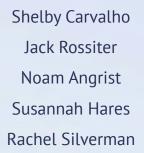


Planning for School Reopening and Recovery After COVID-19

An Evidence Kit for Policymakers



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Introduction

Most governments around the world have temporarily closed schools in an attempt to contain the spread of the COVID-19 pandemic. Many have launched distance learning programs and are beginning to plan for recovery, a phase that involves much more than reopening the gates and readmitting students.

During the response, there may be opportunities for governments to improve practices and "build back better," but decisions are being made under extreme uncertainty. In this context, education policymaking is particularly difficult but will be strongest when it is: (1) informed by existing rigorous evidence; (2) approached with a long-term perspective that prioritizes flexibility, communication, and trust; and (3) able to be adapted based on new data and information gained from community engagement and monitoring.

The short and accessible briefs collected here draw on rigorous evidence relevant to the COVID-19 emergency to formulate recommendations for policymakers on five critical dimensions of school reopening and recovery:

- 1. Engaging communities in reopening plans
- 2. Targeting resources to where they are most needed
- 3. Getting children back to school
- 4. Making school environments safe
- 5. Recovering learning loss and building back better

The briefs are accompanied by CGD's COVID-19 education policy tracker, which provides up-to-date information on each country's policy response and reopening plans, as they emerge.

The World Bank, the World Health Organization, UNESCO, UNICEF, Education International, the Interagency Network for Education in Emergencies, and the World Food Programme have released comprehensive guidance on education policy responses to COVID-19 and planning frameworks for school reopening. This evidence kit complements those resources.

In areas where the rigorous evidence is thin, we highlight this and emphasize the importance of generating knowledge during this pandemic to inform policy adaptations now and in future crises. Each brief is complemented by an in-depth technical appendix with details on the evidence supporting key findings and recommendations.

There is still a huge amount to learn about the impacts of each country's education policy response to COVID-19; it is too early to speculate on the effectiveness of different choices, or their potential in different contexts. We will be keeping our eye on the evidence as it emerges and, in the months ahead, we will release additional analyses of the latest evidence on promising practices and preparing for future emergencies. In the meantime, CGD's COVID-19 education policy tracker provides up-to-date information on each country's policy choices.

1. Engaging Communities in School Reopening Plans

Successful reopening and recovery rely on public trust in the government. Trust can be built and maintained by engaging communities in planning for reopening and by clearly communicating through credible channels.

Policymakers will want access to evidence that supports their planning and decision making, and to draw on relevant experience from elsewhere. This brief summarizes available rigorous evidence regarding the engagement of communities in planning for school reopening and identifies two recommended actions for policymakers based on that body of evidence.

Summary of Evidence

Trust, risk, and community participation

A robust body of evidence suggests that establishing public trust, managing fear and perceptions of risk, and leveraging community engagement are key to effective crisis response. Governments need to decide how to engage community members in reopening plans and implementation; what, when, and how often information should be shared with affected communities; and with whom and through which channels to communicate.

The evidence on building trust with communities affected by emergencies shows that:

- Leveraging community involvement to build trust will play a vital role in facilitating the reopening process and in shaping public perceptions of the state over the long term.
- Effectively responding to health crises requires localized efforts to work with communities affected by the crisis. For the education sector,

Recommendations

To productively engage communities and build the trust needed to design and implement effective reopening plans, policymakers should:

- Prioritize community engagement early to build trust, shape perceptions of risk, and improve responses to government policy.
- Share clear, credible, and consistent messaging through multiple channels to reach all groups and to match local resources and norms.

engaging teachers and teachers' unions, schoolbased management committees and other parent organizations throughout can increase the relevance of plans and compliance with government interventions as schools reopen.

Communication strategies

There is limited evidence regarding the effectiveness of specific communication strategies to support emergency response. What is known strongly suggests that communication content should be clear and credible, and be disseminated in a manner aligned with local norms. The best communication channels for reaching households will vary considerably across contexts but, wherever possible, multiple channels should be used to reach all groups. The "Signal Code" outlined in the humanitarian and disaster literature argues that not only does the public benefit from consistent information about the crisis and reopening plans, it has the right to it.

The evidence on effective communication strategies following an emergency indicates that:

- Moving quickly to establish regular communication channels and messages focused on facts and key messages can help manage fear during response as well as facilitate school reopening.
- Information is best shared using sources judged credible by communities. In the wake of COVID-19, we have seen numerous ministries of education combat misinformation campaigns. Communities are much more likely to follow guidance from sources that are nationally well known and which they consider credible, although it is important to be aware that source credibility varies among groups and even within countries.
- Communication channels should be selected based on their potential reach and local norms. Several methods have been proposed as channels for communicating response procedures and reopening plans. Household surveys and local norms about information acquisition can be used to determine each method's potential.

Many governments have already strengthened radio, television, and mobile communications during the crisis; these same channels could be used to deliver reopening messages. For example, SMS allows for direct communication to community members at speed, and mass messaging might provide a low-cost method for providing information, encouraging compliance, and monitoring outcomes of school reopening. Several ministries of education are also using social media to communicate with parents about COVID-19, but this approach will not be suitable everywhere. Word-of-mouth via parent groups and locally nominated individuals remains an important communication channel, particularly where literacy and connectivity rates are low.

• Research suggests that combining multiple methods of communication could increase uptake and influence public behaviour as schools reopen. For example, television and SMS messaging can complement one another to strengthen a single strategy. Broadcasting the same information in multiple formats can make messaging more coherent. But be aware: information that is inaccurate or conflicts across modalities may lead to confusion and noncompliance with reopening plans.

2. Targeting Resources Where They Are Most Needed

A strong and equitable reopening and recovery requires the careful use of resources, which relies on broad coordination, effective targeting, and continual use of data to adjust and improve approaches.

Policymakers will want access to evidence supporting their planning and decision making, and to draw on relevant experiences from elsewhere. This brief summarizes the rigorous evidence available regarding the targeting of resources to where the need is greatest and identifies three recommended actions for policymakers.

Summary of Evidence

Coordinating actions and resources

Coordination and resources are critical components of emergency response, but evidence is thin in these areas. If systems are to "build back better" as schools reopen, then resources available for education will need to be maintained or, in some cases, increased. During and after the crisis, resources will be pulled in many directions, both within and outside the sector. Under such exceptional circumstances, available evidence shows that the management of competing priorities—and targeted allocation of resources—will require strategic coordination across sectors and agencies.

The evidence on coordinating actions and resources during an emergency indicates that:

 Strategic coordination and clear communication between sectors and agencies can improve the implementation of school reopening plans. There should be clear channels of communication and responsibilities across line ministries as well as among levels of government

Recommendations

To help ensure that resources are targeted in a manner that supports a strong and equitable reopening of schools, policymakers should:

- Coordinate actions and resources. Under these exceptional circumstances, managing competing priorities requires coordination and exchange across organizations, which can provide incentives that strengthen implementation of reopening plans and improve efficiency.
- Use existing administrative and survey data to identify risk factors and guide the design of social transfer mechanisms. Community inclusion and data privacy should be prioritized at all stages.
- Gather high-frequency data early and continuously throughout the reopening process to support implementation, adaptation, and learning.

(e.g., national, regional, local, and school leaders). Evidence from the grey literature suggests that focal points should be designated for each level of response.

 Collaboration increases exchange and can create incentives that strengthen reopening processes. Evidence from past disaster recovery efforts demonstrates that organizations benefit by pooling knowledge and data, sharing best practices, capitalising on economies of scale, and expanding reach while avoiding duplicating efforts. In the many instances where collaboration across ministries and partners remains weak, collaboration around the reopening of schools creates an opportunity for its strengthening.

• Rapid response guidelines prioritize the use of existing educational resources and infrastructure in the short term over the building of new systems. Innovative solutions building on existing systems, including acceleration programs, can support rapid school reopening within existing resource and infrastructure constraints.

Targeting and inclusion

School reopening strategies should use existing data to target communities with the greatest need. Education administrative data can be combined with information from national household surveys and other readily available sources. These data should be used to plan reopening activities based on underlying risk factors and knowledge of local resources and norms. Evidence from past crises highlights the need to ensure data privacy and protection at every stage.

The evidence on strategies that use administrative and survey data to enhance targeting and inclusion shows that:

 School reopening plans should account for underlying risk factors, including student attendance rates, percentage of economically disadvantaged students, student-teacher ratio, average years of teacher experience, and the presence of vulnerable groups—including girls. Indicators for several of these risk factors exist in annual school censuses and household surveys, which could be used immediately.

- When targeting support to particular groups, evidence from social transfers strongly suggests that careful design and implementation of the mechanism is the key determinant of effectiveness. Any targeting approach will be imperfect, regardless of the inclusion criteria (e.g., geographic or means-based). What matters is the careful use of data from multiple sources, such as to enable targeting at multiple levels (e.g., regional, provincial, district, and school community).
- Failing to include those on the periphery of society in response plans could risk their further marginalization as schools reopen. Inclusive community engagement is critical to disaster response. COVID-19 will not affect all people or communities equally. Several countries are already using data-led strategies to identify out-of-school children. Policy guidance related to postdisaster education planning also highlights how important it is to ensure that communication of risk-based information targets women at all stages.
- Data privacy and protection must remain priorities during crisis and response efforts. Evidence from past crises suggests that the urgency of data collection in an emergency can lead to poor practices. Effectively targeting services to the most vulnerable children and households may require collecting sensitive information, which will heighten the need to prioritize privacy and protection throughout the process.

Monitoring and adapting

Response monitoring used during the crisis, including phone surveys, can also be used to monitor reopening. Evidence from past crises supports community involvement in the monitoring and evaluation process. There is limited evidence specifically related to the monitoring of education systems as they reopen following a crisis, which makes ongoing evaluation an important source of knowledge to strengthen future response.

The evidence on monitoring school reopening to support evaluation and adaptation suggests that:

 Data collected during the reopening phase (from education or other sectors) can be used to adapt implementation approaches and for longer-term planning. Several initiatives have begun to gather data during the COVID-19 crisis, and may also be used to monitor reopening. As the crisis shifts from response to reopening, these data can be used to inform policy responses aimed at mitigating impacts on schooling and may be used to evaluate and adjust approaches.

• Including communities in decisions about what is monitored as schools reopen, and how, could have long-term impacts on school participation and achievement. It is crucial to decide early on what data will be needed to monitor reopening, and how they will be collected and used to monitor progress and, later, to evaluate the process.

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3. Getting Children Back to School

Students, teachers, and households are facing new pressures on their time and resources that will make reenrolment challenging for some families as schools reopen. Governments should implement universal campaigns to encourage enrolment and consider additional measures to support the transition back to school, including cash transfers and school meals targeted to the most vulnerable.

Policymakers will want to access evidence to support their planning and decision making and to draw on relevant experience from elsewhere. This brief summarizes the available rigorous evidence related to getting children back to school and identifies two recommended actions for policymakers based on that body of evidence.

Summary of Evidence

Encouraging reenrolment

Very little rigorous evidence exists on student reenrolment and school recovery after a crisis. This is an area where current monitoring could greatly contribute to future knowledge.

Available evidence suggests that governments can identify and prioritize students who are the most likely to drop out by using existing data on risk factors, such as precrisis attendance rates and relative economic disadvantage. In Sierra Leone, an intervention to provide protective spaces during the Ebola crisis allowed young girls to allocate time away from men, preventing out-of-wedlock pregnancies and enabling them to reenrol in school postcrisis. The program of safe spaces and skills training almost entirely reversed the large (16 percentage point) dropout rates among adolescent girls without access to the program. Other experience from Sierra Leone suggests that flexible approaches

Recommendations

To encourage and support the reenrolment of all students, policymakers should:

- Combine community participation and large-scale direct communication campaigns to parents, and consider increasing attendance options to accommodate all children, including those with highest risk of dropping out.
- Provide financial or in-kind support, such as school feeding, to help families overcome the increased costs of attending school.

may be needed to reenrol students who have new demands on their time.

There is also a large body of evaluating evidence from nonemergency settings that provides insight into how to use information campaigns and community participation to increase enrolment. Much of this evidence remains relevant to reopening and recovery after COVID-19.

Evidence on encouraging reenrolment after a crisis indicates that:

 Community participation is at the heart of disaster recovery and can support reenrolment efforts. Effective strategies include financing parent-teacher associations, working with local political and school management groups, and creating opportunities for community monitoring.

- Large-scale direct communication with students and parents can also increase enrolment and attendance. Proven interventions in this category include sending reminders and nudges via SMS, information campaigns to communicate the benefits of education, and working with role models to share education success stories.
- Administrative approaches to increasing flexibility, such as double-shifting, are common in crisis-affected contexts, but their impacts are largely unknown. Despite its popularity, there is no rigorous evidence on the effectiveness of double-shifting in crisis settings. Evidence from stable low-income countries shows that it can increase access and enrolment-and that it may increase opportunities for formerly out-of-school-children to enrol once the schools reopen. Over the longer term, however, a reduction in contact hours may reduce learning, particularly in the poorest schools. Other promising changes to the school environment include improving school WASH (water, sanitation, and hygiene), which has been shown to increase enrolment and attendance, particularly among girls, although this is not always the case.
- Newly vulnerable children who are not able to return to regular school environments will still need opportunities to enrol and learn. Some children may be at greater risk and danger of infection during this current pandemic, so some families may not be able to send their children back to school. Very little evidence yet exists on the effects of COVID-19 on children with comorbidities, such as preexisting respiratory illness or immune dysfunction. Households with affected children-or in which other family members are at significant risk-may choose to avoid schools even if they reopen. Reenrolment plans should find locally relevant means of providing opportunities to learn for these newly vulnerable students.

Overcoming increased costs of school attendance

Rigorous evidence suggests that financial support to vulnerable households is critical to getting children back to school. Recovery efforts must help families overcome new financial constraints and the opportunity costs of schooling. Strategies could include school-related fee reductions, subsidies, and household cash transfers.

According to data from Liberia's high-frequency phone survey, initiated during the Ebola epidemic, one in four households with children over the age of 12 reported that one month after reopening, their children had not returned to school; and reenrolment rates were lower among girls than boys. Eighty percent of these households cited a lack of money as the primary reason for their child's nonreturn.

Income shocks to poor households may induce parents to take their children out of school and send them to work. When schools were closed during Sierra Leone's Ebola outbreak, many of the approximately 3 million children living in communities affected by the disease carried out petty trade or other forms of work to support the survival of their households. Once withdrawn from school due to parental unemployment or disasters, many children will not subsequently reenrol. While measures should be taken to reduce the need for children to work, it is possible that some students will need to continue working while they attend school, and this will require flexible solutions.

Evidence regarding providing support to households in overcoming the costs of schooling shows that:

 Financial support, including cash transfers, can reduce the financial burden and opportunity costs faced by families sending their children back to school. Intervention findings in noncrisis settings suggest that transfers to poor households in underserved regions offer the highest return, especially where labour market opportunities for children are likely to draw them away from school.

- School meals can encourage reenrolment and attendance. Many governments, including some in collaboration with the World Food Programme, have arranged to continue providing school meals while the schools are closed. The shock associated with the crisis could increase the numbers of those in need of such resources. Offering school meals and basic necessity kits could incentivize and make reenrolment possible for some, particularly the most vulnerable.
- Fee waivers may support reenrolment. Such waivers were used in post-Ebola Sierra Leone. There is no rigorous evidence on how they

influenced reenrolment, but extensive literature supports the removal of fee barriers as a means of increasing enrolment and retention, with some studies showing larger enrolment benefits among students considered to be at risk of withdrawing. Where fees are levied—which is common among secondary schools in many contexts—social transfers have been used to reduce financial constraints and increase enrolment. The removal of other costs, such as for uniforms, have also shown strong positive impacts on school participation in several countries.

4. Making School Environments Safe

Maintaining the health and safety of people and environments will be more important than ever before in the aftermath of the COVID-19 school closures. To make school environments safe, additional health and hygiene measures should be implemented, and schoolbased psychosocial and nutritional support should be extended to students to strengthen their overall health and well-being in the wake of the pandemic.

Policymakers will want to access evidence to support their planning and decision-making and to draw on relevant experience from elsewhere. This brief summarizes the available rigorous evidence related to **making school environments safe** and identifies four recommended actions for policymakers based on that body of evidence.

Summary of Evidence

Health and safety measures

Priorities for education-focused efforts after the coronavirus pandemic should include ensuring that school infrastructure and facilities are safe, that rooms are clean and disease-free, and that staff are prepared to prevent the spread of disease in the event of a future outbreak.

Evidence on the impacts of improving school-based health and safety measures remains thin; it should be strengthened as schools around the world reopen. Existing evidence points to the importance of making sure that schools are equipped with adequate health and hygiene infrastructure and monitoring capabilities, that students and staff practice regular handwashing, that schools have access to sufficient hand sanitizer, and that students and staff are continuously screened for temperature and symptoms.

Recommendations

To provide safe school environments following a pandemic, policymakers should:

- Pair school-based hygiene promotion with the distribution of waterless hand sanitizer and/or soap (where handwashing stations are already available).
- Consider school-based screening for fever and cough, which may reduce risk and improve confidence, but which does not by itself offer a reliable solution.
- Train and support teachers and other school staff to offer school-based psychosocial support to returning students.
- Prepare for a spike in the number of students with malnutrition and other unmet basic needs.

Evidence on good school health and safety after a crisis shows that:

 Distribution of alcohol-based hand sanitizer is likely to offer an effective, scalable solution for hand hygiene for the prevention of COVID-19 transmission, especially where running water is limited. A substantial body of evidence, largely from wealthy countries, shows that young children in particular are more likely to use waterless hand sanitizer consistently, when available, than they are to use soap and water. Programs that supply hand sanitizer for use in classrooms and day care centers have recorded substantial reductions in diarrheal and respiratory illnesses. Alcohol-based hand sanitizer is highly effective against COVID-19 and recommended for use by the WHO. Compared with major WASH (water, sanitation, and hygiene) infrastructure upgrades, it is easy to distribute and deploy.

- Despite a mixed track record on water and sanitation interventions in schools, access to hygiene supplies and handwashing promotion can help prevent the transmission of common infectious agents. Globally, school-based handwashing programs have been inconsistent in preventing common childhood conditions, such as diarrhea, respiratory infections, and soil-transmitted helminths. WASH interventions appear to be more effective when they are well implemented, when they effectively target the sources of disease transmission, and when they combine supply-side measures with behaviourchange approaches.
- School-based temperature screening has been a part of containment for previous outbreaks, but its effectiveness against COVID-19 **remains uncertain.** Following the Ebola-related closures of 2014-2015, school reopening protocols included daily temperature checks at the school gate, but it is unclear whether these measures reduced transmission. During the SARS epidemic, Singapore issued a thermometer to every student and mandated twice-daily temperature checks. This helped restore confidence among parents and students but did not lead to any identification of cases. School systems could consider screening children and school staff for temperature and cough-the two most common COVID-19 symptoms, but such an approach would probably have low sensitivity (potentially missing infected children) and low specificity (potentially excluding noninfected children)

due to the prevalence of mild or asymptomatic coronavirus in children and the high baseline prevalence of cough and fever among young children. Symptomatic screenings should complement rather than substitute for hygiene and distancing measures.

Child protection and well-being

Crises and prolonged school closures can negatively impact the well-being of children and adolescents. Evidence suggests that armed conflict and environmental disasters have multiple negative impacts on children and their families, including the potential to increase children's engagement in dangerous forms of work.

Evidence from the Ebola crisis suggests that women and girls were at a disproportionate risk of sexual exploitation and early marriage as a result of prolonged school closures. Household shocks resulting from the pandemic may also lead to higher rates of child malnutrition and difficulty meeting basic needs.

The evidence on child protection and well-being after a crisis shows that:

• Psychosocial and emotional support are often needed in schools following crises. Evidence from studies of conflict, natural disasters, public health crises, and other humanitarian crises show that a child's psychosocial well-being can be negatively impacted by shocks. A rapid systematic review of the impact of social isolation suggests that children are likely to experience high rates of depression and anxiety during social isolation and for several years after it ends. Evidence from past humanitarian crises and situations of displacement finds that teachers trained in programs that prioritize learning and social-emotional well-being can help improve learning outcomes and student well-being following a crisis. The broader education workforce, including nurses and counsellors, can support children as they return to schools.

- Differential support may be needed according to gender and age. Following the Ebola epidemic, evidence suggests that adolescent girls faced disproportionate risks and abuse while the schools were closed. Interventions focused on the empowerment and well-being of girls may be needed as schools reopen.
- Schools should prepare for a spike in students with malnutrition. During the Ebola epidemic, 76 percent of children in Sierra Leone reported

not having enough to eat; in the aftermath, acute malnutrition spiked significantly. The World Food Programme warns that the number of people at risk of acute hunger may double by the end of the year due to the coronavirus crisis. Surveys suggest that many families are already eating less and may quickly exhaust their household resources. Quick and safe restoration of school feeding programs is essential to help stem and reverse nutritional losses.

5. Recovering Learning Loss

To address learning loss, policymakers should consider targeted programs for accelerated recovery and use low-cost coaching and communication methods to support teachers and engage parents.

Policymakers will want to access evidence to support their planning and decision making and to draw on relevant experience from elsewhere. This brief summarizes the available rigorous evidence related to recovering learning loss and identifies three recommended actions for policymakers based on that body of evidence.

Summary of Evidence

Accelerated learning

Decades of research shows that school closures are associated with learning loss, with more pronounced effects among low-income families. Accelerated learning programs are common interventions to support catch-up efforts; they help students cover core academic material in less time. Evidence suggests that accelerated learning interventions focused on the basics can have positive impacts on learning in developing countries, particularly among those furthest behind.

As policymakers take steps to reverse learning loss after the current crisis, they should keep in sight the social and emotional needs of children. Social isolation and loneliness are harmful to the mental health of children. In addition to accelerated learning, researchers are urging governments to allow time for play and socialization as children return to schools.

The evidence on recovering learning loss after a crisis shows that:

• Simplifying the planned curriculum to accelerate learning can support recovery when learning loss is likely to have occurred for entire

Recommendations

To recover learning loss following a pandemic, policymakers should:

- Engage students in accelerated learning interventions to reverse crisis-related learning loss and strengthen future learning trends.
- Engage teachers in training and coaching so they can help students catch up, and ensure that school environments are safe and protected.
- Engage parents by capitalizing on their current involvement in remote learning to improve future outcomes.

cohorts. While not rigorously evaluated, Sierra Leone's experience with simplifying and accelerating a planned curriculum to cover two academic years in one following the Ebola pandemic suggests that accelerated learning can help get students back on track. Variations of this approach have shown positive results in other countries as well. The idea is not to do more with less time but rather facilitate quality catch-up with a simplified curriculum of select core components to cover thoroughly in the time available.

 Targeted, intensive programs focused on basic literacy and numeracy can support accelerated learning, particularly for those furthest behind. Following prolonged closures, students will return to school with varying levels of learning loss, possibly due to previous skill levels, differential access to distance learning, or varying home support during the closures. A robust body of evidence indicates that instruction focused on foundational literacy and numeracy skills targeted at students' individual levels, even for one or two hours per day, can substantially improve learning. This kind of targeting can be based on a rapid performance assessment as students return.

- Teacher-led learning camps and remedial tutoring programs can support learning acceleration. Evidence suggests that learning camps prior to and between school terms can support student learning. Such camps provide focused opportunities to accelerate the mastery of basic skills. Carefully planned programs using research-based instruction can be highly effective if students consistently attend. Studies find positive impacts of high-quality remedial tutoring for marginalized students who have missed prolonged periods of schooling due to conflict or displacement.
- Where connectivity allows, remote- and technology-based learning strategies can also support remedial and accelerated learning. Many countries around the world have made impressive progress in developing distance learning platforms during school closures. When schools reopen, these platforms could complement regular instruction to support learning recovery. For example, evidence suggests that high-quality adaptive-technology-aided after-school instruction programs can accelerate learning growth, particularly for those furthest behind. However, while such remedial strategies can be useful, they are not all the same. Simply providing hardware-such as computers or tablets-without carefully designed software is unlikely to improve learning outcomes.

Supporting teachers and parents

Evidence from past crises suggests that teachers need new skills and capacities as they support student transitions back to school, ensure safe school environments, and provide remedial learning activities. Not only does providing support to teachers offer the potential of improved learning, such efforts have also been linked to the improved well-being of students. While there are many promising practices to strengthen teacher development over the long-term, we offer evidence on activities to support teachers and classrooms in the immediate-term after schools reopen.

The pandemic has also forced the increased involvement of parents around the world in their children's education while schools are out of session. This provides a unique opportunity for encouraging parents to remain engaged over the longer term even as the schools reopen.

The evidence on supporting teachers and parents after a crisis suggests that:

- Regular coaching can support teachers as they adapt to new demands. As schools reopen, teachers will face the daunting task of supporting students in covering lost ground. They will be operating in a modified environment and will likely be delivering an irregular syllabus. All of this requires new skills and capacities. Formal retraining will take time and substantial resources. Evidence suggests that on-the-job and virtual teacher coaching can help strengthen teaching practices quickly and effectively.
- Leveraging the entire education workforce not only the teachers—may support learning. Evidence suggests that engaging other education professionals, volunteers, and peer-to-peer support as tutors, mentors, and additional help for teachers can strengthen learning outcomes as well as support vulnerable students, including girls, in returning to and staying in school.

• There are several low-tech and low-cost options to maintain high rates of parental engagement in the schooling of children. Direct interventions with parents via SMS or other channels has been shown to increase and sustain their involvement at home and at school, resulting in large learning gains for their children. Past interventions include informing parents of their children's learning levels, progress, and attendance. Where feasible, personalized messages may be more effective in strengthening parental engagement than generic messages.

Technical Appendices

Evidence Appendix 1. Engaging Communities in School Reopening Plans

Trust, risk, and community participation

Without trust in government, support for reforms is difficult to mobilize, particularly when short-term sacrifices are involved. Low levels of trust and widespread concern about misinformation have been associated with a decreased likelihood of following Ebola guidelines in the Democratic Republic of Congo. In Sierra Leone, trust and community involvement led to an increase in community monitoring and responsiveness to government policies, as well as perceived quality and use of services.

Perceived risk, more than actual risk, determines a population's reaction to a crisis. Any mismatch between risk perception and actual hazard can reduce compliance with government plans during recovery, including returning to school. Information that is conflicting or that underestimates the severity of continued risk may lead to confusion or noncompliance with recovery plans. When information is provided about a crisis and its related risks, risk perception among parents and school staff can quickly shift.

Recovery efforts will also be impacted by changes in risk perception during the response. Before COVID-19, SARS was the leading example of the widespread use of nonmedical public health measures to contain an infectious disease outbreak (e.g., social distancing). The use of such measures impacted the public perception of risk—on one hand heightening the perception of serious risk of infection and on the other providing reassurance that actions were being taken to reduce that risk. Highly visible public health activities, such as temperature readings for children and wearing masks, supported response and recovery in China during SARS, and evidence from qualitative work suggests that similar activities also supported recovery in Sierra Leone after Ebola.

Evidence from the Ebola epidemic suggests that a primary reliance on big data absent substantial community involvement in case reporting and recovery planning slowed containment and the subsequent recovery.

Strategies that leverage local social networks are better able to draw on community information, tools, and assistance to support faster recovery; and feedback mechanisms allow affected communities to express their opinions about the distribution of resources, providing data to inform choices and increase accountability.

Communication strategies

There is limited evaluation evidence on the impact of specific communication methods during a crisis, which likely varies across contexts. Source credibility is critical for effective response and recovery in an era of mass communication and misinformation.

Internet connectivity is weak in many areas, but social media and SMS can open new avenues for improving strategic communications across various stages of a crisis, including the promotion of the public's common responsibility and cooperation. Mobile and radio connectivity is more widespread and could serve as a practical way of providing information to vulnerable groups when face-to-face measures are not feasible. Telephone information campaigns have been effective in relieving anxiety and improving knowledge about a crisis among vulnerable adults. The gray literature strongly underlines the central role of local communities in the dissemination of information. The choice of communication channels should ultimately be determined by local resources and communications norms. Utilizing national household surveys to determine household access to various forms of communication technology is a good place to start.

Combining multiple forms of media likely supports communication efforts. For example, a media campaign paired with a telephone hotline positively impacted beliefs and behaviours following Hurricane Katrina in the United States. In Singapore, an effective integrated communication campaign during the SARS crisis included television, press conferences, advertisement, booklets, posters, and a public hotline for anyone seeking information and for providing feedback. Mixed-media campaigns have also been used to encourage school enrolment programs and health care compliance in nonemergency settings.

Evidence Appendix 2. Targeting Resources Where They Are Most Needed

Coordinating actions and resources

While this is a challenging area in which to generate rigorous evidence, the disaster response literature finds evidence that strategic coordination and clear communication among sectors and agencies improves implementation of response and recovery plans. A study examining disaster response and recovery following a major earthquake in Haiti found that collaboration increases exchange and can create incentives that strengthen recovery. The findings suggest that organizations benefit from pooling knowledge and data and from sharing best practices; leveraging comparative advantage and economies of scale; and expanding reach while avoiding duplication of efforts.

Targeting and inclusion

Disasters do not impact all groups in the same way. The poorest, women, those with disabilities, and otherwise disadvantaged groups often experience disproportionate negative impacts during and in the aftermath of disasters. A study examining school attendance following Hurricane Katrina in the United States found that schools with a higher proportion of economically disadvantaged students had more difficulty recovering following the crisis. A study on disaster preparedness and recovery in the Philippines found that poorer and less educated households were less prepared for disasters and faced greater challenges during recovery.

Substantial evidence from social transfers, including those targeting children, suggests that targeting is key to intervention effectiveness, a lesson relevant to crisis recovery as well. The effectiveness of targeting is shaped by program design features, including group eligibility, location selection, and relative allocation of benefits. A quantitative study comparing targeting mechanisms in social transfer programs in sub-Saharan Africa found community targeting to be an effective tool for targeting those who would most benefit from the program.

While it is critical to target the most vulnerable during and after crises, evidence from the literature also cautions that crises may increase the number of poor and can lead to new vulnerable groups. A study in Bangladesh tracking child malnutrition following a severe three-month flood found evidence of a "crossover" phenomenon in which the nutritional status of targeted children improved while malnutrition increased among some who were not initially targeted. This suggests that it is important to assess changes in vulnerability resulting from a crisis and that recovery may require broader targeting than an initial emergency response.

Monitoring and adapting

It is likely that traditional data collection methods school census and large-scale face-to-face surveys—are disrupted by the crisis. Using mobile phones to conduct short and frequent surveys can produce high-quality data more quickly—and more cheaply on a per survey basis—than traditional methods. Mobile phone surveys were found to be valuable tools for crisis monitoring during the Ebola epidemic in Liberia and Sierra Leone. Liberia's Institute of Statistics monitored the impacts of Ebola through a monthly phone survey, providing data on schooling and broader economic impacts that might affect recovery.

Evidence from Uganda suggests that creating opportunities for community engagement, allowing participants to influence how and what they will monitor and manage, delivers strong impacts on achievement and absenteeism.

Evidence Appendix 3. Getting Children Back to School

Encouraging reenrolment

Carefully designed approaches to strengthen schoolcommunity linkages have had positive and substantial impacts on attendance. Leveraging parent associations and motivating participation by involving parents in the management of school grants has improved enrolment and retention in poor communities. Engaging with local political structures may reinforce existing school-based management arrangements. Another promising example of local-level engagement is community monitoring of service levels and provider responsibilities, which improves health service utilization, quality of service delivery, and outcomes.

Examples of effective enrolment and attendance strengthening include improving perceptions among students of the benefits of an education by providing them with information on its returns, or having an appropriate role model describe the benefits of an education, such as a person sharing his or her own success story with a household. Other effective approaches include providing information to parents on their children's absenteeism—which may also positively impact siblings—and using high-frequency SMS to communicate with parents in real time regarding student attendance.

Overcoming increased costs of school attendance

Conditional cash transfer programs in which school attendance is the condition has been shown to increase educational achievements and mitigate the negative impacts of household shocks. However, increases in rates of educational attendance may occur without an equivalent decline in the incidence of child labor and mainly at the expense of child leisure. In some emergency recovery phases, access to credit has been shown to diminish the immediate financial burden on households, reducing the need for child labor.

Evidence Appendix 4. Making School Environments Safe

Health and safety measures

There is no rigorous evidence that we know of on the impact of WASH interventions in schools following a crisis. Some evidence suggests that outbreaks may lead to the long-term adoption of healthy habits, such as handwashing, even after the immediate crisis has passed. With appropriate recovery planning, it may be possible to evaluate the effectiveness of the various health and safety measures that are being used during the current crisis.

In nonemergency settings, WASH interventions in schools show a mixed track record of implementing preventative measures including handwashing supplies or efforts to change handwashing behaviour—the component of WASH most relevant for COVID-19 transmission.

- In Laos, where primary schools were upgraded with running water, handwashing stations, and other upgrades, and following a behaviourchange campaign, there were no significant recorded improvements in rates of diarrhea, respiratory infection, conjunctivitis, or soil-transmitted helminthiasis (STH) infections.
- In Kenya, a multifaceted school-based intervention—which included water treatment, water containers for hand washing and drinking water, latrine construction, and hygiene promotion—helped reduce reinfection with one helminth among girls but had no impact on three other STH infections. The intervention substantially reduced diarrhea among children without access to drinking water from other improved sources but did not reduce it among those who could access an improved water supply within one kilometer, which may suggest that clean drinking water rather than handwashing drove the observed gains. The intervention also led to

significantly decreased rates of diarrhea and visits to health clinics among the younger siblings of students.

- A multicountry program across primary schools in Cambodia, Indonesia, and Laos, which included daily handwashing with soap as a group activity in addition to a deworming treatment, did not reduce parasitic infections or the prevalence of underweight, although this may be attributable to an unexpectedly low parasitic prevalence at baseline.
- In rural China, the promotion of handwashing, the provision of soap, and the training of peer hygiene monitors reduced illness-related school absences by more than 50 percent.
- In Cairo, children required to wash their hands twice a day (a behaviour reinforced with health messages) saw major reductions in influenza-like illness (40 percent), laboratory-confirmed influenza (50 percent), diarrhea (30 percent), and conjunctivitis (67 percent).
- In Mali, a multifaceted school WASH intervention was associated with decreased rates of diarrhea and lower respiratory infections. Greater adherence to the handwashing component was associated with decreased rates of school absence.
- In Bihar, a school-based behaviour change program to encourage handwashing with soap produced only modest increases (4.4 percentage points) in the prevalence of handwashing with soap.
- In Peru, school-based handwashing promotion improved handwashing behaviour but had no impact on evaluated health outcomes.

A substantial body of evidence suggests that alcohol-based waterless hand sanitizer is a highly effective substitute for handwashing, particularly for younger children who may find it difficult to adhere to proper handwashing techniques. Although such hand sanitizers are not as effective as soap and water under perfect-use conditions, particularly against some bacterial agents, the World Health Organization and the Centers for Disease Control and Prevention recommend their use against COVID-19, and studies have confirmed their high levels of efficacy.

- In Nairobi's primary schools, the availability of waterless hand sanitizer was associated with reduced prevalence of rhinorrhea (but not with statistically significant declines in gastrointestinal or respiratory illnesses). Children were more likely to clean their hands after using the toilet if hand sanitizer was available (compared with soap and water).
- Substantial evidence from wealthier countries shows young children with access to waterless hand sanitizer are more likely to clean their hands—and have substantially lower risk of diarrheal and respiratory disease and related absenteeism—than children with access to soap and water alone.

The evidence base for school-based management of outbreaks also remains thin. Use of thermometer-based screening coupled with teacher training on the management of suspected cases may allow teachers to detect fever in children upon school entry and exclude ill children from entry. Schools could also consider prohibiting entry to a child with a cough. Evidence on the utility of a symptomatic screening-and-exclusion approach is limited and complicated by the relatively high prevalence (and potential transmissibility) of asymptomatic (or presymptomatic) COVID-19 infection in children, as well as widespread endemicity of other respiratory and febrile diseases.

- Following the Ebola-related closures of 2014–2015, school reopening protocols in Sierra Leone, Guinea, and Liberia included daily temperature checks at the school gate plus soap/chlorine distribution and installation of handwashing stations. As of August 2015, UNICEF reported zero known instances of a teacher or student becoming infected with Ebola at a school. It is unclear whether transmission would have occurred in the absence of these measures.
- During the SARS epidemic, Singapore issued thermometers to every student and mandated twice-daily temperature screening for all students; any child with an elevated temperature was excluded from school. Students with consistently high temperatures were referred to a health center for further examination. Temperature screening did not result in any case identification but reportedly did help reassure students and parents of school safety.
- . Symptomatic screening for COVID-19 would likely focus on observed temperatures and presence of a cough. However, this is likely to offer a crude screening tool at best, excluding many children without coronavirus infection while missing others who are asymptomatic. Most coronavirus infections in children are mild, and many are asymptomatic-that is, they would not be detected based on symptomatic screening criteria. We do not yet know the extent of asymptomatic transmission in children, but presymptomatic transmission in adults can be extensive. On the flipside, mild coronavirus symptoms may be indistinguishable from common childhood ailments. In children under five, Demographic and Health Surveys across 182 lowand middle-income countries (conducted between 1986 and 2012) suggest a 38.4 percent average prevalence of either cough or fever within the two-week period prior to the survey

date and an 11.7 percent average prevalence of both symptoms over the same period. These figures are not directly applicable to school-going cohorts (e.g., older children)—and are likely out of date—but nonetheless, they point to the difficulty of distinguishing mild COVID-19 symptoms from other common endemic infections.

Child protection and well-being

Evidence from studies of conflict, natural disasters, public health, and other humanitarian crises show that shocks can negatively impact psychosocial well-being of children. School-based interventions and schoolbased referral models are encouraged to help students recover. Evidence from humanitarian crises shows that supporting teachers during reconstruction can improve the psychosocial well-being of students. Interventions such as the International Rescue Committee's "Healing Classrooms" have had positive impacts on children's social emotional well-being following a crisis across contexts. Following the Katrina hurricane, cognitive behavioural therapy and self-reporting helped reduce posttraumatic effects. Using available resources within schools has shown positive effects. The broader education workforce, including school nurses and counselors, can also support the well-being of children returning to school. In Japan, for example, support from teachers, nurses, and counselors improved the long-term mental health of students.

As with other forms of crises and postcrises support, targeting is important. A systematic review of 24 studies on mental health and psychosocial interventions in conflict-affected areas highlights the predominance of school-based interventions to support students returning to school following a crisis. Despite overall positive effects, the evidence suggests that the benefits of such school-based interventions tend to be limited to subgroups of children. In some contexts, girls may require additional support following a crisis. High-quality girls empowerment and livelihood programs have been shown to have strong positive effects on multiple measures of girls' empowerment, including persistence in school; school-to-work transitions; a reduction in early marriage and risky behaviours; improved networks, aspirations for the future; and in some cases, parental beliefs about education for girls, particularly in unstable contexts. Synthesis results suggest that high-quality girls' empowerment programs can: (1) be implemented in environments prone to instability; (2) can shield girls' from the worst impacts of a crisis during a country-wide shock; and (3) are cost-effective.

Acute malnutrition can spike during a crisis. During the Ebola crisis, 76 percent of children in Sierra Leone reported not having enough food to eat; after the crisis, rates of severe acute malnutrition rose significantly.

Initial signs suggest COVID-19 lockdowns have already had a severe effect on food security. The World Food Programme estimates that the number of people at risk of acute hunger may double by end-2020 as a result of the crisis. BRAC surveys across eight African and Asian countries show that many households have less than one week of food stocked (up to 90 percent of households in Sierra Leone); in Liberia, 84 percent of households report that food consumption has dropped "a lot" since the start of the crisis. In Bangladesh, 14 percent of respondents report having no food in their homes, and almost half of families have less than three days of food. Prompt and complete restoration of school feeding programs is crucial to blunt nutritional losses and prevent further declines.

Evidence Appendix 5. Recovering Learning Loss

Accelerated learning

Targeted acceleration programs can support catch-up and learning recovery, particularly for vulnerable students. The Complementary Basic Education Programme in Ghana, which provided literacy and numeracy training to out-of-school children by volunteers in local communities, had positive impacts on the students' transitions to and success in public schools. The "Speed School" initiative in Ethiopia—an intensive program targeting basic literacy and numeracy among students who have dropped out—supported accelerated learning growth for students returning to school.

Supporting teachers and parents

Target instruction and focus on basic skills. Many schools teach students grade-level material that is far above their actual learning level, leaving them behind. Ensuring students are taught at their actual level rather than according to a curriculum or syllabus too advanced for them has already been shown to be one of the most cost-effective methods for improving learning.

This evidence will be even more relevant after the pandemic. After weeks and months of being at home, students will likely be even further behind grade-level syllabi, and the learning levels among students are likely to be even more heterogeneous than before. This will necessitate simple learning diagnostics to quickly identify student levels and then target instruction in a way that enables them to get "back on track." Examples of diagnostics include ASER-like tools, USAID and RTI's EGRA, the World Bank SDI, or UNICEF's MICS learning module. In addition, a dedicated focus on the basics, such as numeracy and literacy, can rebuild the foundation for mastery across all subjects.

In India, this type of joint approach—targeting instruction and focusing on the basics—more than doubled the percentage of students in grades 3–5 who could read a paragraph or story in just 50 days of 1–2 hours of daily instruction. A tracking intervention in Kenya also found substantial benefits for lower-achieving students through better targeted instruction. Moreover, while hardware-focused technology solutions have yielded disappointing results for improved learning, software-focused solutions for targeting and adapting instruction to a student's level have been successful.

Teacher coaching. As schools reopen, teachers face the daunting task of teaching with an out-of-date syllabus and operating in a new and ever-changing environment in which they have yet to receive full training. A major challenge is how to best support teachers in adapting to the new normal.

To this end, while there is mixed evidence on the effectiveness of traditional desk-based teacher trainings, on-the-job teacher coaching programs have been shown to improve learning in meta-analyses and were a key ingredient in a recent high-profile national scale-up of Tusome, a successful education reform in Kenya. On-the-job coaching was found to be twice as effective as centralized training in South Africa, and a follow-up study using virtual coaching found it to be just as effective as onsite coaching.

As schools reopen, policymakers should consider how to integrate coaching support into daily teaching practice. This could take the form of networks within a school, regional administrators, or video coaching in a low-tech environment—such as shared WhatsApp coaching groups. Effective coaching can enable realtime adaptation—needed now more than ever.

Engage parents with "low-tech" approaches. The pandemic is a unique shock that has called parents to increase their involvement in their children's education while schools are closed. This provides an opportunity to engage parents over the longer term, after schools reopen. While in many high-income countries, the internet is widely available, less than 40 percent of households in low and lower-middle income countries have internet access. However, almost 80 percent do

have access to a mobile phone—a low-tech avenue for engaging parents through SMS and telephone calls.

Direct intervention with parents via SMS has been found to support an increase in engagement with their children in the home and at school. This engagement has resulted in learning gains during early childhood. Research has also shown that many parents are misinformed about their children's learning level, and that using low-cost SMS technology to communicate more accurate information can help revise their beliefs. This enables parents to demand accountability and provide at-home complements to activities in the classroom, which can then improve the learning outcomes of their children, as examples in the United States and Chile illustrate. Similar interventions designed to improve the information available to parents have also been shown to help increase accountability and performance within schools. In Niger, a randomized trial showed that calling different stakeholders within villages to monitor teacher attendance and performance increased student learning by 0.12–0.15 standard deviations. Biannual report cards in Pakistan substantially impacted student learning, allowed parents to make more informed choices, and provided better accountability to the schooling market.

To this end, engaging parents now—while they are acting as short-term educational providers— and leveraging this to strengthen their ongoing involvement in instruction, motivation, and accountability, can serve to complement the school system and classroom based learning as schools reopen, with the potential for far-reaching benefits for student learning.