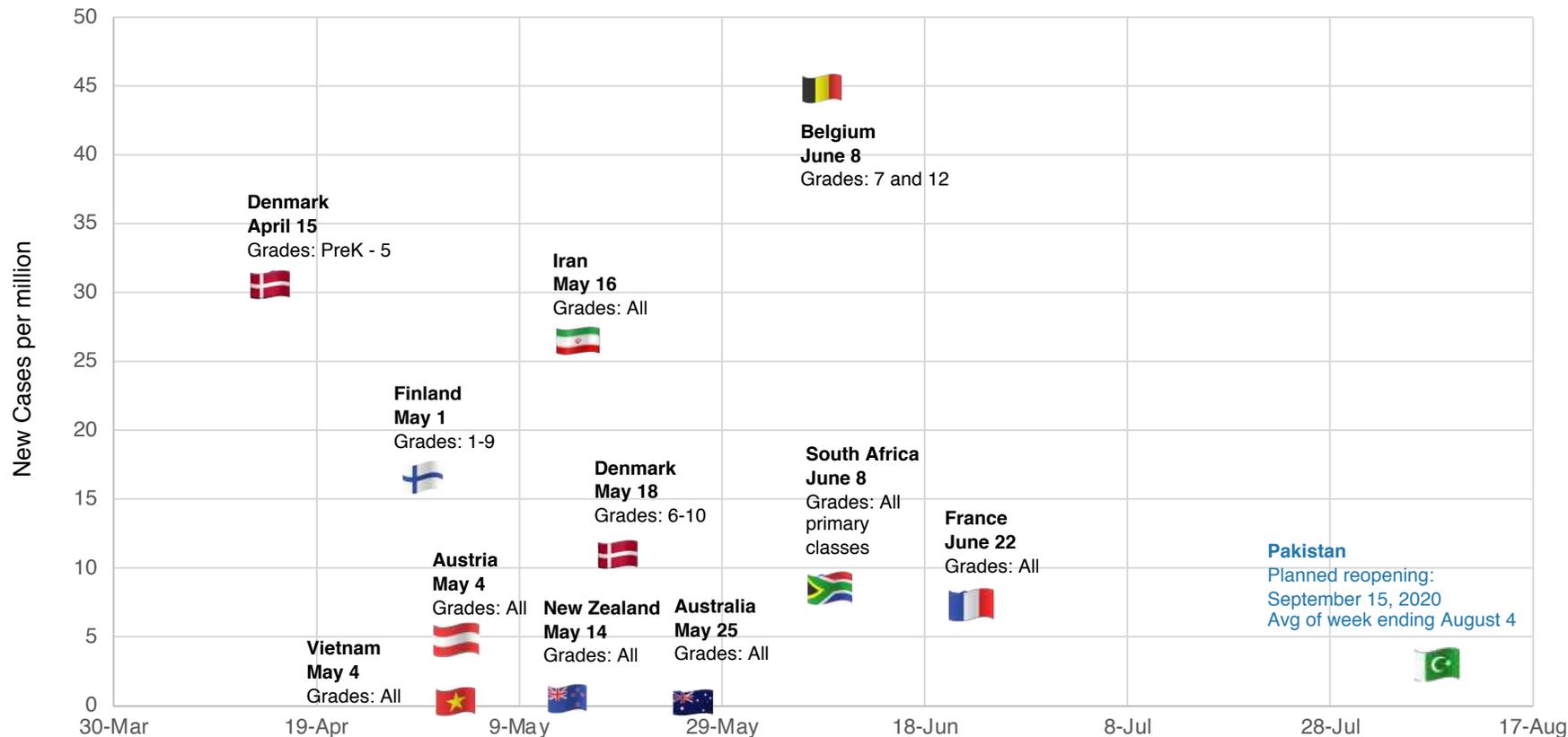


## Promotions

Default promotion for all students in grades K – 8. Students from grades 9 – 12 will be promoted and scored based on Inter Board Committee of Chairmen (IBCC) guidelines pertaining to past performance

# Covid-19 Profiles of Selected Countries that Reopened Schools

Daily average of new cases per million for the week in which selected countries reopened schools



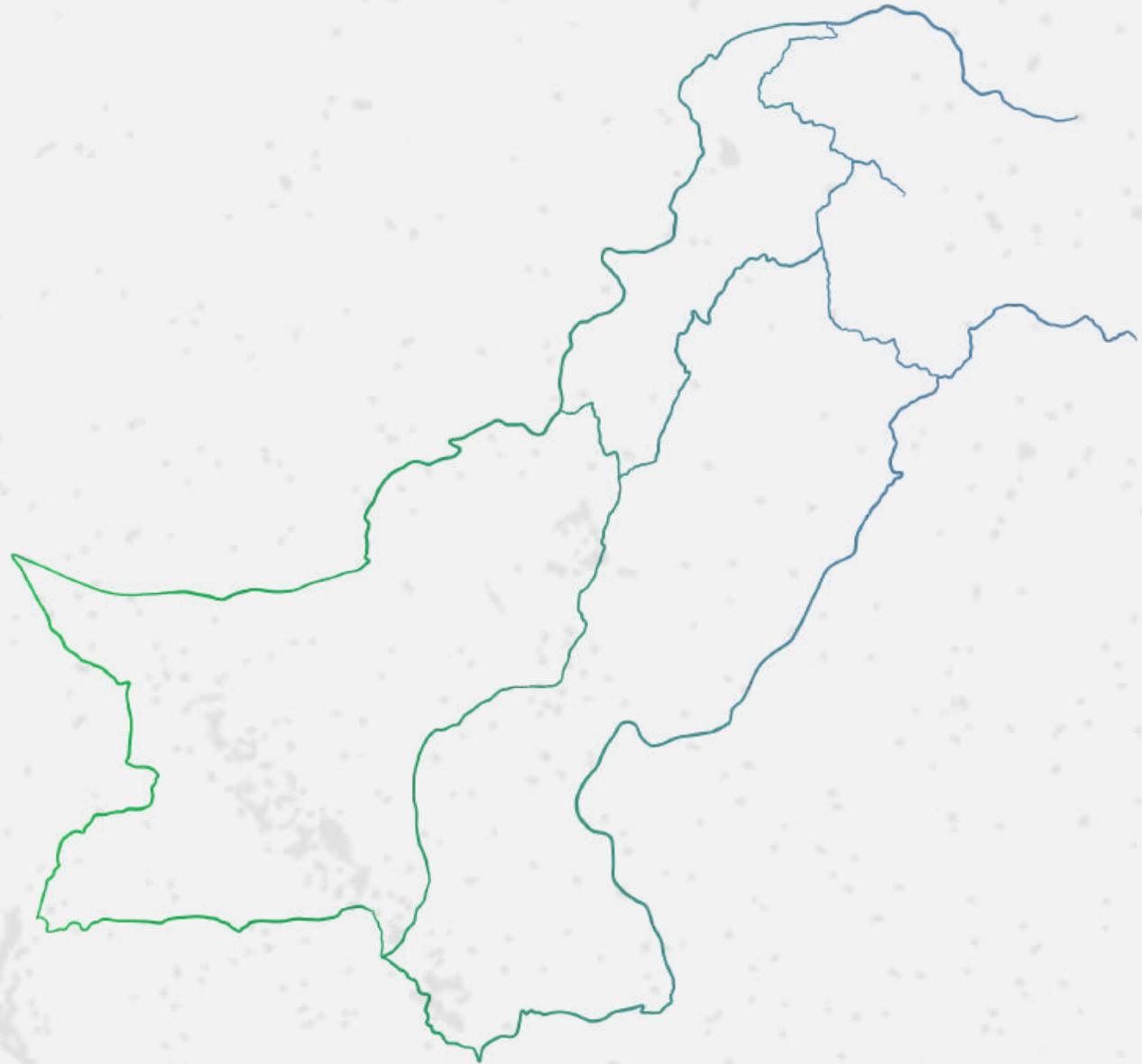
Pakistan’s decision to reopen schools after a five month country-wide closure comes with a drastic reported reduction of Covid-19 spread

The strategy of ‘Smart Lockdowns’ by the government and strong enforcement of containment measures in virus hotspots has resulted in a lower and earlier peak

The graph on the left benchmarks new cases in some countries that have reopened schools (middle and high-income countries with better health and more prepared education systems)

**Pakistan’s lowered new case levels make a plausible case for a cautious attempt at reopening schools**

# How Covid-19 Impacts Education in **Pakistan**



# How Covid-19 Is Likely to Change the Education Challenge in Pakistan

School reopening may not imply resumption of pre-closure education activities

The pandemic requires policy makers, teachers and school owners to fundamentally revisit the learning journey of students, and to identify critical interactions between teachers, students and peers

Physical distancing imposes restrictions on how different types of interactions need to be structured to enable co-curricular and extra-curricular activities

Containment protocols and implementation measures will redefine the role of schools (as physical spaces where groups of students convene) in learning pathways for students

Schools may no longer be the home for learning through in-person interactions between teachers and peers, and will potentially be re-purposed to serve as a catalyst for self-directed learning

Schools may not be a daily fixed hours routine for millions till a vaccination program for Covid-19 is implemented – multiple education calendars away!

Some grades/age-groups might not be able to get back to schools due to risks and associated safety guidelines; infrastructure/facilities limitations will add further strain on resumption of schooling

## School reopening will require:

- Reskilled teachers trained to offer instruction via a blended/distance models
- Systems for student and teacher supervision and coaching over distance with intermittent in-person follow-up
- Processes to create and disseminate learning materials, collect student work, review, and provide feedback
- Agreement on learning outcomes
- New assessments and evaluations
- Content and support for physical and mental wellbeing
- Quick response/correction mechanisms to report and fix system failures

# Focus on ...

Constructive in-person engagement is instrumental for cognitive and learning processes

Teachers will need to play a critical role in stimulating and driving self-directed learning using distance and digital tools



## Health and Safety

Minimize exposure and spread of the virus in the nexus that will form with family-student-teacher-support staff-transport interactions



## Retention and Engagement

Improve engagement with students, families and communities to identify at-risk groups and avoid drop-outs through timely remediation (especially for girls and students with disabilities)



## Adapted Learning

Prioritize minimizing learning loss through prompt interventions

Re-orient in and out-of-school blended activities to effectively address SLOs

Offer wellbeing support



## Teacher, Parent & Family Capacity

Re-skill and support teachers to offer distance-based student instruction and tracking support

Focus on behaviour change engagement for parents and families to sustain learning at home

# The Urgency & Inevitability of **School Reopening**



Schools will reopen because of pressure across three areas simultaneously ...



Learning  
Outcomes



Education  
Economics



Safety &  
Wellness

# A Worsening Learning Catastrophe

**Pakistan's current learning crisis will be further exacerbated following further losses from school closures and inequitable access to distance education opportunities**

**65%**

of Pakistani children fail to achieve the minimum proficiency level (MPL) in reading a simple text

**27%**

of children in Pakistan are out of school

Estimated learning loss ranges from **1 – 2 years** of schooling (varies with subject and grade)

Required investment to overcome losses will be **tremendously high and unattainable**

Gaps in digital access and readiness mean distance learning models will not be equitable or effective for all learners

Brimming out-of-school children crisis:

- At-risk students can drop-out if education doesn't continue
- Potential new enrolments don't take place in the wake of income pressure that households have been subjected to during Covid-19

# The Low-Cost Private School **Bankruptcy** Crisis

## Fallout from low-cost private schools

- 100,000+ low cost private schools at risk
- 900,000+ teachers employed in total; largest employers of women in Pakistan
- 20 million+ students at risk of becoming out-of-school in case schools have to close down



Leverage Public Private Partnerships (PPPs) to safeguard learners

## Bailing-out private schools is not an option

- Government is financially stretched with recurrent shortfalls in tax collection and borrowing
- Complex accountability and precedents for such bailouts will result in administrative challenges
- Public sector schools already require significant investment to improve infrastructure and facilities



State Bank of Pakistan facilities for SMEs to support recovery

## Strengthening the regulatory regime

- Massive opportunity for documentation and collaborative negotiations with private schools around a regulatory framework responsive to education quality and economic viability concerns



Private Education Institutions Regulatory Authority (PEIRA)

Provincial Revenue Authorities

Federal Board of Revenue

# The Safety & Wellness Of At-Home Vulnerable Groups

## Abuse and Violence

Staying at home exposes females (women and girls) to a higher risk of abuse and violence especially in the likelihood of partial/complete lockdowns

Being forced to stay with potential abusers and social and mental health pressures increase the chances of abuse with lower access to remedial measures for help available in pre-Covid times (helplines, leaving the house for work, school etc)

## Return to Work

Females comprise of 24% of Pakistan's labour force

Working mothers in nuclear families especially in urban centers (37% of Pakistan's population) will have to return to work to mitigate shocks to domestic income

Females engaged in the informal labour force are also at high risk of income insecurity and loss of wages

Reopening of schools offers an avenue for women and girls to return to a safer environment  
(mothers can go to work because children can attend school)

# Lessons from School Reopenings **Around the World**



# Lessons from **School Reopenings**



**Stagger reopening** across grades to prevent a major congregation in schools at once; start with lower-risk age profiles and grades



Institute SOPs across the board; on-premises checks. **Monitor community spread** of the virus and reopen only if risk is low



Detailed planning and **analysis at the school level** to tailor guidelines and devise implementation standards



**Ensure basic facilities** (toilets and hand-washing) & infrastructure availability in schools to comply with SOPs, protocols and guidelines



Limit physical interaction especially for different age groups; **maintain safe distance** and use outdoor spaces to reduce risk of virus transmission



**Prioritize learning** and focus on essential activities to restore learning; adjustments to curriculum, focus and pace of teaching

# Lessons from **School Reopenings**

## 1. **Staggered Reopening**

- Reopening can be staggered starting with younger age groups to keep infection rates in check. Evolving evidence around children being less likely to be infected or spread the virus – risks do exist!
- South Korea reopened schools with higher grades and closed hundreds of schools after spike in cases.
- Israel did not have staggered reopening. According to experts, opening all schools at once while other parts of economy were reopened has made it impossible to understand where the new cases are coming from.
- In Uruguay, data regarding digital access became essential to blend in-person and distance learning.

## 2. **Curriculum and Structural Adjustments**

- Small class sizes, combined with distancing and masks, is effective in reducing Covid-19 risk while also allowing for social interaction between students. Israel, where classes had 40+ students, observed a large increase in case numbers.
- Small class sizes create staffing and space challenges for schools with limited capacities, as observed in Denmark. Having students attend class on alternate days was useful in solving these challenges.
- Emphasis on assessment upon returning to schools allow for quick diagnosis of students' learning gaps.
- Permitting sports and extracurriculars to continue while complying with safety guidelines allows for social and emotional development.

# Lessons from **School Reopenings**

## 3. **Protective Equipment**

- Requiring masks helps prevent spread of virus. Several Covid-19 deaths were recorded among teachers in Norway and Sweden, where masks were not required.
- Masks were used to ease pressures of social distancing in Israel and Taiwan, where classes were large. Students were found to generally comply with mask guidelines until record heatwave hit Israel in May.
- Children and high schoolers are more likely to observe safety guidelines than middle schoolers. Hundreds of schools in Israel closed once a high infection rate in middle school students was observed.
- Face shields allow students with disabilities to communicate their needs better.

## 4. **Physical Distancing**

- Distance between different age groups is recommended as younger children are less likely to contract and spread Covid-19. A New Zealand high school saw 96 infections, while a neighboring elementary school had much fewer cases.
- Educators in Denmark have not found issues with students' compliance to physical distancing measures or other guidelines.
- Distancing was not required for long in Israel, where hundreds of schools were forced to close after more than 2,000 students tested positive for Covid-19 and one teacher died.





# Staggered Reopening



	AUSTRALIA	AUSTRIA	BELGIUM	CANADA	CHINA	DENMARK	FINLAND	FRANCE	GERMANY	ISRAEL	NETHERLANDS	NEW ZEALAND	NORWAY	S AFRICA	S KOREA	SWEDEN	TAIWAN	URUGUAY	VIETNAM	
Staggering by age beginning with younger students						●	●						●							
Staggering by age beginning with older students															●					
Sending all students to school at once										●										
Students with 1+ parent who does not work are asked to stay at home						●														
Staggering beginning with: Rural areas > vulnerable and at-risk groups > non-urban primary schools > non-urban high schools > all other public + private schools						●													●	
Alternating schedule of in-person and online instruction															●				●	
Schools never closed, students 16+ stayed home for remote learning																●				

# Curriculum and Structural Adjustments



	AUSTRALIA	AUSTRIA	BELGIUM	CANADA	CHINA	DENMARK	FINLAND	FRANCE	GERMANY	ISRAEL	NETHERLANDS	NEW ZEALAND	NORWAY	S AFRICA	S KOREA	SWEDEN	TAIWAN	URUGUAY	VIETNAM	
Activities that facilitate continuity of educational cycles and address educational vulnerability, i.e. exams, tutoring activities, are assumed immediately																				●
Smaller class sizes, use of “pods” or “bubbles”	●		●	●		●	●	●	●	●	●	●	●							
Staggered class scheduling, i.e. attending class in-person on alternate days	●		●	●				●		●	●	●			●				●	
Reduced school hours	●					●														
Extracurriculars and sports practices are allowed to continue with masks and safety adjustments																		●		

# Safety Protocols



	AUSTRALIA	AUSTRIA	BELGIUM	CANADA	CHINA	DENMARK	FINLAND	FRANCE	GERMANY	ISRAEL	NETHERLANDS	NEW ZEALAND	NORWAY	S AFRICA	S KOREA	SWEDEN	TAIWAN	URUGUAY	VIETNAM	
Schools close after one positive case, test all possible cases			●	●				●		●	●	●								
Schools close after two positive cases																	●	●	●	
Parents not allowed to enter schools	●		●	●		●		●		●	●	●								
Classmates, teachers sent home after one positive case		●							●											
Additional toilets and sinks installed	●					●														
Mandatory temperature checks										●					●		●		●	
Cleaning high contact surfaces and educational materials	●			●	●	●	●		●				●				●			
Regular use of hand sanitizer	●				●							●			●		●			

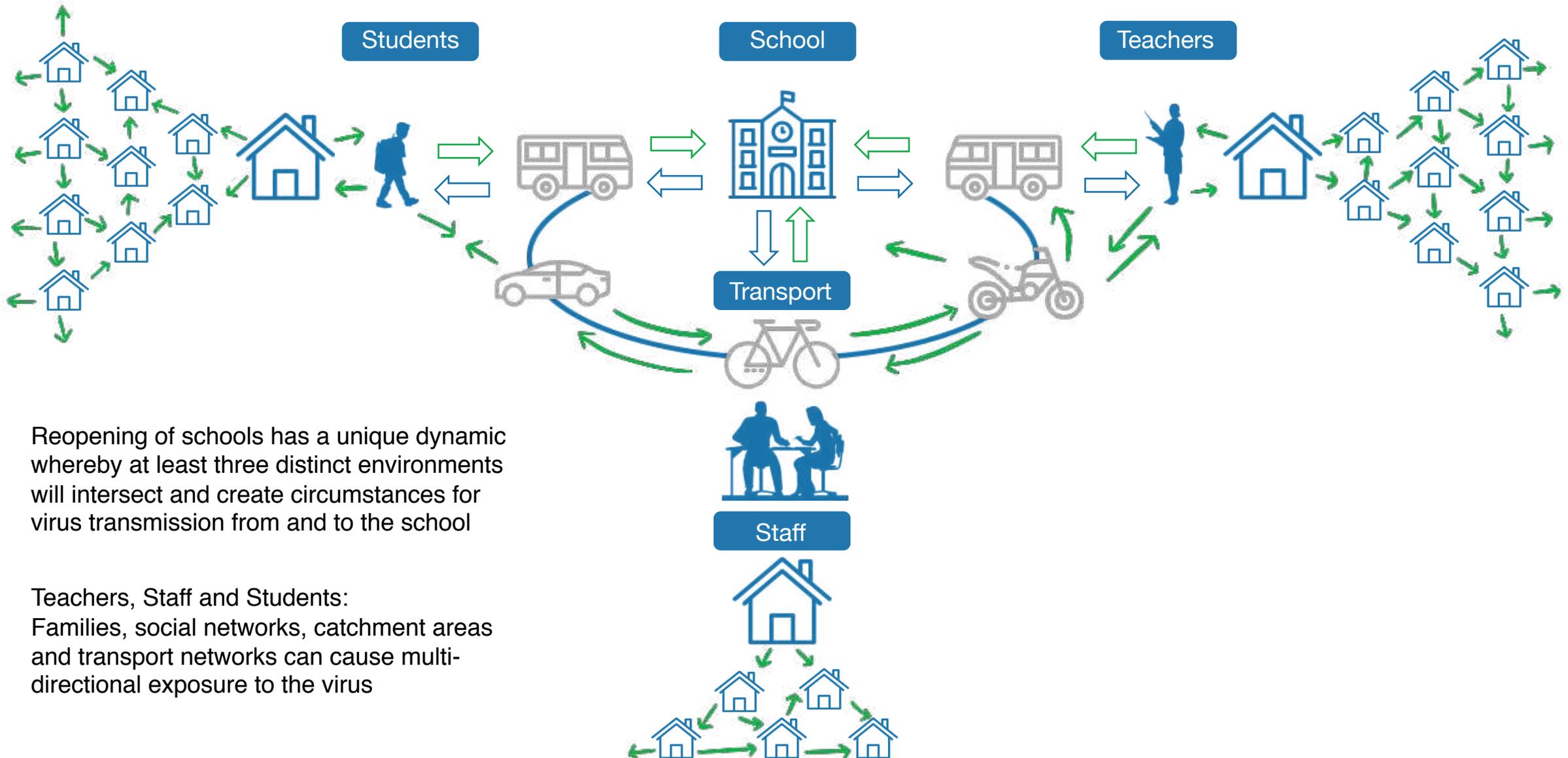
# Global School Reclosure

		May 2020	June 2020	July 2020	August 2020	Details	
Australia						Surge in cases in Victoria has led to school closure for six weeks in ten zones with almost 700,000 students back to home-based learning measures	
France						70 new cases linked to schools since reopening; 50 schools closed after cases were suspected or discovered	
Israel						16,000 children and teachers entered quarantine with more than 300 new cases; 110 schools closed after reopening	
South Korea						500 schools closed days after reopening as a new cluster of cases was discovered	
South Africa						Schools closed for four weeks as the total number of cases in the country rise to reach top five globally	
United States of America (USA)						97,000 children infected in the last two weeks of July 2020 as schools attempted reopening across different states	
Germany							2 schools closed and 1,000 students returned home after a teacher and a student tested positive for Covid-19

# The Tabadlab Covid-19 School **Reopening Handbook**



# The Transmission Risk Cycle



Reopening of schools has a unique dynamic whereby at least three distinct environments will intersect and create circumstances for virus transmission from and to the school

Teachers, Staff and Students:  
Families, social networks, catchment areas and transport networks can cause multi-directional exposure to the virus

# Design of the Reopening Strategy

A coherent and comprehensive reopening strategy must have four core elements

## Clear Objectives

Safety first: Rigorous implementation of safety measures

Learning prioritized: Robust remedial work for time lost, preparation for next steps

Agility: Closures and reopening will be dynamic in the pandemic cycles

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## A comprehensive national framework for school reopening

Guidelines for safety

Standards for service delivery

Accountability and performance management

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## Measures for enabling execution through subsidiarity (province & local)

Assess and evaluate local conditions

Devise and steer local response

Close coordination and information sharing within and across provinces

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## Collating lessons and mobilising for reforms

Data systems

Generation of evidence

Policy research, planning and implementation

# Safety, Learning & The Covid-19 Approach



## Safety

- Students
- Teachers
- Staff
- Community



## Learning

- Build back better
- Develop resilience
- Inclusive approach
- Focus on scale



## Agility

- School types and regions will have unique requirements
- Separate strategies needed for primary, middle schools and high schools
- Data driven approach to categorize and manage administrative clusters
- Education departments can consider phased reopening: tailored strategy and operational planning for different categories

# Data-Driven Planning

**Covid-19 data to identify micro and nano clusters**

Testing  
Case Incidence  
Recovery and Death rates



**Units of analysis to cover:**

**Classroom . School . Cluster .**

**Administrative boundaries (Local > District)**

Risk grading based on existing infection levels and trends

**Administrative data from schools (census/periodic monitoring) to identify readiness**

**Devise reopening strategy at a school level to ensure objectives of safety and learning**

**WASH Facilities**



Toilet/handwashing facilities

Student-to-toilet ratios

**Crowding**



Furniture and space adequacy for students (relative to enrolment)

Student-to-classroom and teacher ratios

**Teacher and Staff Profiles**



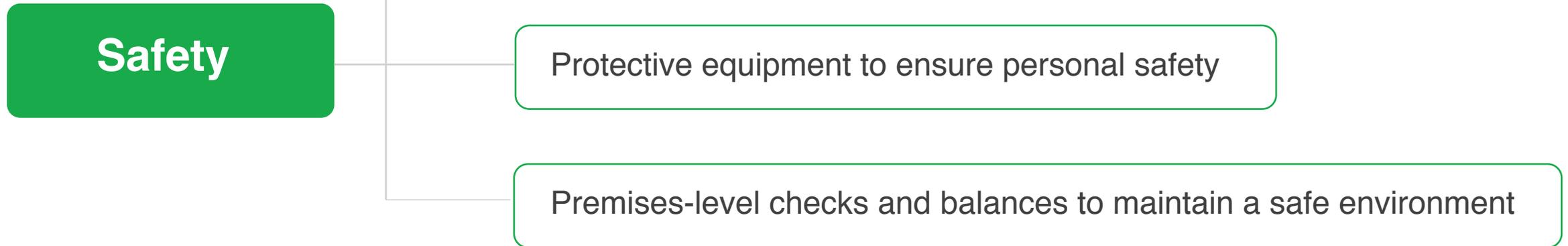
Staffing levels (greater chance for adult to child transmission for high staffing levels)

Age distribution of teachers to assess health risks

# Safety: The **Physical** Dynamic



# Managing the **Physical Space**



# Managing Density at the School

## Objective

Manage the number of teachers, staff and students present and interacting in limited spaces in schools at any given time to ensure distancing.

Options	Implications	Viability
Reopening for selected grades: Focus on low risk – ECE/Primary and critical grades – appearing for standardized tests/Board exams	High reliance on self-directed learning outside school for grades that do not resume in-school interactions	Inclusion <span style="color: red;">-</span>
	Digital access issues will require innovative, at-scale analogue solutions	Learning <span style="color: red;">-</span>
	High cost of distribution and tracking for learning materials and assessments	Safety <span style="color: green;">+</span>
		Cost <span style="color: red;">-</span>
Reopening for all grades and subjects: Accommodate students through multiple shifts to manage in-school population and associated transport and pick/drop congregations	Increased requirement for new teachers and staff/increased workhours for existing staff	Inclusion <span style="color: green;">+</span>
	Administrative protocols will have to be devised for schools that do not operate shifts	Learning <span style="color: green;">+</span>
	Adjustment overhead for parents/students to manage routines	Safety <span style="color: orange;">=</span>
		Cost <span style="color: red;">-</span>

# Managing Density at **the School**

## Analysis

The trade-off between safety and learning will require a well-crafted policy response. Safety should be prioritized as the fundamental principle while balancing learning through school-facilitated critical activities while enabling a structural shift towards self-directed learning. It will be important to start gradually and assess the impact of school reopening at a school and community level before attempting to scale back to the pre-Covid schooling structures.

Recommendations	Inclusion	Learning	Safety	Cost
Stagger reopening to start with critical grades (Grade 5, 8, Secondary and Higher Secondary Board/Certificate Exams) to ensure minimal transition loss Transition gradually to all grades: starting from low-risk age groups (ECE/primary)	=	-	+	+
Reduced number of days and time in school per grade to ensure safe distancing and allow resumption of learning-essential routines through teacher interactions, guidance and learning materials	+	=	+	+
Stagger break/recess times for attending grades to limit crowding in open spaces and reduce interactions within students	=	=	+	+

# Distancing Physical Interactions

## Objective

Maintain a safe distance (minimum 6 feet) between all attending teachers, staff and students to minimize risks of infection and achieve sustained continuity of education.

Measures	Implications	Viability
<p>Spacing out furniture placement in classes, offices and communal spaces in the school premises</p> <p>Floor markings in hallways, open spaces, stairwells etc. to identify positional spacing between students</p>	<p>Spacing out furniture will result in a lower number of students being accommodated in the existing rooms available – will support density management</p> <p>Active monitoring of in-class and out-of-class spaces will be required to ensure compliance</p>	Scale =
		Safety +
		Cost +
<p>Conduct outdoor classes and activities</p>	<p>Increases capacity by complementing indoor furniture spacing</p> <p>Dependent on availability of space within school premises to conduct outdoor activities</p> <p>Weather (high and low temperature, rain etc) and lighting (evening shifts) conditions can be restrictive</p> <p>Seating equipment (tables/chairs/mats etc) will be required for a basic learning experience</p>	Scale =
		Safety +
		Cost -

# Distancing Physical Interactions

## Objective

Maintain a safe distance (minimum 6 feet) between all attending teachers, staff and students to minimize risks of infection and achieve sustained continuity of education.

Measures	Implications	Viability
Restricting Student-Teacher Ratio (STR) to control interactions and limit exposure to large groups within classrooms (preferred STR < 25:1)	<p>Will vary according to enrolment and staffing at a school level</p> <p>Increased requirement for new teachers and staff/increased workhours for existing staff</p> <p>May require the existing school &gt; grade &gt; subject configuration to change; will result in complex administration and possible redundancy</p>	Scale 
		Safety 
		Cost 
Forms Bubbles or Pods to make small groups of students who can interact freely within the group; distance groups from each other (suggested size of bubble/pod <=6)	<p>Supports administration and learning dynamics through improved teacher interactions and intra-group engagement</p> <p>Improves space utilization by sharing of close proximity within the group</p> <p>Will require similar domestic and community conditions for the group to be safe and effective; close monitoring and evaluation of group dynamics</p>	Scale 
		Safety 
		Cost 

# Distancing Physical Interactions

## Analysis

Maintaining the recommended safe distance for schooling (6 feet) will have a pressure on infrastructure (classrooms, furniture, toilets and other essential facilities) especially in public and low-cost private schools. Adding to the existing stock of infrastructure and facilities will require lead time and funding. Managing density and distancing are intertwined and a coherent decision on optimizing both will be required to ensure safety and a gradual ramp-up for returning to school.

Recommendations	Scale	Safety	Cost
Indoor: <ul style="list-style-type: none"> <li>- Furniture placement spaced out in classrooms</li> <li>- Use of other areas like exam halls, libraries, labs to increase capacity</li> </ul>	=	+	+
Outdoor: <ul style="list-style-type: none"> <li>- Floor markings to ensure safe distance within and outside classrooms</li> <li>- Use grounds and lawns inside the school premises to setup outdoor classrooms; can accommodate more students and allow a higher STR</li> <li>- Access external public spaces/buildings e.g. parks, government buildings with open spaces, community halls to increase capacity where applicable</li> </ul>	+	+	=
Stagger break/recess times for attending grades to limit crowding in open spaces and reduce interactions within students	=	+	+

# Personal Protection

## Objective

Ensure safety of teachers, staff, students and communities through pragmatic and effective use of safety precautions that can be implemented at scale.

Options	For			Implications	Viability				
	Students	Teachers	Staff		Safety	Scale	Compliance	Cost	Sustainability
Face masks	✓	✓	✓	Provision of masks to students who can't afford them Reusability will require washable masks with a longer lifecycle Fidgeting with masks especially in summers	+	+	=	=	+
Face shields	✓			Higher durability and longer lifecycle Easier to keep on than masks Can have add-on to ensure distancing (bars/wings etc)	+	+	+	-	+
Desk/Table Shields	✓			Useful only for in-class interactions Does not guarantee aerial containment	=	=	+	-	+
PPE suits			✓	Higher safety levels among other protective equipment Reusable for short periods Comfort for day-long use may necessitate selective use	+	-	-	-	=
Disinfection tunnels	✓	✓	✓	Streamlined operational aspects for individual actions Is effective at entry/exit points only	=	=	+	-	+
Handwashing	✓	✓	✓	Extremely high time consumption for all Complex operations for supplies and water Short-lived utility	=	-	-	-	-
Sanitization	✓	✓	✓	Operational complexity for dispensation and individual use Supply management and inventory handling Safe-keeping for flammability especially in high temperatures	=	-	-	-	-
Disinfectant Wipes	✓	✓	✓	Operational complexity for dispensation and individual use Supply management and inventory handling	=	-	-	-	-
Temperature check	✓	✓	✓	Contactless temperature checks for all entrants in school Diligence and due process to ensure consistency Translate into a data stream for planners	=	=	+	=	=

# Personal Protection

## Analysis

The scale and diversity of Pakistan’s education system warrants a policy response that can be implemented uniformly across the board with a minimum standard that optimizes the equation for safety, cost and compliance. While a range of personal protection options exist, their relevance and possible institutionalization as mandatory guidelines / protocols may not yield the desired results particularly for high enrolment schools.

Recommendations	Safety	Scale	Compliance	Cost	Sustainability
<p>Premises level precautions:</p> <ul style="list-style-type: none"> <li>- Daily temperature check for all entrants inside the schools; clear thresholds and refusal to entry in case of any students/teachers/staff who show symptoms of temperature</li> <li>- Disinfection of premises and equipment before every shift to ensure a safe and hygienic learning environment</li> <li>- Adequate handwashing and toilet infrastructure and facilities (soap, water etc) to enable basic communal hygiene</li> </ul>	+	+	+	=	+
<p>Personal Protection:</p> <ul style="list-style-type: none"> <li>- Mandatory use of masks by all (teachers/students/staff) and refusal to entry in case on non-compliance; provision of subsidized/free reusable masks (one-time) for students who cannot afford it themselves</li> <li>- Mandatory use of PPE suits by support staff engaged in disinfection and hygiene management of the premises</li> </ul>	+	+	+	-	+

# School Reclosure

Many countries have had to close schools after reopening because of outbreaks in schools and communities

Safety for all will require robust mechanisms to be in place for the following:

**Identification** of symptoms at schools and preventive measures to isolate cases through rapid testing

**Tracing** of in-contact population and isolation protocols if Covid-19 cases are confirmed

**Testing** through a robust sampling strategy to monitor general levels and severity of Covid-19 cases across the country

**Containment** practices through pre-structured and approved decision matrix that enables local authorities to take swift decisions

**Information** dissemination throughout the education system(s) to share best practices and insights

Decision points for monitoring Covid-19 spread	
Number of cases in a class (Teacher / Student)	<ul style="list-style-type: none"><li>▪ Isolate cases</li><li>▪ Contact tracing</li><li>▪ Assess risk to class/school</li></ul>
Number of cases in a school (multiple classes) (Teacher / Student)	<ul style="list-style-type: none"><li>▪ Isolate cases</li><li>▪ Contact tracing</li><li>▪ Assess risk to close school</li></ul>
Number of cases in a community / school catchment area	<ul style="list-style-type: none"><li>▪ Assess risk to school based on local dynamics and interconnections</li></ul>
Number of cases in an administrative unit	<ul style="list-style-type: none"><li>▪ Assess risk to school clusters based on virus spread patterns</li></ul>
Frequency of cases and possible trajectory (past trends will be important to understand scale and impact of decisions)	

Schools reopening is not expected to be a permanent decision and will have to be reviewed based on waves of Covid-19 and resulting spread at a local level

Based on international experience thus far, schools will close again and readiness is essential!

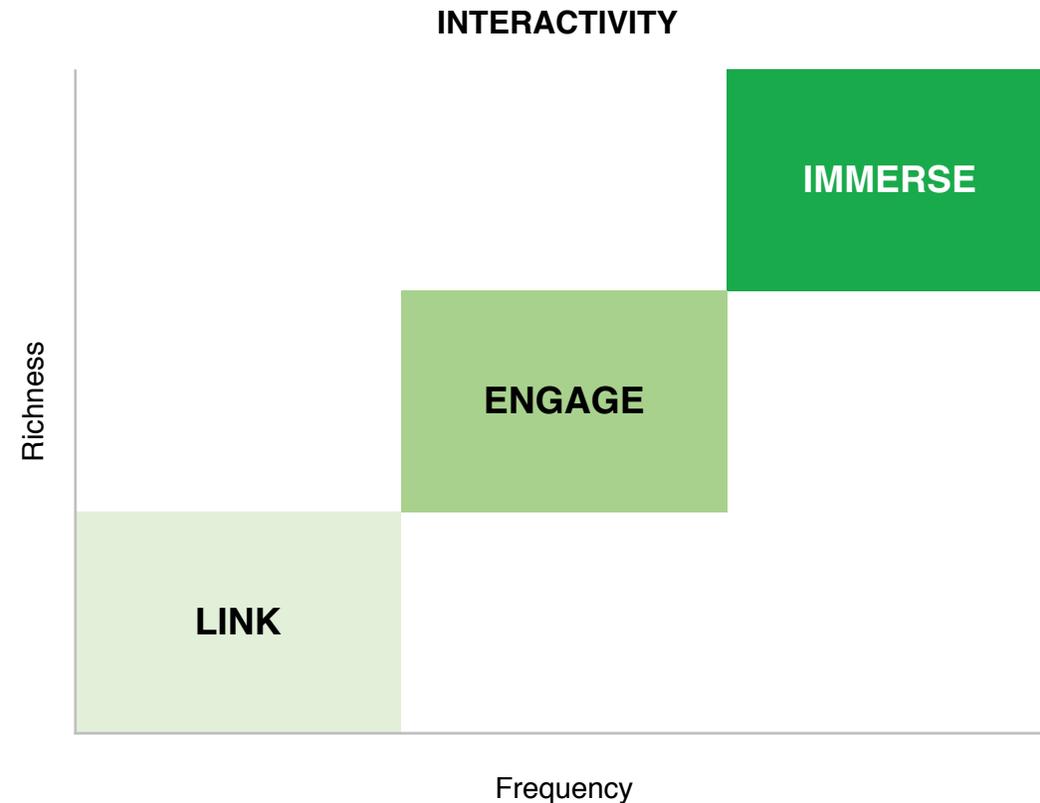
# Learning: The **Cognitive** Dynamic



# Temporal Phasing

	Immediate – Short	Medium	Long
<b>Timeframe</b>	<p>2020 – 2021</p>	<p>2022 – 2023</p>	<p>2024 onwards</p>
<b>Conditions</b>	<p>Onset of Covid-19 with nationwide school closure</p> <p>Reopening based on virus containment measures</p> <p>Possibilities of second waves may continue to cause disruptions to regular education calendars due to intermittent school closure</p> <p>Decision-making is expected to be based on local/pocket level depending on local conditions</p>	<p>Vaccine for Covid-19 starts to become available; chances of improved immunity to a certain extent</p> <p>Complemented by mass level awareness and understanding of precautions and treatments.</p> <p>SOPs for follow-on waves are matured; teacher training / capacity building efforts have been undertaken</p> <p>Improvements to digital access and development of pedagogical and learning aids that do not rely solely on technology</p>	<p>Expansion and readiness of digital infrastructure, access to internet and devices, availability of a range of systems/platforms</p> <p>National/provincial EdTech strategies and action plans have started to mature</p> <p>A robust pandemic response framework and readiness are in place</p>
<b>Audience</b>	<p>Enrolled Students</p>	<p>Enrolled Students</p>	<p>OOSC</p>
<b>Focus</b>	<p>Phase I: Schooling Continuity</p> <p>Phase II: Learning Continuity</p>	<p>Learning Enhancement</p>	<p>Schooling + Learning</p>

# Modes of Learning



## Immerse

Relies on learning media that enable use of integrated media and real-time interactions to facilitate consumption of education content

Web and mobile learning applications with/without learning management systems  
Digital classrooms learning environments  
Blended learning solutions in classrooms

Delivery Channels: Laptops/Computers, Smart devices (phones/tablets), Internet (fixed/mobile)



## Engage

Relies on learning media that enable consumption of education content with complementary interactions that are standardized and not fully integrated

Television/Radio Channels: Broadcast video/animation-based content  
IVR/SMS services to deliver audio content  
Offline digital content using SD Cards, Flash Drives

Delivery Channels: Television sets, Radio sets/Radio Receivers in cell phones, Cell phones (smart phones not required)



## Link

Relies on learning media that enable consumption of education content without significant external help or environment stimuli during the consumption process

Paper materials: books, workbooks, guides, tailored material, writing material, visual aids like flash cards and charts, lesson plans, time-table  
Physical materials: blocks, games, sliders, figures, models, instruction guides)

Delivery Channels: Delivered through mail/post and/or local teachers/officials/community leaders

# Placing Learners at **the Centre**

Diagnosing learning levels (and loss) across-the-board

Identifying low-risk learner groups (early grades/children younger than 10 years)

Activities and milestones to develop tailored learning paths (adjustment of curriculum and pace); teaching at the right level



Identifying high priority learner groups (critical examinations)

Understanding requirements & needs, access opportunities; organize learners by ability

Continuous evaluation (formative and summative) of outcomes at micro frequency to orient and reorient focus on learning

# Blending Education in **the New Normal**

## School

Enable key interactions between students and teachers to get learning on track

Guidance, materials and structured activities to transition to self-directed learning

Pedagogical enhancements and teacher re-orientation to focus on learning and critical paths to boost achievement levels

Community development to take on a supplemental role in learning; prevention and early identification of wellness issues

Assessments and evaluations; reporting on learning outcomes



## Students & Learning

Sustained learning experience

Restoring a baseline level of normalcy to social interactions and peer-engagement



## Distance Tools

Content availability and learning continuity outside schools (time in school < time out of school)

Self-directed learning through time-tables, materials, exercises and self-checks

Sustained virtual interaction with teachers for queries, guidance and help

Datafeed to enrich administrative data for understanding response to interventions

Iterative enhancements to learning models and optimization for improving delivery (digital and analogue)

# Improving Learning Outcomes

- Establish daily tutoring to provide focused, small group learning support (upto 60 mins) outside school hours
- Bubbles can all be allocated the same tutor, thus maintaining physical distancing
- Options are not mutually exclusive, and will require adequate budgetary allocations

## Implications

- Cost pressure on school systems to provide adequate tutoring and coaching for the target learning outcomes
- Potential positive and negative impacts of mixing various learning levels, and systems of education

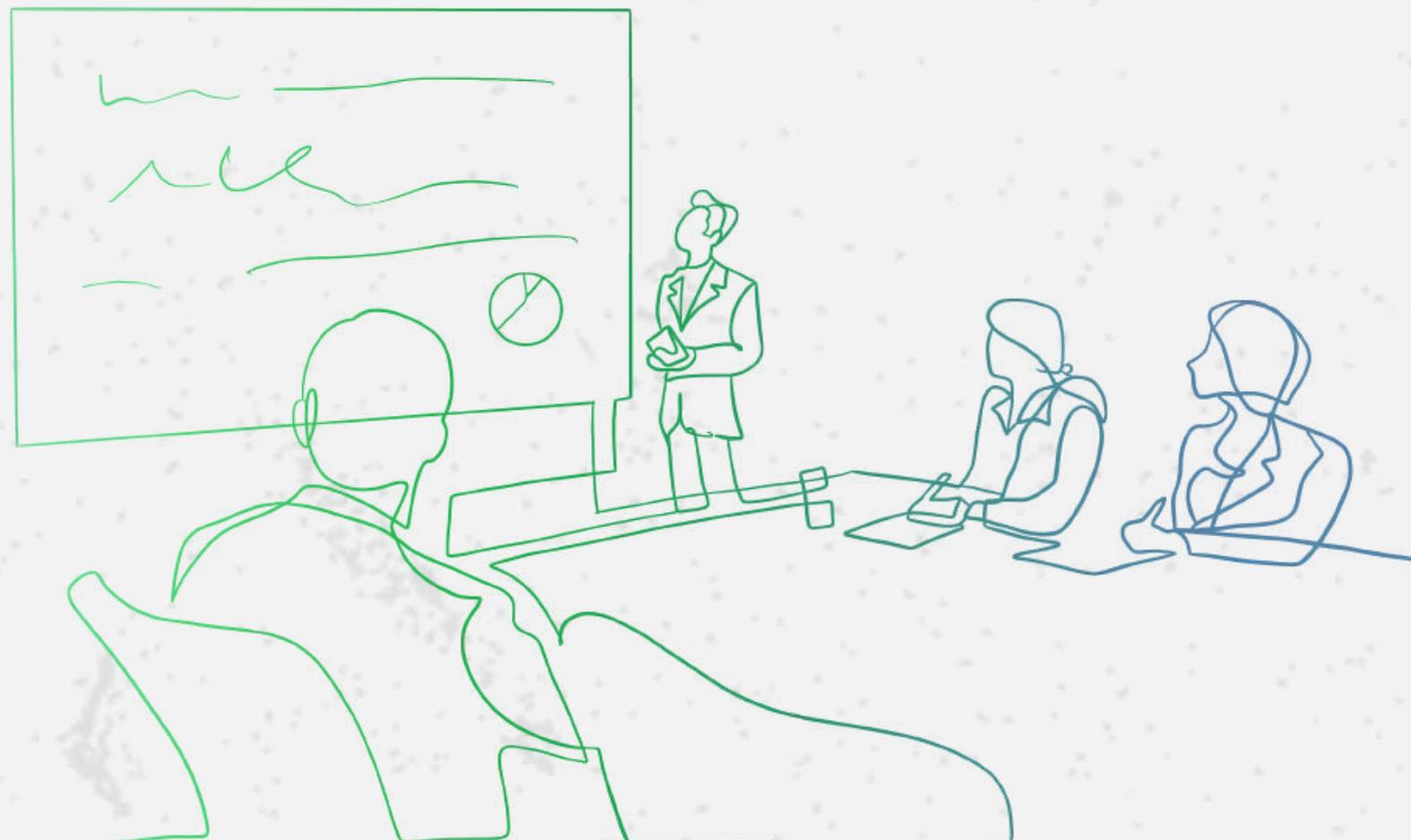
### Public Schools

### Low-cost Private Schools

### Non-profit Schools

Non-salary budgets for recruiting additional tutors	Use of SBP facilities for refinancing of salary costs	Seek community support to identify volunteers who can support learning activities
Emergency funding available at Federal level allocated to high-risk areas	Hire community based tutors; Over-time payments for existing teacher workforce	Offer services (training/research) to support public sector planning as an augmented revenue model
Public-private Partnerships (PPPs) to implement accelerated learning programmes. A shared programme can help cover costs for private/non-government schools while subsidizing cost for public schools. Community level engagement in clusters can help identify and address learning, wellness and continuity challenges irrespective of the school base.		

# Getting It Done



# Punjab Health SOPs



No. SO (EP&C) 1-8/2020  
**GOVERNMENT OF THE PUNJAB  
PRIMARY & SECONDARY  
HEALTHCARE DEPARTMENT**

Dated Lahore the 7<sup>th</sup> August, 2020

To

1. Secretary to Government of the Punjab, School Education Department.
2. All Commissioners in the Punjab.
3. All Deputy Commissioners in the Punjab.
4. All Chief Executive District Officers District Health Authorities, Punjab.
5. All Chief Executive officers, District Education Authorities, Punjab.

Subject: **SOPs FOR SCHOOLS AND EDUCATIONAL INSTITUTES TO PREVENT COVID-19 SPREAD WHILE RESUMPTION OF EDUCATIONAL ACTIVITIES IN THE PROVINCE**

On the recommendations of Technical Working Group (TWG), Primary & Secondary Healthcare Department (P&SHD) is pleased to issue following 'Standard Operating Procedures' (SOPs) for reopening of schools in the province:

Issuance of SOPs by Primary & Secondary Healthcare Department, Government of the Punjab

Comprehensive coverage of the spectrum of precautionary measures that should be adopted and implemented – personal, premises, emergency

Will have to be translated into School Reopening plans and SOPs for implementation (different for each type of school)

Contains idealistic recommendations that will have to be classified into mandatory and preferred for ensuring a uniform approach to safety

# School Infrastructure

Available



Do schools have the basic requisite facilities?  
Toilets, washing areas (using latrines as proxy for hand-washing facilities)

**Non-universal availability (public)**

**Disparity among provinces, districts and urban-rural (public)**

**Limited information (private)**

Functional



Are the requisite facilities in working order?  
Running water, faucets, soap, drainage ...



**Thorough monitoring and status reporting required**

**Fully functional facilities will be required at all times**

Adequate



Will the requisite facilities be sufficient for students, staff and teachers for Covid-19 safety precautions?  
Number of wash basins, taps, water supply, soap ...



**Availability and need will have to be estimated based on enrolment and staffing levels**

**SOPs and time taken will determine additional requirements**

# Simulating what will happen in schools

Selection of one school from each province to simulate complexity of implementation of Covid-19 safety precautions

	Balochistan	Khyber Pakhtunkhwa	Punjab	Sindh
School Name	GBPS Lawarra Mulla Abdul Jabar	GGPS Aba Khel	GPS Kabli	GBPS Shahbaz Colony Larkana
Provincial EMIS Code	4690	20386	33220434	413020372
District	Zhob	Nowshera	Jhang	Larkana
Level	Primary	Primary	Primary	Primary
Enrolment	34	566	201	397
Teachers	2	10	6	14
Toilets – Nos. – Status (F/NF)	Yes – 2 – NF	Yes – N/A – N/A	Yes – 4 – F	N/A



# Time Simulation

Punjab SOP a. (1): Students should be encouraged to practice frequent hand wash with soap and water for 40 seconds or rub with >60% alcohol-based sanitizer for 20 seconds

	Balochistan	Khyber Pakhtunkhwa	Punjab	Sindh
School Name	GBPS Lawarra Mulla Abdul Jabar	GGPS Aba Khel	GPS Kabli	GBPS Shahbaz Colony Larkana
Enrolment	34	566	201	397
Toilets (Actual Status)	0	?	4	?
Toilets/Handwash Units (Assumption)	2	8	4	6
Time required (minutes) for handwashing (once)*	14	59	42	55
Time required (minutes) for hand sanitization**	2 – 3	8 – 10	3 – 4	6 – 8
Other considerations	<b>Supply chain:</b> ordering, storage, procurement and management of inventory <b>Cost:</b> allocations, releases and financial discipline <b>Infrastructure:</b> Upgradation of facilities to ensure availability, functionality & adequacy at all times <b>Safety:</b> most sanitizer is flammable			

\*assuming availability of functional handwashing units (sinks/basins/faucets) in the school premises

\*\*depends on dispensation mechanism of sanitizer (assuming sanitizer is dispensed to students with minimal time overhead e.g. at gate / class entrance)

# Cost Simulation

Punjab SOP a. (1): Students should be encouraged to practice frequent hand wash with soap and water for 40 seconds or rub with >60% alcohol-based sanitizer for 20 seconds

	Balochistan	Khyber Pakhtunkhwa	Punjab	Sindh
School Name	GBPS Lawarra Mulla Abdul Jabar	GGPS Aba Khel	GPS Kabli	GBPS Shahbaz Colony Larkana
Enrolment	34	566	201	397
Toilets/Handwash Units (Assumption)	2	8	4	6
Bars of soap required for handwashing per day*	1	11	4	8
Cost of soap per month**	PKR 1,100	PKR 12,100	PKR 4,400	PKR 8,800
Cost estimates	<b>Assuming a per student, per month cost of PKR 20, the total national cost of soap at public sector schools alone, given approximately 24 million students enrolled in the public sector will be roughly PKR 480 million.</b>			

\*assuming roughly fifty handwashes per bar and availability of functional handwashing units (sinks/basins/faucets) in the school premises

\*\*assuming PKR 50 per bar of soap

# Strategic Focus

Synergies between national, provincial and local administrations

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Engagement and participation of frontline staff early in the process to avoid a top-down response that does not factor in ground realities

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Reimagining public-private partnerships to ensure private schools especially low-cost service providers are included in a holistic response that aims to collaborate resources and jointly achieve outcomes

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A comprehensive strategic communication and engagement plan for enabling communication between the political leadership, bureaucracy, frontline workers, families/parents and students with tailored messaging and outreach channels

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# Tactics

Implementation readiness will require multi-stage planning, coordination and implementation across institutions, tiers and contexts. An effective and comprehensive national response cannot be delivered in silos and hence requires open and active collaboration between federal, provincial and local authorities, development partners and other enabling agencies.

## Plan



### **Map the system, and sub-systems:**

Data sourcing, needs assessments, diagnostics

### **Understand the learner groups:**

Segmentation and micro-segmentation to identify target audience

### **Design the response:**

Development of strategy and action plan based on local conditions

### **Plan for delivery:**

Detailed work planning to implement action plans – capacity, resourcing, programming

## Implement



### **Implement – Pilot:**

Gradual school reopening to understand and test modalities and response

### **Implement – Scaling-up:**

Increasing scale as informed by findings and insights from the pilot

## Monitor



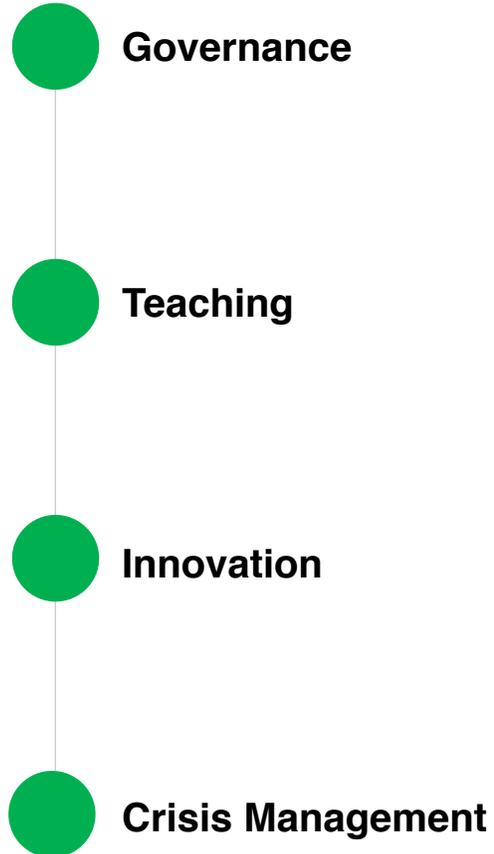
### **Assess & Learn**

Continuous evaluation with a data-mindset to enable swift and informed decisions

### **Adapt, Optimize & Improve**

Continuous evolution based on learnings to achieve outcomes

# Boosting System Capability



- Planning, implementation and monitoring of a much more complex system of education
- Oversight and coordination across public and private schools
- Additional implementation and compliance of safety guidelines and prevention protocols
- Proactive decision making and rapid response to avoid a health crisis
- Strong accountability for performance and/or negligence

- 
- Understanding of distance and blended learning models and required upgrades to existing pedagogical practices
  - Enhance teaching interactions to include support for interactions beyond the school/class – focus on wellness
  - Develop local support and peer groups to disseminate information and share practices that work

- 
- Support and encourage local models and innovation for improving education delivery and engagement
  - Recognize, promote and scale-up local innovations
  - Create a culture of innovation-by-all to spur community interest, participation and ownership

- 
- Preparedness of provincial and local tiers of administration and communities on containment and preventive practices for Covid-19
  - Widespread awareness of response plans and protocols
  - School-level preparedness to implement initial response protocols
  - Data streams to support timely preventive action
  - Crisis communication systems (digital and analogue) to inform communities and stakeholders in a timely manner

# Responsibility Matrix

Stakeholders	High-level Roles
<b>National &amp; Provincial Leadership</b>	<ul style="list-style-type: none"><li>▪ Vision setting . Ownership and priority . Effective inter-provincial coordination . Decision making</li></ul>
<b>NCOC</b>	<ul style="list-style-type: none"><li>▪ Cohering &amp; analysing data and insights by collating local/provincial inputs</li><li>▪ Identifying options and proposing key decisions</li></ul>
<b>Education Planners – Federal</b>	<ul style="list-style-type: none"><li>▪ National priorities . Driving synergies . Frameworks and systems . Emergency resources</li></ul>
<b>Education Planners: Provincial / Sub-provincial</b>	<ul style="list-style-type: none"><li>▪ Lead local planning &amp; implementation . System-wide capacity &amp; readiness . Collaboration with other units</li></ul>
<b>District Administration</b>	<ul style="list-style-type: none"><li>▪ Case tracing &amp; tracking . Coordination between DOs, AEOs, administration, province &amp; national leadership</li></ul>
<b>School Administration</b>	<ul style="list-style-type: none"><li>▪ Understanding of local needs . Teacher motivation &amp; performance . Curation of learning experience</li></ul>
<b>District Committees</b>	<ul style="list-style-type: none"><li>▪ Reviewing implementation of SOPs . Identifying potential hotspots . Ensuring adequate administrative support to schools</li></ul>

# Responsibility Matrix

Stakeholders	High-level Roles
<b>Teachers</b>	<ul style="list-style-type: none"><li>▪ <b>Appreciation . Self-capacity building . Engagement with communities . Information &amp; feedback . Proactive support</b></li><li>▪ Ensuring SOPs are enforced . Identifying potential outbreaks and notifying relevant officials . Sharing information with parents on SOPs regarding, class times, social distancing, pick and drop routines</li></ul>
<b>SMCs/Communities</b>	<ul style="list-style-type: none"><li>▪ Support education administration . Develop shared ownership of learning . Mobilize &amp; engage local support</li><li>▪ Working with head teachers to ensure SOPs are enforced</li><li>▪ Ensuring adequate use of non-salary/PTC/SMC funds</li><li>▪ Awareness building within communities</li></ul>
<b>Families / Parents</b>	<ul style="list-style-type: none"><li>▪ Open engagement with schools, within communities . Understand &amp; facilitate students . Safe environment</li><li>▪ Adherence to guidelines and protocols</li><li>▪ Notifying school administration of potential outbreaks</li></ul>
<b>Students</b>	<ul style="list-style-type: none"><li>▪ <b>Learning outcomes . Establish self-discipline . Develop peer-networks for support . Proactivity in learning &amp; seeking support</b></li></ul>

# Monitoring Compliance

## Expand monitoring regime to include private schools in addition to public schools

Regular monitoring & evaluation by education departments with additional indicators focusing on compliance with guidelines and SOPs

Increased engagement of district administration, committees and area officers

Community engagement to identify volunteers and leaders to enhance outreach for self-implementation of SOPs and improve civic monitoring at schools

Augment state monitoring capacity by using health staff (where available) for additional spot checks

# Improving Data-Driven Decisions

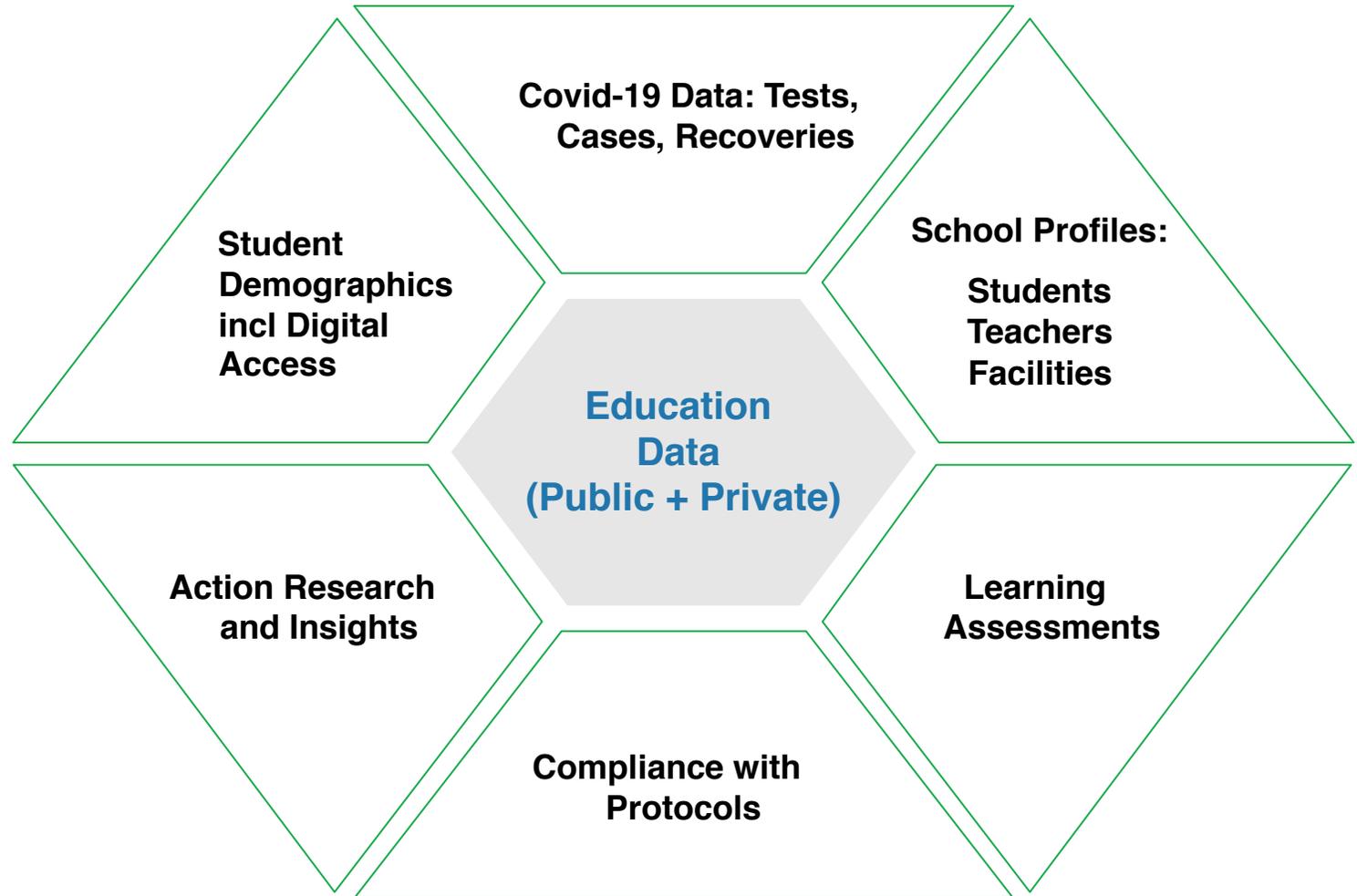
Reopening schools will require a major upgrade to the existing education data regime and systems

Real-time data across a range of indicators and decision support variables will be required to achieve the objectives set forth

Evidence-based decisions will have to rely on robust administrative data and focused & timely research (primary and secondary)

## Key decisions to be supported with data

- School Reopening and Reclosure
- Performance Management / Accountability
- Optimizing Physical Space Management
- Enhancing Learning Interventions
- Proactive Communication



# Risk Analysis

## Risk

## Mitigation

### Weak governance and accountability

- Enable and empower education machinery at District and sub-District level to make decisions
- Ensure robust and evidence-backed data regimes to improve visibility of activities and outcomes
- Timely reviews with clear actions and accountability by provincial / federal decision makers – school closure, penalties, performance review implications

### Alignment of incentives between public & private actors

- Uniform standards and guidelines across both public and private schools
- Include private sector in the monitoring regime for compliance of guidelines
- Ensure strict and timely actions to create strong deterrence

### Inadequate Funding

- Manage emergency funding already received for targeted interventions to minimize risks to education
- Innovate on PPPs to create synergies
- Prioritize spending on high-impact areas
- Mobilize development assistance (multilateral and bilateral) against robust planning and implementation of programmes

### Uniformity of response guidelines

- NCOC as a coordinating mechanism to ensure agreement on minimum standards
- Allow for localization of response and management based on conditions – monitoring of infection levels and conditions; two-way information flow
- Address financing gaps at provincial level to enable a standardized response

# Immediate Next Steps

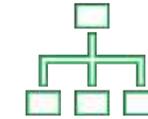
Establish a coordination mechanism in education ministries and departments: clarity of roles and responsibilities



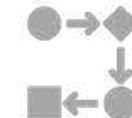
Develop and approve SOPs for school reopening, learning continuity – identify the red-line conditions



Detailed implementation planning and risk management to execute school reopening and respond to situations



Strengthening of the governance and accountability framework to support compliance with SOPs



Timely planning and completion of critical procurement/sourcing activities



Design and implement a capacity building plan for planners, administrators and teachers



Roll-out a holistic internal and external communication plan tailored to local contexts: demystifying school reopening for teachers, parents and students

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