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CHAPTER 5

National contexts of teaching and learning during COVID-19

HIGHLIGHTS

Senior government officials in the six MILO countries were asked, via the MILO Systems Questions, to indicate how the COVID-19 pandemic affected their education systems. The responses revealed both commonalities and differences in how the pandemic affected education systems:

- In Burkina Faso, schools were fully closed for 9 weeks and partially closed for a further 4 weeks.
- Burundi was the only MILO country where schools were not closed as a consequence of the pandemic.
- Schools in Côte d'Ivoire were fully closed for seven weeks and partially closed for a further six weeks.
- Schools were fully closed in Kenya for 28 weeks, and were subsequently partially closed for a further 10 weeks.
- In Senegal, schools closed fully or partially for 13 and 9 weeks, respectively.
- Schools in Zambia fully or partially closed for 15 and 13 weeks, respectively.

All five countries that experienced school closures had national plans or policies to provide directions for teaching and learning, as well as health and wellbeing, in response to the disruption.

- Remote schooling options were provided, using a mix of technologies such as television, radio and the internet.

- When schooling resumed, modified health management practices were often initiated and included social distancing; stricter water, sanitation and hygiene (WASH) protocols; and mask wearing.
- Countries varied in the extent to which they reported supporting disadvantaged students, with support most commonly given to students with special needs (Table 5.2).
- Countries also included a range of organisational changes, most commonly relating to health and wellbeing at home and school (Table 2.3).
- Most countries prioritised a wide range of responses to address the COVID-19 disruption, although Côte d'Ivoire more narrowly focused their support, including by providing remote instruction and engaging with families (Table 5.4).
- Countries offered a variety of services to support staff wellbeing; peer support and counselling were the most common areas of support provided (Table 5.5).

During the pandemic, education officials in the six MILO countries most commonly communicated with the families of students via radio (Table 5.6). All five countries where schools closed undertook outreach or support measures to encourage students to return to school (Table 5.7).

As a result of the pandemic, the MILO countries introduced health and safety measures during learning assessments and made various changes to their learning assessments and monitoring processes (Table 5.8); four out of the six countries collected regular data on student achievement and student attendance (Table 5.9).

INTRODUCTION

This chapter describes the impacts of COVID-19 on the six MILO countries and the national education system policies developed to respond to the pandemic. These include the plans and policies to support students and staff, and changes to the

organisation of schooling. The communication and outreach strategies that countries used during the pandemic are also presented, including the mode of communication to families and students and the support measures developed to encourage students to return to school. This chapter also examines countries' assessment and monitoring practices, including the changes they implemented to monitor the impact of the pandemic on students and teachers.

The information reported is predominantly drawn from the MILO System Questionnaire, where each country completed questions that related to a specified COVID-19 disruption period, as identified by each country, on the basis of when there was the most disruption to education, as shown in Table 5.1.

TABLE 5.1 COVID-19 disruption periods for MILO countries

Country	Defined COVID-19 disruption period
Burkina Faso	14 March – 31 May 2020
Burundi	January – 28 February 2021
Côte d'Ivoire	20 March – mid-May
Kenya	March 2020 – January 2021
Senegal	Mid-March – late-May 2020
Zambia	Early March – 20 September 2020

The System Questionnaire was completed by one senior government official from each MILO country. The respondents were asked to gather input, where necessary, from other officials such as those working across ministries of education and examinations centres. Many questions referred to the 'target grade', which was the grade of the students who undertook the MILO assessment.

Data from the System Questionnaire are supplemented by other relevant data and research on the system-level context underpinning learning outcomes in each MILO country. The National Education Responses to COVID-19 School Closures Survey created by UNESCO, UNICEF, the World

Bank and the OECD is a key supplementary data source (hereafter referred to as the School Closures Survey). This survey identified responses to school closures stemming from COVID-19 to inform future responses and prepare for school reopening (UIS et al., 2020a).

IMPACT OF COVID-19 ON EDUCATIONAL SYSTEMS

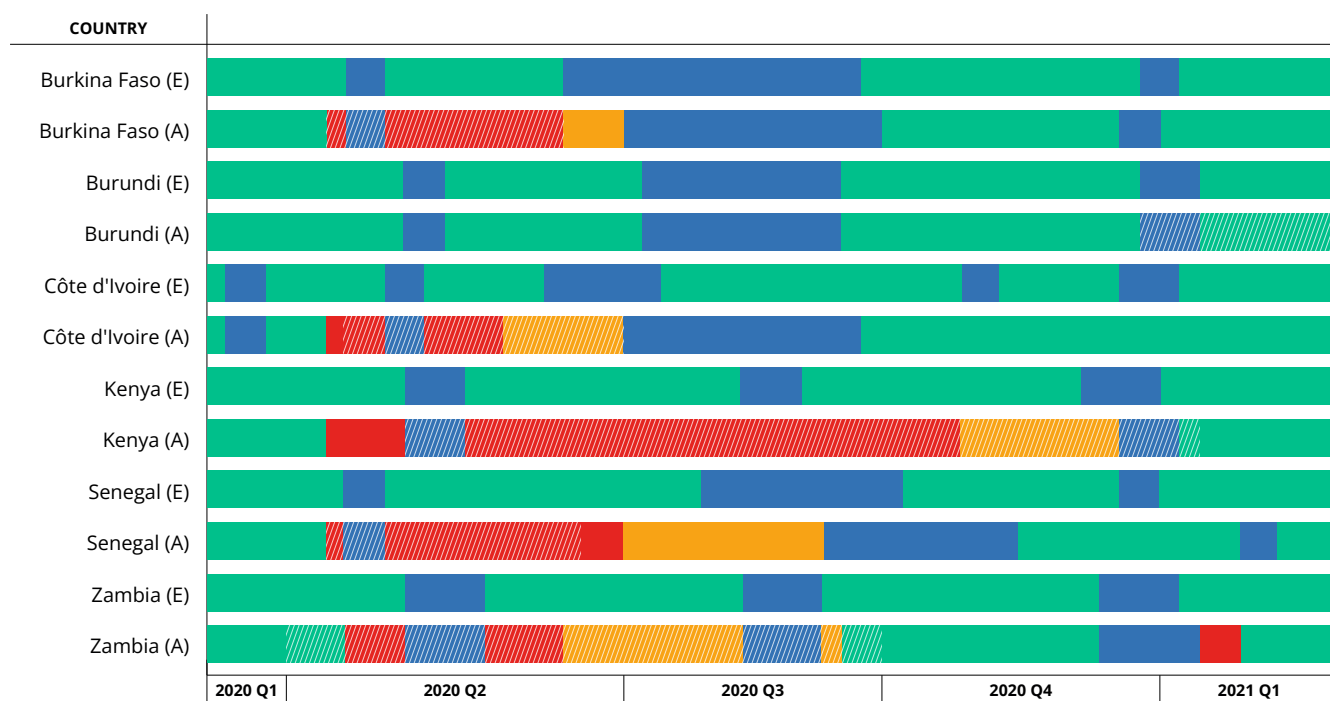
Senior government officials were asked to indicate how the pandemic affected school closures within their country. Figure 5.1 provides an overview of the main impact on education systems (the closure and partial closure of schools between January 2020 and March 2021). These closures are compared to those scheduled for expected academic breaks. In all MILO countries except Burundi, academic breaks were extended and shifted in the school calendar.

Academic breaks are distinct from school closures by the absence of remote teaching.

Schools were most likely to be closed in response to the pandemic in the second quarter of 2020. In the third quarter, academic breaks played a larger role, where they were generally shifted or extended, except for in Zambia and Burundi. By the beginning of the fourth quarter of 2020, schools were open in four of the six countries, with only Kenya and Senegal still experiencing school closures. Zambia experienced a further school closure period in early 2021.

Each country's expected and actual school closures, partial opening, remote teaching and how schooling was modified when students did attend, is described below, and summarised in Figure 5.1. There were insufficient data about modified schooling for Burkina Faso and Côte d'Ivoire.

FIGURE 5.1 Expected and actual school closure periods of MILO countries



E: Expected school closure periods

A: Actual school closure periods

■ Fully open

■ Partially open

■ Closed due to COVID-19

■ Academic break

▨ Defined MILO disruption period

Sources: Actual school closures: (UIS, 2021), Burkina Faso (E): (Ministères de L'Education, 2019), Côte d'Ivoire (E): (Fortes, 2019), Kenya (E): (Ministry of Education, Kenya, 2019), Senegal (E): (Baldé, 2018), Zambia (E): (Education In Zambia, 2019)



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Burkina Faso

SCHOOL CLOSURES

All schools in Burkina Faso were closed from March 2020 for 9 weeks. Schools then partially opened, with all schooling resuming after 14 weeks (UNESCO, 2020a). The school closures affected more than 20,000 educational establishments, and disrupted the education of more than 4.7 million learners.

REMOTE EDUCATION

Remote teaching was undertaken during school closures to ensure continuity of learning. Mass media learning content, including for television, radio and online (UIS et al., 2020b), were developed and made available to students in primary and secondary school. Learners in examination classes, which included the target grade for MILO, were given priority access to learning materials; access was later extended to other learners. Learning materials were translated into national languages to facilitate access by a range of students, including those in rural areas.

Burundi

SCHOOL CLOSURES

Schools in Burundi remained open throughout the pandemic. However, due to cases of COVID-19 being reported, there was some disruption to education caused by increased teacher and student absenteeism.

MODIFIED SCHOOLING

The Ministry of Public Health advised educators and learners in schools to implement social distancing, wear masks and follow handwashing protocols. Although handwashing protocols were implemented, social distancing and mask wearing were deemed impractical, largely due to resource constraints. For example, up to 100 students could be in a classroom (Development and Cooperation, 2021).

Côte d'Ivoire

SCHOOL CLOSURES

Schools in Côte d'Ivoire were closed for two months from mid-March to mid-May 2020. The closures affected those in preschool, primary, general and technical secondary, and vocational training.

REMOTE EDUCATION

In response to school closures, the Ministry of National Education, Technical Education and Vocational Training initiated a distance education program entitled 'My Home School' to allow the completion of the 2019–20 school year. Television, radio and online technologies were all incorporated into the remote education response.

Kenya

SCHOOL CLOSURES

All schools were closed in Kenya for six months, beginning in late March 2020. Schools were partially opened in September 2020, allowing learners in Grades 4, 8 and 12 to return to school (in the System Questionnaire, these classes were described as Grade 4, Class 8 and Form 4). Schooling for all grades resumed in January 2021. The school calendar was rescheduled, with terms being delayed. Grades 4, 8 and 12 completed Terms 2 and 3 of the 2020 academic calendar in October to December 2020 and January to March 2021, respectively. The remaining school grades completed Terms 2 and 3 of 2020 during January to March 2021, and March to July 2021. The delay of the terms, combined with shorter holiday periods in 2020 and 2021, were designed to allow the normal academic calendar to resume in 2023.

REMOTE EDUCATION

During school closures, remote teaching was undertaken to ensure the continuity of learning. The Kenyan Government provided support related to equipment, internet connectivity and training of teachers, especially for teachers of students from low socioeconomic households. Educational content and instruction were also delivered through television and radio (UIS et al., 2020a).

MODIFIED SCHOOLING

Upon the resumption of schooling, new health and safety protocols were implemented. These measures included: wearing masks, social distancing (additional desks were provided), handwashing using soap and running water, hand sanitising, checking body temperatures, and regular fumigation. Teachers aged 58 years and above were encouraged to work from home.

Senegal

SCHOOL CLOSURES

Schools in Senegal were closed in mid-March 2020. Schooling resumed for examination classes in all schools in late June 2020 to enable learners to undertake exams in September 2020. To facilitate social distancing, other grades did not resume schooling until early to mid-November 2020.

REMOTE EDUCATION

While schools were closed, students were expected to engage in remote learning through the 'Learning at home' initiative. This program helped maintain students' connection to school and prepared them for returning to school. Television and radio technologies were used for remote learning (UIS et al., 2020a).

MODIFIED SCHOOLING

When schooling resumed, adapted health and safety protocols were mandated. This included greater teacher support for students made possible via smaller class sizes.

Zambia

SCHOOL CLOSURES

All schools closed in Zambia during March 2020. Examination classes (Grades 7, 9 and 12) in both primary and secondary returned to school in June 2020. All other grades (including the MILO target grade) returned to school in late September; this period encompassed two academic breaks. The UNESCO School Closures Survey indicated that schools in Zambia were fully closed for 15 weeks and partially closed for 13 weeks. The UNESCO survey had three iterations of data collection, when it was found that schools in Zambia closed again during the second quarter 2021 after the MILO System Questionnaire had been returned (UIS et al., 2020c). The school calendar was re-scheduled; with terms being delayed. Term 2 was conducted from June to August 2020, and Term 3 from September to December 2020.

REMOTE EDUCATION

To facilitate remote learning during the school closures, online 'E-learning' and 'Smart Revision' platforms were introduced. The E-learning platform contained educational resources, such as e-books and links for specialised services and the Smart Revision platform contained past examination papers with model answers. In June 2020, an Educational Television channel was launched to provide lessons across all grades. The Ministry of General Education also developed self-study materials and distributed them to all schools.

MODIFIED SCHOOLING

When schooling resumed, different grades were scheduled to attend on alternate days. Examinations for end-of-primary school (Grade 7), junior secondary (Grade 9) and O-levels (Grade 12), were delayed by one month to enable students adequate time to prepare.

SEVERITY OF COVID-19

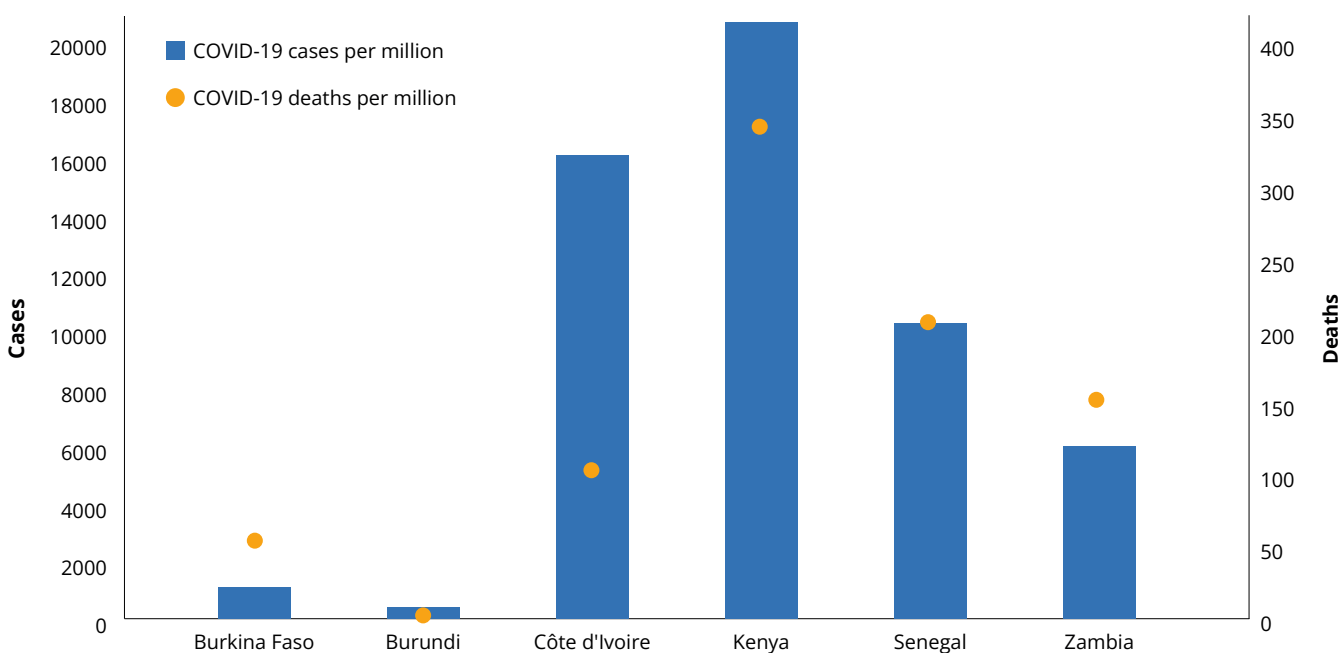
The extent to which education was disrupted in each country can be interpreted within the context of the severity and impact of COVID-19 in each country. Figure 5.2 shows the number of reported COVID cases and deaths due to COVID.

Globally, there were on average over 13,000 cases per million people by July 2021, compared to 2,865 cases per million people for Zambia, the MILO country with the largest proportion of cases. However, it is likely that cases have been

under-reported in many less developed countries, including the MILO countries, due to a lack of testing (Ritchie et al., 2020). There was likely inconsistency in testing rates between MILO countries.

The three countries that reported higher numbers of cases and deaths (Zambia, Kenya and Senegal) had longer periods of school closures compared to countries that reported fewer cases and deaths. Côte d'Ivoire, Burkina Faso and Burundi reported lower numbers of cases and deaths and had shorter periods of school closure (none in the case of Burundi). There might not be direct causation between COVID-19 cases and school closures. Rather, the countries that undertook more testing, and therefore found more cases, might be more likely to close schools. In all MILO countries, there was an upsurge in cases and deaths in the second half of 2021. In the cases of Burundi, Senegal and Zambia, cases peaked after the MILO assessments were conducted (Oxford Martin School, 2021).

FIGURE 5.2 COVID-19 total confirmed cases and deaths per million people (until 31 July 2021)



Source: (Oxford Martin School, 2021)

POLICIES OF EDUCATIONAL SYSTEMS IN RESPONSE TO COVID-19

The five MLO countries that experienced school closures due to the pandemic had national policies and plans (hereafter referred to as ‘policy approaches’) approaches to direct teaching and learning at schools during the COVID-19 disruption. Burkina Faso and Zambia also had policy approaches at the state/provincial level. These approaches related to:

- providing extra support to groups of disadvantaged students
- changing school organisation
- minimising academic disruption
- offering support services to staff.

Policy approaches for disadvantaged students

School shutdowns disproportionately affect the most disadvantaged students (Di Pietro et al., 2020; Wagner & Warren, 2020; UNESCO, 2020b). The MLO countries varied in the extent to which their policy approaches supported specific disadvantaged groups of students, as seen in Table 5.2. Countries most commonly emphasised support for students from socioeconomically disadvantaged homes and students with special needs (special needs were determined by the official criteria of each country). Burkina Faso was the only country to provide support for students who speak minority languages. There were similar findings in the School Closures Survey. Low income countries most commonly considered students with a disability when introducing measures for students at risk of exclusion from remote learning (UIS et al., 2020b).

TABLE 5.2 Emphasis on support given to groups of students in national plans or policies

	Burkina Faso	Burundi	Côte d'Ivoire	Kenya	Senegal	Zambia
Girls	●	N/A	○	●	○	○
Students whose heritage language is different from language of instruction	●	N/A	○	○	○	○
Students with special needs (i.e. according to official criteria)	●	N/A	○	●	●	○
Students from socioeconomically disadvantaged homes	●	N/A	○	●	●	○
Students from socioeconomically affluent homes	●	N/A	○	●	○	○
Students with an immigrant background (i.e. where both parents/guardians were born in another country)	●	N/A	○	●	○	○
Students from an ethnic minority	●	N/A	○	●	○	○
Student from refugee or internally displaced backgrounds	●	N/A	○	●	○	○
All students in general	●	N/A	○	●	●	●

● Yes; ○ No; N/A There was an absence of general plans or policies to provide directions and guidance for teaching and learning at schools during the COVID-19 disruption

Policy approaches for school organisational changes

The five MILO countries that closed their schools had national policy approaches to make organisational changes to schooling. As seen in Table 5.3, these changes included initiatives for health and wellbeing at school and home, remote learning, and remedial learning. These changes were consistent with the School Closures Survey where the majority of low income countries indicated that they provided remote learning and would use remedial programmes as a catch-up strategy (UIS et al., 2020b).

Policy approaches for minimising academic disruption

The MILO countries developed policy approaches to minimise academic disruptions caused by COVID-19. These included supporting the use of information communication technology (ICT), engaging families, and adjusting teaching and learning. Promoting health and safety in schools was universally prioritised. Four of the five countries either implicitly or explicitly prioritised all aspects, as presented in Table 5.4. In the School Closure Survey, distance instruction was the most common form of support provided to teachers in low income countries (UIS et al., 2020b).

The development context of each country dictates the priorities and organisational changes in their education system policy approach. As a measure of this context, Figure 5.3 presents data from the Human Development Index (HDI) and the ICT Development Index (IDI) for the MILO countries. The HDI was developed by the United Nations Development Programme as an indicator of a country's development in terms of human capabilities. It is a composite measure that provides a value between 0 and 1 of average achievement in three key dimensions: a long and healthy life, being knowledgeable, and having a decent standard of living. The IDI is a composite

The MILO countries developed policy approaches to minimise academic disruptions caused by COVID-19. These included supporting the use of information communication technology (ICT), engaging families, and adjusting teaching and learning.

measure that combines 11 indicators related to access to, use of and skills in ICT. The data for both the IDI and HDI are for the most year that data is available for all six MILO countries, 2017, in the case of IDI and 2019, for HDI.

As can be seen in Figure 5.3, the MILO countries are less developed than the world average. Of all the MILO countries that provided data about school organisational changes in national plans or policies, Burkina Faso had the lowest HDI. It is consistent with this lower level of development that organisational changes tended to be implicit policy approaches, rather than explicit, as with the more developed MILO countries. Explicit approaches largely refer to specific policies being detailed, rather than merely be encapsulated within broader objectives. Based on literature showing the link between development and government capacity (Collier, 2008; Sachs et al., 2004), it could be inferred that a lower level of development results in lower capacity to produce organisational changes, and therefore, such changes are not prescribed in planning and policy documents. Countries with the lowest levels of development generally need relatively greater development assistance to achieve policy outcomes.

TABLE 5.3 Emphasis of national policy approaches for supporting school organisational changes

	Burkina Faso	Burundi	Côte d'Ivoire	Kenya	Senegal	Zambia
Varying school starting times for different groups of students (e.g. by class or grade level)	●	N/A	●	○	●	●
Varying break times between classes for different groups of students (e.g. by class or grade level)	●	N/A	○	●	●	●
Ensuring school access to running water	●	N/A	●	●	●	●
Increasing hygiene facilities (soap/sanitiser)	●	N/A	●	●	●	●
Increasing cleaning on school premises	●	N/A	●	●	●	●
Social distancing between students	●	N/A	●	●	●	●
Social distancing between adults	●	N/A	●	●	●	●
Smaller class sizes	●	N/A	●	○	●	●
Increasing number of teaching staff	○	N/A	○	●	●	○
Continue remote learning option for students	●	N/A	●	○	●	○
Supplementing face-to-face teaching with remote instruction	●	N/A	●	○	●	○
Extending the academic year	●	N/A	●	●	●	○
Prioritising particular content within the curriculum	●	N/A	●	○	●	○
Need to check-in with students relating to health and wellbeing	●	N/A	●	●	●	○
Provision of health and wellbeing support to students in need (such as food or medical attention)	●	N/A	●	●	●	○
Home visits by trained staff (e.g. teachers, health workers)	●	N/A	○	○	○	○
Informing parents/guardians on how to talk about COVID-19 with their children	●	N/A	●	●	○	○
Delivering educational content to students on television	●	N/A	●	○	●	●
Delivering educational content to students on radio	●	N/A	●	○	●	●

● The measure is explicitly stated in the plans and policies

○ The need for this measure is implicit in the plans and policies without being explicitly stated

○ The measure is not mentioned in the plans and policies

N/A No plans or policies were developed to provide directions and guidance for teaching and learning at schools during the COVID-19 disruption

Policy approaches for staff support

In emergencies, the support made available to teachers and staff is an important part of maintaining learning. (le Brocq et al., 2017; Inter-agency Network for Education in Emergencies [INEE], 2010; Ubit & Bartholomaeus, 2018). The support services the MILO countries offered staff during the disruption, as listed in national plans

and policies, are presented in Table 5.5. Countries commonly offered formal support networks, peer support, and training to support the social and emotional health of others. Burkina Faso and Zambia also offered mental health services or online wellbeing programs (Burkina Faso and Zambia), with the School Closure Survey showing comparable results for low income countries (UIS et al., 2020b).

TABLE 5.4 Priorities of policy approaches to minimise academic disruption

	Burkina Faso	Burundi	Côte d'Ivoire	Kenya	Senegal	Zambia
Professional development for teachers' use of ICT	●	N/A	○	●	●	○
Development of ICT-related competencies in students	●	N/A	○	○	○	○
Support for providing remote student instruction using digital technologies	○	N/A	●	●	●	○
Support for providing remote student instruction using print material	○	N/A	○	●	●	●
Use of ICT to improve communication with parents/guardians	●	N/A	○	●	●	○
Support of students that were falling behind	●	N/A	○	○	●	●
Changes to grade progression	●	N/A	○	○	●	○
Collaboration among teaching staff	○	N/A	○	●	●	●
Guidance for schools about how to support parents/guardians	●	N/A	○	●	●	●
Infection control measures (e.g. mandated wearing of masks)	●	N/A	●	●	●	●
Support for safe working environments and/or healthy work practices	●	N/A	●	●	●	●
Methods to engage with families to support their child's learning	●	N/A	○	○	●	●
Methods to engage with families to support their child's wellbeing	●	N/A	●	○	●	●

● The aspect is explicitly stated in the plans and policies

○ The need for this aspect is implicit in the plans and policies without being explicitly stated

○ This aspect is not mentioned in the plans and policies

N/A No plans or policies were developed to provide directions and guidance for teaching and learning at schools during the COVID-19 disruption

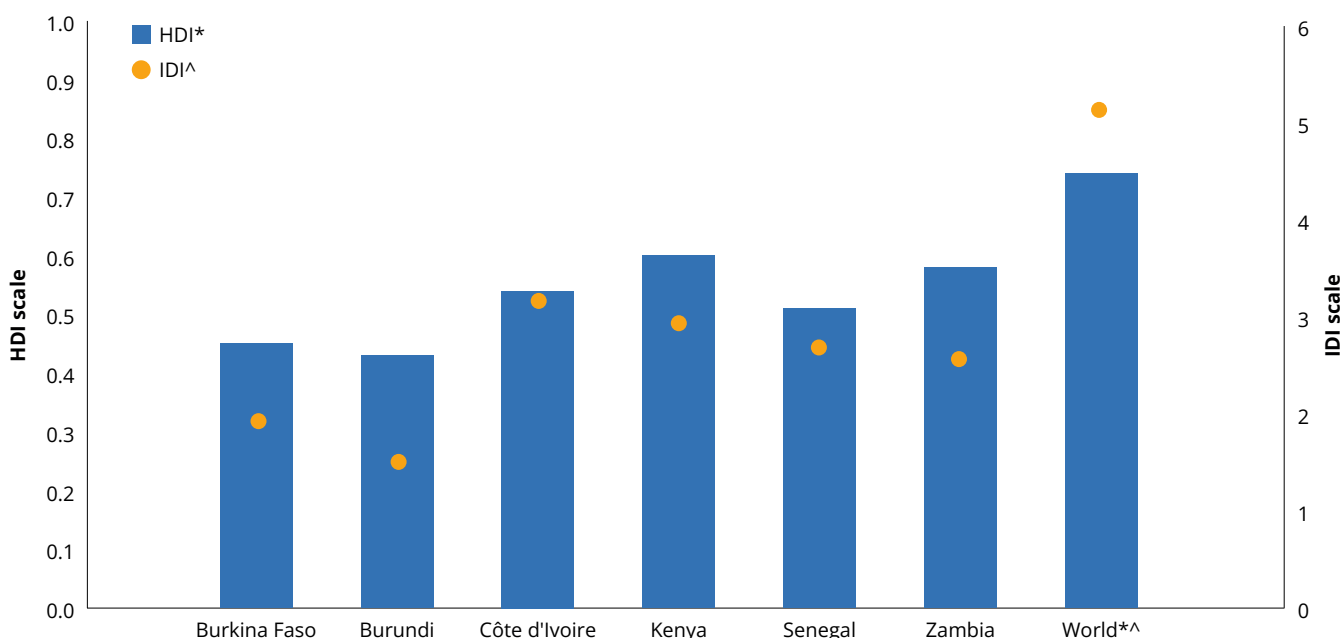
NATIONAL COMMUNICATION AND OUTREACH DURING THE PANDEMIC

Communication with families is an important aspect of maintaining learning when normal education has been disrupted (Codreanu, 2019; Reimers & Schleicher, 2020). Table 5.6 shows that MILO countries implemented various modes of communication. Radio was the most common mode of communication used by MILO countries to communicate with the families of students. Television and public notices were also used by all MILO countries, though the outreach may not have been universal. Social media was widely used, most commonly to target some students. In Burundi (where schools remained open), students were informed of the expected school behaviours during the pandemic.

There is a risk that when schools reopen after a disruption that some students will not return to school (Wagner & Warren, 2020). The MILO countries undertook a range of outreach and support measures to encourage students' return to school, as seen in Table 5.7. Countries commonly endeavoured to ensure the health and safety of the school environment by providing resources that maintained hygiene and sanitation.

Some countries gave extra attention to supporting disadvantaged students. In Senegal, a special monitoring program was established that focused on vulnerable students. In Zambia, a project was implemented to ensure that girls returned to school.

FIGURE 5.3 Human development index (2019) and ICT Development Index (2017) for the MILO countries



Source: (International Telecommunications Union [ITU], 2017; United Nations Development Programme [UNDP], 2021)

TABLE 5.5 National policy approaches for supporting teachers and staff during the disruption

	Burkina Faso	Burundi	Côte d'Ivoire	Kenya	Senegal	Zambia
Formal support networks such as a counselling service	●	N/A	●	○	●	●
Peer support system	●	N/A	●	●	○	●
Additional support for teachers who are primary carers and have children at home	○	N/A	○	○	○	●
Professional associations	○	N/A	○	○	●	●
Mental health services	○	N/A	○	○	○	●
Access to physical activity resources	○	N/A	○	●	●	●
Access to nutritional information and support	○	N/A	○	○	●	●
Online wellbeing management programs and resources	●	N/A	○	○	○	●
Training in the support of social and emotional health of others	●	N/A	○	●	●	●

● Yes; ○ No; N/A No plans or policies were developed to provide directions and guidance for teaching and learning at schools during the COVID-19 disruption

TABLE 5.6 Modes of communication with students' families during the pandemic

	Burkina Faso	Burundi	Côte d'Ivoire	Kenya	Senegal	Zambia
Letters	○	○	●	○	○	○
Public notices or newspaper advertisements	●	●	○	●	●	●
Radio	●	●	●	●	●	●
Television	●	○	●	●	●	○
Email	○	○	○	○	○	○
SMS	○	○	○	○	○	●
Social media (e.g. WhatsApp, Facebook)	○	○	○	○	●	●

● Yes, for all students; ○ Yes, for some students; ○ No

ASSESSMENT AND MONITORING AS A RESULT OF THE COVID-19 PANDEMIC

Assessment is an essential element of modern education systems, as it enables data to be collected about learning progress to inform teaching (Belisle et al., 2016; Masters, 2017). The MILO countries recognised this and made various changes to assessments to enable learning progress to continue to be monitored, as seen in Table 5.8. All of the countries introduced additional health and safety measures for students undertaking assessments. Most of the countries rescheduled assessments and adjusted their content. Burkina Faso and Côte d'Ivoire cancelled assessments

“Assessment is an essential element of modern education systems, as it enables data to be collected about learning progress to inform teaching (Belisle et al., 2016; Masters, 2017).”

and public examinations and implemented an alternative approach for high-stakes assessment. In the case of Côte d'Ivoire, the regular end of school exam was replaced by continuous assessment for the passage of students to college.

TABLE 5.7 Support measures initiated to encourage the return to school

	Burkina Faso	Burundi	Côte d'Ivoire	Kenya	Senegal	Zambia
Community engagement to encourage return to school	●	N/A	●	○	●	○
Provision of financial incentives (such as cash/food/transport) or waived fees (such as tuition or uniform fees)	○	N/A	○	○	○	○
School-based mechanisms to track those not returning to school	○	N/A	○	●	●	○
Revision of policies related to the ways in which students can access schooling	●	N/A	○	○	●	○
Provision of resources that maintain hygiene and sanitation to ensure health and safety	●	N/A	●	●	●	○
Social media	○	N/A	●	○	●	●

(Vulnerable students refer to students most at risk of not returning to school. Some of the reasons for this include: geographical isolation, gender biases, disability or low family income.)

● Yes, for all students; ○ Yes, for some students; ○ No **N/A** There was an absence of general plans or policies to provide directions and guidance for teaching and learning at schools during the COVID-19 disruption

The MILO countries collected data to monitor the impact of the pandemic, as seen in Table 5.9. The most commonly collected data related to student achievement and attendance. Kenya also collected data about teachers' emotional health

and Burundi collected data about students' physical health. None of the six countries indicated that they collected data about students' emotional health or on teachers' physical health, at the national level.

TABLE 5.8 Changes made to national assessments in response to the COVID-19 pandemic

	Burkina Faso	Burundi	Côte d'Ivoire	Kenya	Senegal	Zambia
Rescheduled planned assessments	●	○	●	●	●	●
Adjusted the content of the assessments (e.g. subjects covered or number of questions)	●	○	●	●	●	○
Adjusted the mode of administration (e.g. computer-based or online-based)	○	○	○	○	○	○
Introduced additional health and safety measures (e.g., extra space between desks for distancing students)	●	●	●	●	●	●
Introduced alternative assessment of learning (e.g. appraisal of student learning portfolio or formative assessment)	○	●	○	○	○	○
Cancelled assessments and used an alternative approach for high-stakes decision making (e.g. calculated grades)	●	○	●	○	○	○

● Yes; ○ No

TABLE 5.9 Data collected to monitor the impact of the COVID-19 pandemic on students and teachers

	Burkina Faso	Burundi	Côte d'Ivoire	Kenya	Senegal	Zambia
Student achievement	●	○	○	●	●	●
Student attendance	●	○	○	●	●	●
Students' emotional health	○	○	○	○	○	○
Teachers' emotional health	○	○	○	●	○	○
Students' physical health	○	●	○	○	○	○
Teachers' physical health	○	○	○	○	○	○

● Yes; ○ No

Endnotes

- 1 The proportion of children and young learners ... at the end of primary ... achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex (United Nations, 2015).
- 2 In 2016 for Zambia
- 3 Contextual data from the historical population for Zambia was not available in a format suitable for direct comparisons of populations. Some contextual data was not available from the Kenyan historical assessment.
- 4 The GPF advisory group on alignment was a working group comprised of psychometricians and subject matter experts who contributed to the development of the Global Proficiency Framework in 2020. The group was convened to formulate a set of alignment criteria to allow assessments to be compared to the GPF in order to determine their suitability for evaluating and reporting against SDG 4.1.1. The alignment criteria are outlined in detail in: USAID, UIS, UK Aid et al. (2020) *Policy Linking Toolkit for Measuring Global Learning Outcomes – Linking assessments to the Global Proficiency Framework*.
- 5 From SDG 4.1.1 Review Panel: March 2021.
- 6 These items were reproduced with permission from CONFEMEN.
- 7 For the purposes of AMPL, this item was classified as “Retrieve information” rather than “Decoding” as consistent with the GPF for reading (USAID et al, 2020a) which lists matching a given word to an illustration as an example of retrieving information.
- 8 The four French-speaking countries were Burkina Faso, Burundi, Côte D'Ivoire and Senegal.
- 9 These items are used with permission from CONFEMEN.
- 10 Zambia's historical assessment was conducted in 2016. All other countries' historical assessments were conducted in 2019.
- 11 Historical results are not reported for Kenya since the 2019 assessment of English in Kenya did not contain a sufficient number of reading comprehension item to align with the reading constructs within the GPF.
- 12 In the MILO project, students were the primary sampled unit. All results from the School Questionnaire are reported using student weights that are representative of the population. Therefore all results from school principals need to be interpreted in numbers of students.
- 13 There is no consensus among researchers and practitioners on which are the best indicators to operationalise SES. Typical children SES indicators are parents' occupation and education level, household income and home possessions. For a review of SES indicators used in educational research and other disciplines such as health, economics and sociology see Osses et al. (forthcoming).
- 14 Results for Kenya have been excluded based on data validation issues
- 15 The population chosen by countries to report against varied from Grade 5 to Grade 7.
- 16 A wealth index for Kenyan students was computed based on common items from the historical assessment and the AMPL. Comparisons for boys over time revealed higher scores on the wealth index in the 2021 population in comparison to the historical population.
- 17 For further information on different learning approaches and the benefits, considerations and enabling conditions, see for example Dabrowski et al. (2020).
- 18 For further recommendations relating to education in emergencies, see the Policy Monitoring tool developed for building resilient education systems (Tarricone et al., 2021).
- 19 Magnitude of item by gender interaction estimates from a facet model. See PISA 2006 Technical Report (OECD, 2009a).
- 20 'Not reached' items were defined as all consecutive missing values at the end of the test, except the first missing value of the missing series which was coded as 'embedded missing' i.e. coded the same as other items that were presented to the student but which did not receive a response. Omitting the 'not reached' items from the item calibration ensures the item difficulties not to be over-estimated.
- 21 The psychometric properties of the reading items administered in Burundi was unexpectedly inconsistent with those of the other countries. In particular, the response patterns in nearly all of the reading items was consistent with high rates of guessing and resulted in very low discrimination. It was therefore decided to exclude Burundi from the international reading item calibration. Burundi student reading proficiency estimations were subsequently based on the international calibration.
- 22 Expected a-posteriori/plausible value (EAP/PV) reliability (Adams, 2005).
- 23 A two-dimensional model with Quadrature estimation with 40 nodes was used.
- 24 So-called weighted likelihood estimates (WLEs) were used as ability estimates in this case (Warm, 1989).
- 25 Conceptual background and application of macros with examples are described in the PISA Data Analysis Manual SPSS®, 2nd edn (OECD, 2009b).