

## Promising practices for equitable remote learning Emerging lessons from COVID-19 education responses in 127 countries

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### KEY FINDINGS AND RELATED RECOMMENDATIONS

- **Given the digital divide, use multiple delivery channels for remote learning.** Of 127 countries reporting, 68 per cent use some combination of digital and non-digital approaches in their education responses to school closures (TV, radio and take-home packages).
- **Strengthen support to the teachers, parents and caregivers delivering remote learning.** Access to content is only the first step in remote learning. Countries are engaging and supporting caregivers to not only support learning at home, but also to provide children with psychosocial support and encourage their safe use of technology.
- **Gather feedback and improve monitoring of reach and quality.** Several countries are using various simple tools (SMS, U-Report, messaging apps) to gather quick feedback from parents and caregivers to improve remote learning. While some countries can monitor the use of digital platforms, understanding the take-up and effectiveness of non-digital channels that can reach more vulnerable children remains a challenge and requires innovative solutions.

### CONTEXT

The COVID-19 pandemic has had an unprecedented impact on societies globally. To help contain the spread of the disease, schools around the world have closed, affecting 1.6 billion learners – approximately 91 per cent of the world's enrolled students.<sup>1</sup> Governments and education stakeholders have responded swiftly to continue children's learning, using various delivery channels including digital tools, TV/radio-based teaching and take-home packages for parent or caregiver-guided education. However, the massive scale of school closures caused by COVID-19 has laid bare the uneven distribution of the technology needed to facilitate remote learning. It has also highlighted the lack of preparedness and low resilience of systems to support teachers, facilitators and parents/caregivers in the successful and safe use of technology for learning.

Using data on access to technology from household surveys (MICS and DHS) and information on national education responses to school closures gathered from UNICEF education staff in over 120 countries, this brief explores **potential promising practices for equitable remote learning.**

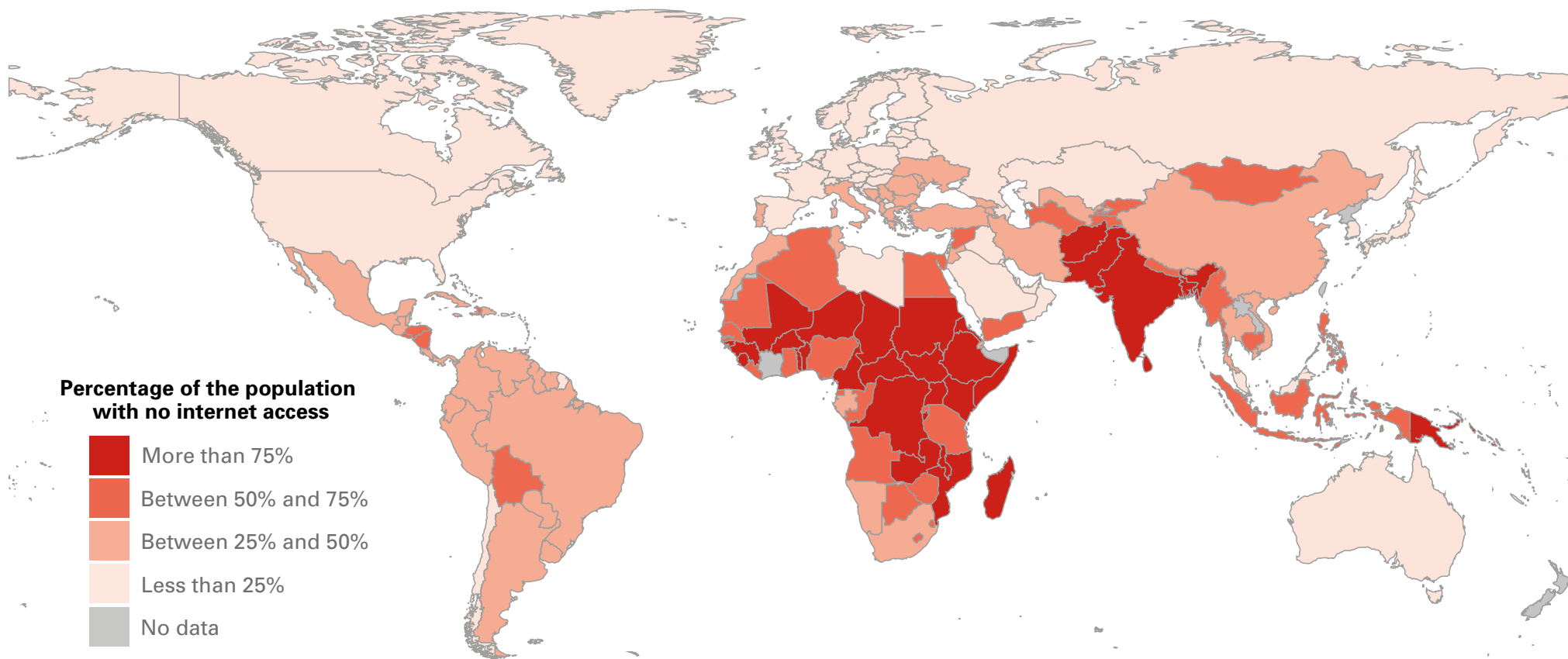
<sup>1</sup> Estimated percentage of students affected by COVID-19: <https://en.unesco.org/covid19/educationresponse> (as of 24 April 2020).

## ACCESS TO TECHNOLOGIES FOR REMOTE LEARNING

Household access to different technologies varies widely both between and within countries. While internet use is widespread in everyday life and work

for many in high income countries, this is not the case in most low- and middle-income countries. In 71 countries (out of 183 with data), less than half the population has access to the internet (see Figure 1).

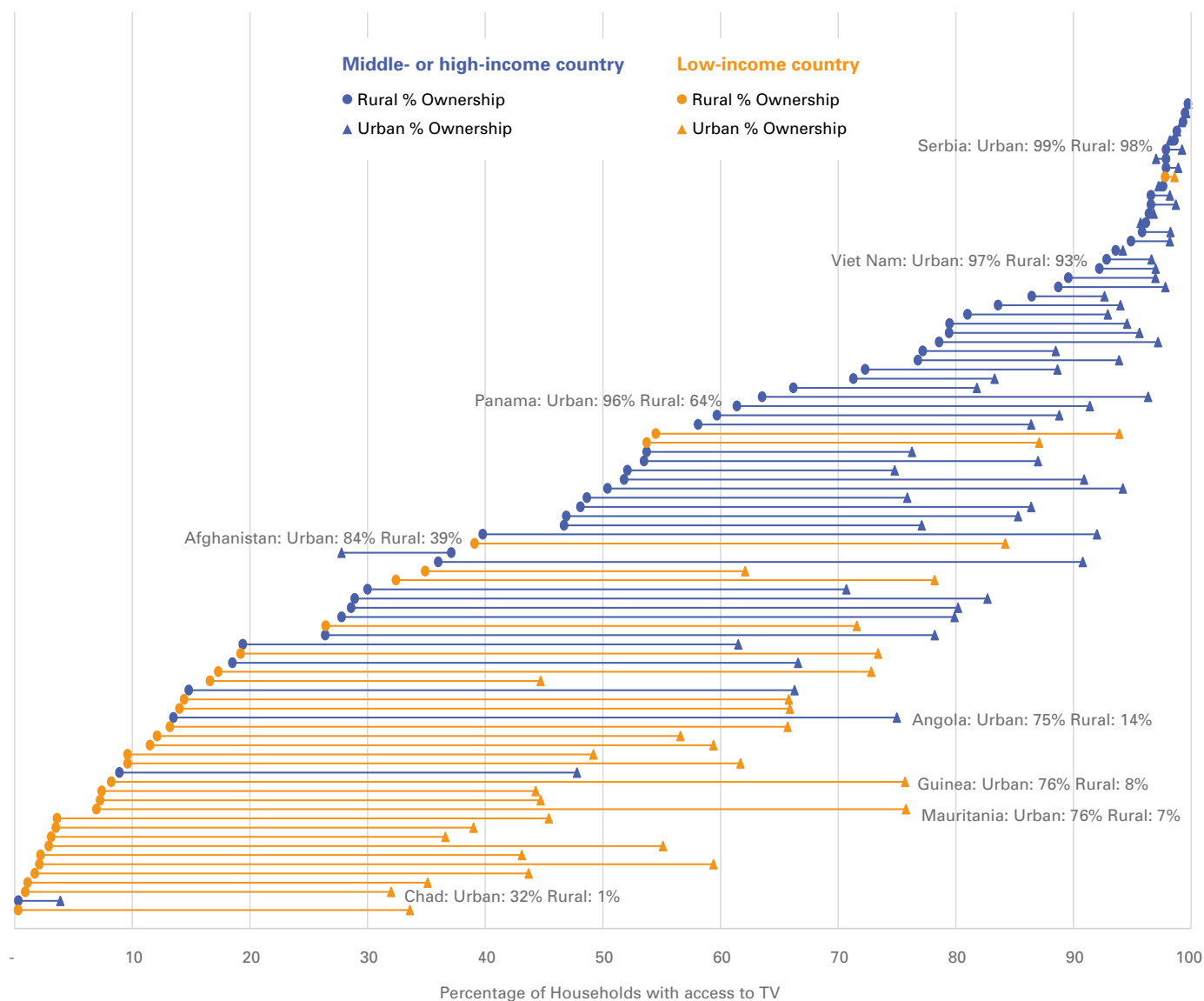
**Figure 1: The Digital Divide: Percentage of population with no internet access**



In addition to the large inequities in access to the internet, TV and radio access varies considerably both across and within countries. Figure 2 shows the rates of TV ownership between rural and urban households

for 88 countries around the world, using the latest nationally representative household survey data available from DHS and MICS.

**Figure 2: The urban-rural gap in TV ownership, by country**

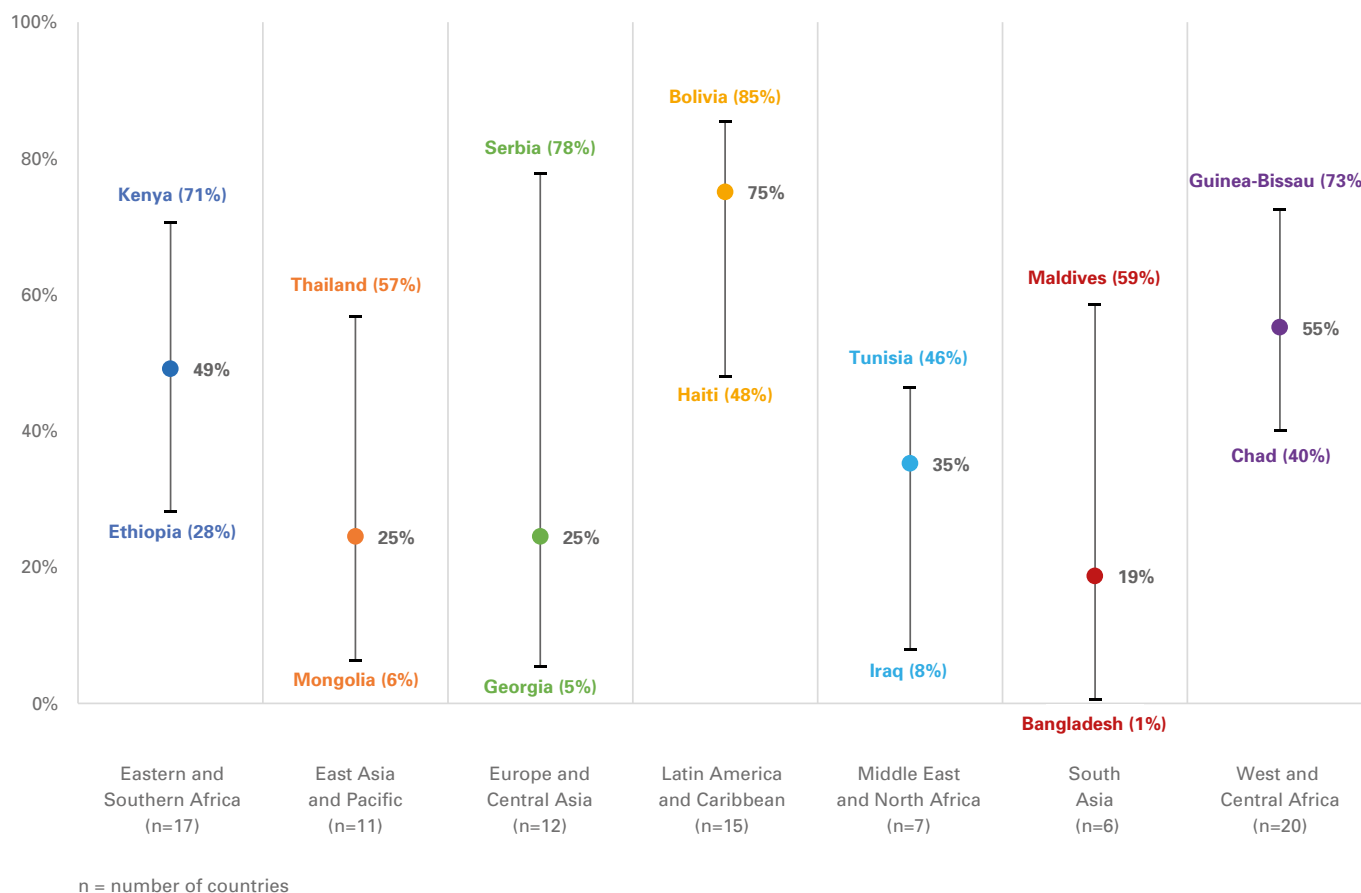


Source: latest nationally representative household survey data from the Demographic Health Survey (DHS) and the Multiple Indicator Cluster Survey (MICS) – 88 countries.

In 40 out of the 88 countries with data, TV ownership rates among urban households were more than double that of rural households with the largest disparities appearing in sub-Saharan Africa. While rates of radio ownership between rural and urban households are more level across countries, the rates of radio ownership vary significantly (see Figure 3). For instance, nine countries in our sample have radio ownership rates

of less than 10 per cent (Bangladesh, Georgia, Armenia, Mongolia, Pakistan, Kazakhstan, Iraq, India and Jordan) while many countries in Latin America have radio ownership rates exceeding 75 per cent (Panama, Colombia, El Salvador, Honduras, Paraguay, Nicaragua, Peru and Bolivia). This suggests that radio may be a particularly useful delivery channel for engaging households in Latin America.

**Figure 3: Household ownership of radios across countries**  
Minimum, median and maximum across countries in a region



Source: latest nationally representative household survey data from the Demographic Health Survey (DHS) and the Multiple Indicator Cluster Survey (MICS) – 88 countries.

Great inequities also exist across socio-economic status. Each of these technologies, from digital to tv and radio, requires electricity. On average, in the 28 countries with data<sup>2</sup>, only 65 per cent of households from the poorest quintile have electricity, compared to 98 per cent of households from the wealthiest quintile. In seven countries (Côte d’Ivoire, Lesotho, Kiribati, Sudan, The Gambia, Guinea-Bissau and Mauritania) less than 10 per cent of the poorest households have electricity (an average of 3 per cent for these seven countries).

Taken together, and given large differences in access to technologies, these results show that no single delivery channel for remote learning is sufficient to reach all children and the rural poor are far more likely to be left out by technology-enabled remote learning.

### EDUCATION RESPONSES AND PROMISING PRACTICES FOR EQUITABLE REMOTE LEARNING

Governments and other education stakeholders around the world have acted promptly in response to the crisis. UNICEF education staff around the world are working with education ministries and others to support the planning and implementation of remote learning. This includes the development of a remote learning decision tree (UNICEF, 2020), a quick tool education stakeholders can use to determine the most appropriate channels to deliver remote learning for different populations. In addition, UNICEF education staff in 127 countries<sup>3</sup> have reported data on governments’ education responses to the crisis (see Annex 1 for the list of countries for which there are data).

<sup>2</sup> Simple (unweighted) average of the following 28 countries with wealth quintile data: Bangladesh, Belize, Côte d’Ivoire, El Salvador, The Gambia, Georgia, Guinea-Bissau, Guyana, Iraq, Kazakhstan, Kiribati, Kyrgyzstan, Lao PDR, Lesotho, Mauritania, Mexico, Mongolia, Montenegro, Palestine, Panama, Paraguay, Serbia, Sudan, Suriname, Thailand, Tunisia, Turkmenistan and Viet Nam.

<sup>3</sup> As of 27 April 2020.

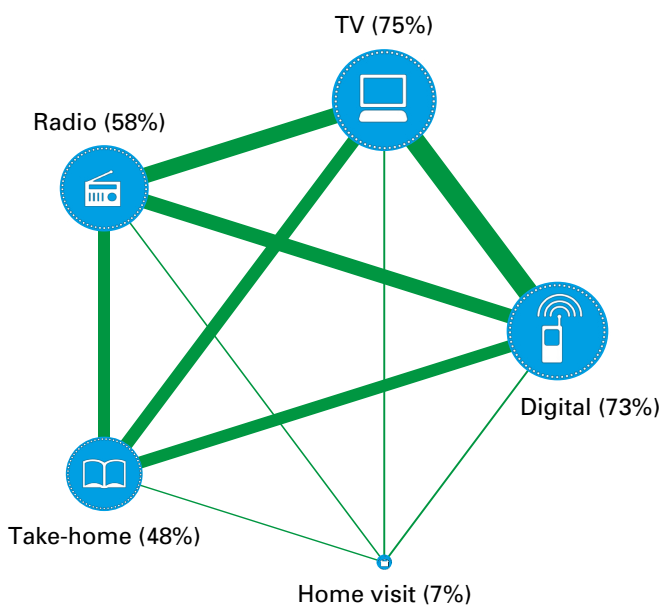
## 1. Given the digital divide, use multiple delivery channels

Governments are increasing access to digital content for children where possible. Initiatives include negotiating with telecommunication companies to subsidize connectivity (North Macedonia), providing free/low-cost SIM cards (Kyrgyzstan) or not charging data costs for education content (Rwanda, South Africa, Jordan, Paraguay). In some countries, governments or other education actors are delivering devices such as radios (Somaliland, Burkina Faso) and secure digital (SD) cards for mobile phones preloaded with audio content (Burundi) to families in hard-to-reach areas. In Greece, UNICEF is working with the Akelius foundation to deliver tablets with preloaded language learning content to refugees and migrants. Likewise, in Viet Nam UNICEF has procured 'Pad and Puck' packages (tablets and Wi-Fi) to help vulnerable groups continue learning and maintain peer-to-peer communication.

However, as shown in the earlier **Access to technologies for remote learning** section, digital channels are not sufficient to reach all children, especially the most disadvantaged, even with initiatives to increase learning access in the short-term. To expand their reach, 68 per cent of the 127 countries for which there are data are using some combination of digital and non-digital delivery of remote education (TV, radio and take-home packages).

### Figure 4: Multiple delivery channels for remote learning

Percentage of countries using remote learning delivery channels (127 reporting countries)



Source: UNICEF COVID-19 Education Response Survey – 127 countries.

TV is being used by 75 per cent of countries, some also delivering content for pre-primary school children and their families (Mexico, Montenegro). Some countries are providing accessible TV classes for children with hearing impairment using sign language (Morocco, Uzbekistan). Radio is a widely used tool: 58 per cent of countries report using it to deliver audio content such as in Lao PDR and Madagascar where governments were able to quickly implement education programmes developed during previous crises.

Almost half the countries are also using take-home packages for learners. Mauritania is using take-home packages alongside radio and TV programmes because only 37 per cent of the poorest households have access to a radio, and less than 1 per cent have access to a TV (MICS5, 2015). In Jordan, refugee children are receiving learning packages and in Jamaica the Ministry of Education is distributing learn and play kits for children in quarantined zones, as learning materials and parental support are key drivers for children’s learning in the most challenging contexts (see UNICEF Office of Research’s brief, Parental engagement in children’s learning (Innocenti Research Brief, 2020-09).

Figure 4 shows the percentage of countries that use a remote learning channel (digital platform, TV classes, radio, take-home materials or home visit) in their national educational response. The weight of a line between two channels represents how often the two delivery channels are used in the same country. The thick path between digital and tv platforms, for example, illustrates that countries often use both delivery channels in their national response. Similarly, many countries use both radio and take-home materials.

## 2. Strengthen support to the teachers, parents and caregivers delivering remote learning

Access to content is only the first step in remote learning. Countries are engaging with caregivers to help them both support learning and also provide psychosocial support to children (Bhutan, Cameroon, Ecuador, Eswatini, Guatemala, Oman). Countries are supporting caregivers who have been thrust into teaching at home with tutoring materials, webinars/helplines to answer their questions (North Macedonia, Uruguay) and peer-to-peer support groups (Montenegro, Oman). Some countries have also used UNICEF’s U-Report tool to engage with adolescents and share tips for online safety (North Macedonia, Serbia). Children’s digital safety is critically important as the increasing use of the internet for remote learning has the potential to increase children’s exposure to online risks, including sexual exploitation, harmful content, inappropriate sharing of data and cyberbullying (see UNICEF Office of Research’s Global Kids Online Comparative Report, Livingstone et. al., 2019).

*Girls face greater barriers to education and are more vulnerable to abuse such as domestic/ gender-based violence when not in school* (ECW, 2020). Countries must have specific strategies to both keep them safe and ensure they can access education. The Ministry of Education in Ghana is producing campaigns to encourage parents to allow girls to continue their education and not to increase their household responsibilities. In India, UNICEF has worked with the Ministry of Women and Child Development to develop a manual to help caregivers provide psychosocial support for children. They have also increased the promotion of the 24-hour toll-free helpline for children, CHILDLINE. In Argentina, UNICEF is supporting the development of TV and radio education content that includes messages on violence, abuse, and gender equality.

Some countries are also investing in developing the skills needed to support delivery of remote learning. [Azerbaijan](#), Jordan, Peru and the Maldives have invested in capacity development of teachers and counsellors. In [Malaysia](#), the Ministry of Education launched a massive open online course (MOOC) to train teachers in the use of digital platforms. In Montenegro, video materials containing games are prepared for parents and caregivers by preschool teachers with explanations on how they support child development. In many countries, teachers are being encouraged to stay in touch with students and their parents through messaging app groups and phone calls (Croatia, Tunisia).

### 3. Gather feedback and strengthen monitoring of reach and quality

Countries have also engaged in a variety of measures to collect feedback on remote learning, and to understand the usage and effectiveness of different delivery channels. Several countries are using simple tools (SMS in Tanzania, chatbots in Mongolia, U-Report in The Gambia and Moldova) to gather feedback from parents to improve remote education. Online platforms that track unique users and assessments provide data for monitoring learning outcomes. In [Egypt](#), for instance, students can register on the Egyptian Knowledge Bank (EKB) platform using a national ID. Vulnerable groups who may not have access to legal identification/birth registration (UNICEF, 2019) can still access the platform through an open portal that does not require any login credentials. Serbia, South Africa, Kazakhstan and Azerbaijan have also incorporated assessment tools into their digital platforms. However, while there is a great need to understand how remote learning during COVID-19 has impacted children, governments and other education actors must take care to ensure that any data collection exercise from children follows ethical considerations and – first and foremost – does no harm. ([Berman, 2020](#))

### Towards a post-COVID-19 agenda: What these emerging lessons mean for education policy makers and development partners in the current crisis and going forward

1. **Education systems need a ‘Plan B’ for safe and effective learning delivery when schools are closed.** Resilient systems have resources and redundancies that can be leveraged in times of shock when core delivery models are disrupted. Producing accessible digital and media resources based on the curriculum will not only allow a quicker response, but their use in ordinary times can also enrich learning opportunities for children in and out of school.
2. **Infrastructure investment in remote and rural areas to reach marginalized children should be a priority.** Initiatives like [Generation Unlimited](#) and [GIGA](#), an ITU-UNICEF partnership that aims to provide connectivity to schools, and domestic investments in electricity and connectivity infrastructure will democratize access, increasing options for remote learning delivery and speeding up response during school closures.
3. **Teacher training should change.** It will be useful both in times of normality and crisis to build teachers’ capacity to manage a remote ‘virtual’ classroom, improve their presentation techniques, train them to tailor follow-up sessions with caregivers and blend technology effectively into their lessons. Many teachers will be able to build on the knowledge and expertise they have swiftly acquired in response to this crisis.
4. **Further applied research for learning and sharing what works is more important than ever.** Increased focus on implementation and operational research is needed to develop practical ways to improve teacher training, content production, parental engagement, and to leverage the use of technologies at scale.

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## ANNEX 1: COUNTRIES IMPLEMENTING VARIOUS COVID-19 RESPONSES

(Source: UNICEF – COVID-19 education response survey)

Govt supported digital website/apps with content (No. of countries=86)	Other self-learning based digital learning apps/websites (No. of countries=38)	TV programmes (No. of countries=93)	Radio learning programmes (No. of countries=74)	Paper-based response with take-home packages (No. of countries=61)
Afghanistan	Botswana	Afghanistan	Afghanistan	Afghanistan
Albania	Bulgaria	Albania	Algeria	Argentina
Algeria	Burkina Faso	Algeria	Argentina	Bosnia and Herzegovina
Argentina	Cambodia	Argentina	Armenia	Botswana
Armenia	Cameroon	Armenia	Botswana	Brazil
Azerbaijan	Cook Islands	Azerbaijan	Brazil	Bulgaria
Bosnia and Herzegovina	Croatia	Bangladesh	Burkina Faso	Cameroon
Botswana	Djibouti	Bosnia and Herzegovina	Burundi	Colombia
Brazil	Egypt	Botswana	Cambodia	Congo
Bulgaria	Fiji	Brazil	Cameroon	Democratic Republic of the Congo
Burkina Faso	Ghana	Bulgaria	Central African Republic	Dominican Republic
Cambodia	Guatemala	Burkina Faso	Chad	El Salvador
Cameroon	Guinea	Cambodia	Colombia	Eritrea
Chad	India	Cameroon	Congo	Ethiopia
China	Indonesia	Chad	Côte d'Ivoire	Fiji
Colombia	Jamaica	China	Democratic Republic of the Congo	Gabon
Costa Rica	Jordan	Colombia	Djibouti	Georgia
Côte d'Ivoire	Kazakhstan	Congo	Dominican Republic	Guatemala
Croatia	Kiribati	Côte d'Ivoire	Ecuador	Guyana
Cuba	Malaysia	Croatia	El Salvador	Haiti
Democratic Republic of the Congo	Maldives	Cuba	Equatorial Guinea	Indonesia
Djibouti	Montenegro	Democratic Republic of the Congo	Eritrea	Jamaica
Dominican Republic	Morocco	Djibouti	Ethiopia	Jordan
Ecuador	Namibia	Dominican Republic	Fiji	Kazakhstan
Egypt	Nepal	Ecuador	Gabon	Kenya
El Salvador	Niger	Egypt	Gambia, The	Kiribati
Gabon	Nigeria	El Salvador	Ghana	Lebanon
Ghana	North Macedonia	Equatorial Guinea	Guatemala	Lesotho
Guatemala	Palestine	Ethiopia	Guinea	Liberia
Guyana	Panama	Fiji	Guinea-Bissau	Madagascar
Haiti	Philippines	Gabon	Guyana	Malawi
Honduras	Republic of Moldova	Gambia, The	Haiti	Maldives



Govt supported digital website/apps with content (No. of countries=86)	Other self-learning based digital learning apps/websites (No. of countries=38)	TV programmes (No. of countries=93)	Radio learning programmes (No. of countries=74)	Paper-based response with take-home packages (No. of countries=61)
India	Samoa	Georgia	Indonesia	Mali
Indonesia	Senegal	Ghana	Iraq	Mauritania
Iraq	Suriname	Guatemala	Jamaica	Mexico
Jamaica	United Republic of Tanzania	Guinea	Kazakhstan	Micronesia (Federated States of)
Jordan	Vanuatu	Guinea-Bissau	Kenya	Morocco
Kazakhstan	Viet Nam	Guyana	Kiribati	Mozambique
Kenya		Haiti	Kosovo	Myanmar
Kiribati		Honduras	Lao People's Democratic Republic	Namibia
Kosovo		India	Lesotho	Nepal
Lao People's Democratic Republic		Indonesia	Liberia	Niger
Lebanon		Iran (Islamic Republic of)	Madagascar	Nigeria
Libya		Iraq	Malawi	Pakistan
Madagascar		Jamaica	Mali	Panama
Malawi		Jordan	Mauritania	Paraguay
Malaysia		Kazakhstan	Morocco	Senegal
Maldives		Kenya	Mozambique	Serbia
Mali		Kiribati	Myanmar	Sierra Leone
Mexico		Kosovo	Namibia	Solomon Islands
Montenegro		Lao People's Democratic Republic	Nepal	Somalia
Morocco		Lebanon	Niger	Sri Lanka
Mozambique		Lesotho	Nigeria	Syrian Arab Republic
Myanmar		Libya	Pakistan	Tajikistan
Namibia		Malaysia	Palestine	Timor-Leste
Nepal		Maldives	Panama	Tonga
Niger		Mali	Papua New Guinea	Tunisia
Nigeria		Mauritania	Paraguay	Vanuatu
North Macedonia		Montenegro	Peru	Viet Nam
Oman		Morocco	Republic of Moldova	Zambia
Pakistan		Mozambique	Rwanda	Zimbabwe
Palestine		Myanmar	Samoa	
Panama		Namibia	Senegal	
Paraguay		Nepal	Sierra Leone	
Peru		Niger	Somalia	

Govt supported digital website/apps with content (No. of countries=86)	Other self-learning based digital learning apps/websites (No. of countries=38)	TV programmes (No. of countries=93)	Radio learning programmes (No. of countries=74)	Paper-based response with take-home packages (No. of countries=61)
Philippines		Nigeria	South Africa	
Republic of Moldova		North Macedonia	Swaziland	
Romania		Oman	Timor-Leste	
Rwanda		Pakistan	United Republic of Tanzania	
Samoa		Palestine	Vanuatu	
Senegal		Panama	Venezuela	
Serbia		Papua New Guinea	Viet Nam	
Sierra Leone		Paraguay	Zambia	
Somalia		Peru	Zimbabwe	
South Africa		Republic of Moldova		
Sri Lanka		Romania		
Suriname		Rwanda		
Tajikistan		Samoa		
Timor-Leste		Senegal		
Tunisia		Serbia		
Uganda		Somalia		
United Republic of Tanzania		South Africa		
Uruguay		Sri Lanka		
Venezuela		Suriname		
Viet Nam		Swaziland		
Zambia		Syrian Arab Republic		
		Tajikistan		
		Timor-Leste		
		Tunisia		
		Vanuatu		
		Venezuela		
		Viet Nam		
		Zambia		

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