5 Summary and conclusions

This chapter summarises the main methodology and findings of the report. Limiting its conclusions to information drawn on studies based on probability samples in the few countries that carried them out during the first wave of lockdowns, the chapter reviews the main findings concerning: schooling and delivery of educational content during the lockdowns; how the lockdown affected the parental employment situation; the impact on family's well-being and health; the impact on academic progress. It then concludes and calls for caution and patience in establishing (and also estimating) the possible impact of school closures on academic achievement.

Introduction

What we know about the experience of education during the first wave of school closures of April to June 2020 is constrained by a shortage of good quality empirical data and the fact that the "good" data that exist are partial and often not entirely comparable. This reflects the sudden and unexpected nature of the COVID-19 pandemic and the fact that the restrictions associated with lockdowns created less than ideal conditions for the conduct of survey-based research. In order to study the behaviour and attitudes of individuals during lockdowns, new data collections had to be put in place or existing collections and instruments revised. New guestions had to be developed to collect information on phenomena such as remote (or home-based) schooling, teleworking, furlough and the adoption of recommended health behaviours. These needed to be developed quickly without sufficient time for testing. Probability sampling was difficult due to time constraints and the absence of appropriate sample frames. Methodological shortcuts and compromises were often adopted and data quality commonly sacrificed in the name of timeliness. The use of open access or "participative" online surveys was commonplace. In the case of surveys based on probability samples, response rates were often low. Surprisingly few national statistical offices or education ministries undertook special data collections related to the pandemic and its effects using probability samples. National testing programmes in schools scheduled during this period often did not proceed or proceeded with reduced participation by schools and students.

The information presented in this report is taken from sources that maintained minimum quality standards regarding the collection of data, particularly regarding sampling. At the same time, it reflects the limitations of the available data: the small number of countries/regions for which "good" data are available (primarily Australia, Canada, Germany, Flanders, France, Ireland, Italy, the Netherlands, the United Kingdom and the United States), the variation in the coverage and treatment of different topics in the different surveys and the limited comparability of information collected on similar topics. Obvious caution must be exercised in generalising from the experience of school students, their families and the wider population as reported in these countries, especially to low- and middle-income countries (where the duration of closures was often longer and the challenge of putting alternative delivery arrangements in place far greater). That being said, these data provide an important, if imperfect and incomplete, insight into the educational experience of schoolchildren and their families during the school closures and lockdowns of March-June 2020.

What do we know?

Schooling during the first wave of lockdowns

Duration of school closures

The duration of school closures over the period February to end-June 2020 (the end of the school year in the northern hemisphere) was between 0-19 weeks (including vacations) in OECD countries depending on the level of schooling (Figure 2.1). Net of school holidays and other public holidays in this period (around 2-3 weeks in most countries), closures meant the substitution of 4-9 weeks of face-to-face instruction with home-based learning in the majority of OECD countries.

Delivery

The use of online tools and platforms represented the predominant mode of delivery of lessons and instructional material for students undertaking their schooling at home as well as for communication between teachers and students. Hardcopy or paper-based materials continued to be used, though by a minority of students with considerable variation between countries. The reliance on online tools and

resources increased with the age and year level of schoolchildren. The use of live online classes or interactions with teachers was rather limited.

Adjustments to the content of instruction

There is evidence that teachers adjusted the content and focus of instruction to reflect the new circumstances of learning. Teachers may have placed more emphasis on preserving pupils link with learning and reviewing content already covered earlier in the year than following the planned curriculum and introducing new content.

Time spent on schoolwork

The time spent at home on schoolwork by children was about half of what they would have spent in classroom-based instruction in normal times. A by no means negligible proportion of pupils (up to 20% in some countries) may have stopped their education altogether during this period and undertaken no schoolwork at all. There was considerable variation in the time spent on schoolwork between individual students.

Role of parents

During school closures, parents played an important role in supporting and supervising their children's education, particularly in the case of younger children who were less likely to be able to work unsupervised. Children in secondary education, particularly those at upper secondary level tended to work autonomously. Most, though by no means all, parents reported that they spent more time assisting children with schoolwork during school closures than in "normal" times. The average amount of time devoted by parents to support and supervise schoolwork was of relatively short duration and more time was spend on younger than older children. While many parents felt comfortable in supporting their children's education at home, a large proportion did not – at least half, if not more, in the countries in which information is available.

Difficulties faced by children regarding education

When asked about the reasons for which children experienced difficulty in continuing their education at home, the problems most commonly cited by parents and teachers were of a psychological and social nature such as lack of motivation, loneliness, etc. Difficulties related to access to the technology needed to communicate electronically with schools and teachers and access online educational resources were experienced by a significant minority of children even if most children in the countries for which data are available had access to Internet connections and the necessary devices to continue their schooling online.

The home environment

The period of confinement was a period of stress for many parents and adults more generally. In particular, the levels of anxiety experienced by adults increased considerably at the start of lockdowns and remained above pre-lockdown levels even after lockdowns had been ended. Lockdowns and home schooling created some conflicts and tensions in some households but, overall, the appreciation of the effect of lockdowns on family life was positive and relationships between parents and children were not unduly affected. In the vast majority of cases, parents reported that relationships with children remained unchanged, and the share of parents reporting that relationships with children improved outweighs the share of those for whom relationships deteriorated.

The chances of children either having contracted the COVID-19 virus themselves or living in a household in which their parents/guardians or siblings had been infected were generally low but varied considerably

by country and region within countries. Among adults, infection rates varied across occupational categories.

Lockdowns resulted in considerable change to the working arrangements and employment situation of a large proportion of employed adults. The proportion of adults working from home increased significantly, with between 30-50% of employees who worked paid hours, working from home. In addition, a considerable proportion of employed adults (employees and the self-employed) were temporarily inactive due to business closures or reductions in activity. In some countries, this represented around one-third of employed adults. In others, unemployment rose dramatically. Financial stress was experienced by a minority of families, possibly reflecting the fact that considerable public support was available for both inactive workers and the unemployed in the countries for which data are available.

The changes to working arrangements had mixed consequences for families with school age children. On the one hand, job losses, and temporary lay-offs created stresses for the parents involved – reductions in income (though job retentions schemes and increases in unemployment benefits reduced their financial consequences for many) and concerns about their continued employment and professional future. On the other, presence at home due to unemployment, temporary layoff or enforced home/telework made it easier to deal with the presence of children at home and to find the time to support children's education.

For many parents, the adjustment that they needed to make to their working hours (actual hours of work and distribution over the day) to accommodate the presence of children at home was reduced hours. Parents on temporary layoff or working reduced or zero hours were available to provide childcare and assist their children's schooling and many parents working at home had more flexibility to reorganise their working hours than they might otherwise have had. Nevertheless, a significant minority of parents had to adjust their employment arrangements due to their increased responsibilities for the care and supervision of infants and school age children during school closures (e.g. reduced or changed working hours, stopped work altogether or took leave). Overall, however, most parents were able to manage to balance the competing demands of work and the care of and support for their children.

Outcomes: Psychological well-being and academic progress

Psychological well-being

Lockdowns and school closures involved their lot of inconvenience, difficulties and stress for school age children, but little more. The psychological well-being of most children did not decline to any great extent during lockdown compared to the situation prior to lockdown. The proportion of school-age children experiencing serious or severe symptoms of mental or psychological disorders may have risen during the period of lockdown. However, the proportion concerned was relatively small. Most school-age children, both before and during the period of lockdowns, did not display such symptoms.

Perceptions of the impact of school closures on children's education

Parents offer a rather mixed evaluation of the impact of lockdowns and school closures on children's development and educational progress. High levels of appreciation of the work of schools and teachers during school closures was accompanied by concerns regarding the effects of lockdowns and school closures on children's educational and social development. While a link with school was maintained by most children and there were some positive features of home schooling for children such as increasing autonomy in learning and the discovery of new methods of learning, many parents were concerned about lack of progress in some subjects and the possibility that their children were falling behind.

Academic progress

There is limited and conflicting evidence from standardised tests regarding students' learning progress during school closures compared to progress in "normal" conditions. The quality of the data varies somewhat, with a number of studies based on data from non-representative samples of schools or data that are affected by high rates of non-participation by schools and students. The differences observed between the performance of students tested in 2020 or in early 2021 with students in the same year of school in previous years range from small increases to large falls (the scale of which are, in some cases, implausibly large) depending on the countries, the year groups and the subjects concerned. At the very least, the available results in countries where relevant studies are available suggest that it should not be assumed that the school closures of March-June 2020 had a large negative impact on student progress and achievement.

The impact of social background

Understandable concerns have been raised regarding the differential impact of school closures on schoolchildren from different social backgrounds and the possibility that differences in the home situation of children from disadvantaged social backgrounds would exacerbate existing inequalities in achievement. There is little doubt that the negative impact of the pandemic has been greater among disadvantaged populations.

Rates of infection and COVID-19-related deaths varied across different social and occupational groups. In particular, infection and death rates were higher among the population living in areas of low as opposed to high socio-economic status (SES) in England and France and among certain ethnic groups, for example Blacks and Asians in the United Kingdom, first and second generation non-European immigrants in France and Blacks and Hispanics/Latinos in the United States. At the same time, infection rates were positively related to education and higher among people at the top and bottom of the income distribution than in the middle. In particular, this reflects the higher infection rates among frontline health workers than among other workers. Frontline health workers represent a highly heterogeneous group that includes both highly educated and highly paid workers (e.g. doctors and other medical professionals) and low educated and poorly paid workers (nursing assistants and cleaners in hospitals).

The effects of lockdowns on the employment situation of workers also differed by occupation. The incidence of temporary lay-offs was higher in lower status than higher status occupations (e.g. among manual workers as opposed to professionals) with the reverse being true regarding the incidence of home/telework. Loss of income associated with lockdowns was concentrated among low income groups as a result. The incidence of mental health problems such as anxiety was also higher among adults in lower status occupations and among those with lower incomes and who had seen their financial situation worsen due to lockdowns.

In terms of children's education, children from less advantaged socio-economic backgrounds had greater difficulties than other children with access to the devices and connectivity necessary to continue their education at home. Students who completely dropped out of education during the period of lockdown appear more likely to come disproportionately from disadvantaged backgrounds and to have had a prior history of difficulties with schooling.

In the countries covered, there is limited evidence of family SES having an impact on the amount of time spent on schoolwork or the amount of time parents spent assisting children: children from all backgrounds seem to have devoted more or less the same time to their schoolwork and to have received the same amount of parental assistance. In fact, students from higher SES families sometimes received less support than those from lower status families. This may reflect the fact that parents in higher status jobs had less time to support their children as they were more likely to have been working (rather than being on temporary layoff or unemployed) during lockdowns than adults with less education in lower status

occupations. It may be possible that the effectiveness of the assistance offered was dependent of the level of education of parents. Importantly, however, the interest in and willingness to provide support was equally distributed across households from all backgrounds.

The evidence regarding the evolution of achievement gaps between children from different social backgrounds among students experiencing lockdowns and school closures in 2020 compared to their peers in previous years is mixed. Both little change in the size of achievement gaps related to social background and significant growth has been found.

In summary

The picture offered of the experience and consequences in high-income countries of the first wave of school closures of March-June 2020 in this report is a relatively optimistic one. The lockdowns and associated closures of schools implemented in response to the arrival of the COVID-19 pandemic represented a sudden and unprecedented event for which school authorities, teachers, parents and students were unprepared. Nevertheless, distance and remote education arrangements were put in place at short notice in emergency conditions. 2 This allowed education to continue at home for the majority of children and a form of in-person instruction to be offered to children with special needs and the children of parents with no other care options such as the children of "essential" workers. While few would disagree that the distance/remote education arrangements put in place represented a less than perfect substitute for normal classes, they ensured that most, though not all, children continued to have a connection with teachers and their schools. For the most part, teachers, students and parents adapted to the new arrangements. Most teachers continued to teach and most students continued to learn. Most parents were able to assist their children with their education if needed. Such a dramatic and sudden disruption to schooling arrangements could hardly be expected to have been without some impact on students' learning, especially when accompanied by a health crisis and the disruptive effect of lockdowns on every aspect of social and economic life. At this point, however, the evidence regarding the impact on academic progress is inconclusive and far from universally negative. Even if definitive conclusions cannot be drawn at this point, the negative consequences for the academic or broader development and mental health of schoolchildren may have been modest in scale and impact. Moreover, the report also highlights that there may also be positive lessons to be drawn from the health crisis as far as schooling is concerned. At least, the possible positive experiences from the lockdowns and its alternative mode of schooling should be considered when experimenting and reforming school provision during and after the pandemic.

Looking ahead

Assuming some effects on student's learning, an important question is whether students affected will be able to "catch up" on or consolidate any gaps in their learning resulting from the disruption to their schooling during the period of school closures. The scale of any on-going impact of the disruption to students' education caused by school closures on their academic performance and progress will be related to, among other things: (1) the relevance of what they "missed" for their subsequent educational progress, (2) the opportunities they have and support they are given to catch up on any learning "gaps" resulting from reduced instruction and learning during school closures, and (3) the evolution of the COVID-19 pandemic and the measures implemented to manage it, including further school closures and the quality of the remote education received during these periods.

Regarding missed instruction, for many students failing to cover some elements of the curriculum in some subjects may not matter for their subsequent progress (or, *a fortiori*, for their "human capital" when they enter the labour market). By no means all the content covered in a subject in one year is a necessary prerequisite for subsequent progress in either the subject area directly concerned or related areas. This is especially true at transition points (e.g. entering upper secondary school or moving from school to post-

secondary studies), where students start to specialise in certain subject areas rather than others (and, therefore, "drop" some subjects). Much of what is learned in school is not "used" in later life (as is evidenced by the speed at which it is forgotten). An important component of school learning is less about the retention of particular content than "learning to learn" and being aware that one can learn.

In terms of the opportunities for catch up, consolidation of the gaps in students' education due to the disruption flowing from school closures was high on the agendas of most governments and school authorities at the start of the 2020-21 school year. OECD (2021[1], Table 3.3) reports that around three-quarters of the countries for which data were available implemented "remedial measures to reduce learning gaps" when schools reopened after the first period of closures. In France for example, the priorities for the new school year included support for students to consolidate the aspects of their programmes that they did not cover due to confinement.³ In the United Kingdom, the Government introduced a Coronavirus (COVID-19) catch up premium and a national tutoring programme to support students and young people affected by the disruption of their education.⁴ The advice offered to schools at the start of the 2020-21 school year in England was to aim "to return to the school's normal curriculum in all subjects by summer term 2021".⁵ Even in the absence of specific programmes, it is likely that teachers would adjust their instruction to compensate for any content missed by students and that many parents⁶ would make efforts to ensure that their children catch up, as would the students themselves (especially those in high school). This is likely to be true regardless of their socio-economic status (although their effectiveness in reaching their goals may vary).

Box 5.1. Comparing the second to the first wave of school closures: Germany

(Wößmann et al., 2021_[2]) surveyed a representative sample of 2 000 parents in February-March 2021 to capture the experience of the second wave of school closures in Germany at the beginning of 2021. The results have been compared with their study of the first wave of school closures (Wößmann et al., 2020_[3]). The findings show the extent of adaptation to closures. Compared to the first wave, students spent more time on their schoolwork than during the second school closures (4.3 hours per day against 3.6 in 2020) and less time on other activities such as reading and exercise, and screen time (down from 5.2 hours per day in 2020 to 4.6 in 2021) (Wößmann et al., 2020_[3], Figure 1). Collective virtual classes were far more common (at least once a week for 74% of students in 2021 against 43% in 2020). Parents offered broadly similar ratings of the utility of school activities in 2020 and 2021 The share of parents feeling their children have learnt less than normal decreased slightly (from 64% in 2020 to 59% in 2021). Seventy-five percent of parents did not see any decline in the socio-emotional state of their children compared to before the pandemic. Some aspects of the experience changed, however, particularly regarding the family climate. The second lockdown was more stressful for both parents and their children and parents felt that it led to more family tensions than during the first school closures, even though 71% of parents still considered that the family coped well with the situation (against 86% in 2020). The overall picture offered by parents of the second wave is not very different from that of the first, notably when compared to "normal" times. It suggests that students may have made more academic progress during the second wave (as imperfect as conditions may have remained), but that both students and parents may have become more fed up with the situation.

The pandemic has continued to disrupt social and economic life into 2021. In most countries, the 2020-21 school year was disrupted, to a greater or lesser extent, by the COVID-19 pandemic and the measures put in place to control it (including further lockdowns and school closures in a number of countries). For example, in the United States, in some jurisdictions, schools remained closed during the whole school year, and the impact of those closures may have been different (both negatively and positively) to that

observed during the first wave. (The evidence to assess them is however still largely missing as of September 2021.) Even in countries where schools remained open during further lockdowns (such as France), children's education was affected by the implementation of strict sanitary protocols, the closure of classes and individual schools due to cases of COVID-19 among students and staff and the introduction of "hybrid" forms of schooling alternating face-to-face and online delivery of lessons. The continuing disruption is likely to have complicated the task of consolidating any learning gaps arising from the March-June 2020 school closures and, possibly, to have created additional learning gaps.

At the same time, one would expect that schools systems, teachers, parents and students learnt much from the experience of the first period of lockdown and school closures [see e.g. New South Wales (NSW) Department of Education $(2020_{[4]})$] for a reflection on the experience of closures in the first half of 2020]. This may have permitted them to effectively adapt to the circumstances of life and schooling during the 2020-21 school year and limit the negative effects on teaching and learning. There is some evidence that this occurred [see Del Bono et al. $(2021_{[5]})$ for the United Kingdom]. There is also evidence that teachers, parents and students changed their behaviour in subsequent lockdowns [see (Wößmann et al., $2021_{[2]}$) and Box 5.1 for an overview].

As for the psychological well-being of school age children, the question is much the same as for school achievement. Were the declines in well-being observed during the lockdowns of March-June 2020 an immediate and short-lived reaction to an extraordinary and stressful situation which were reversed as life returned to something approaching normal or were they more enduring? Again, more time and more data will be needed before this question can be answered.

This leads to the issue of data and the long-term monitoring of the consequences of the pandemic (not only for the period of school closures in the first half of 2020) on children's schooling and well-being. Surprisingly few high quality data collections were put in place during the period of school closures. This has restricted the capacity of researchers and analysts to have a good understanding what occurred during this period and of the behaviour and views of those involved and affected by closures and the disruption to school education. The collection of good data on the instructional practices and arrangements, the experience of pupils, teachers and parents and the outcomes of pupils continues to be important for the understanding of this extraordinary period and its consequences for schoolchildren's academic progress and well-being and the practice of education. It is also vital that school systems and Ministries of Education make publicly available as much of the administrative and other data regarding this period they can in easily accessible formats as well as facilitate access to relevant documentation about policies and administrative decisions during this period. Access to data from standardised tests is particularly important, not only from those that took place in 2020 and earlier years but, equally importantly, those that will take place over coming years.

In countries where national assessments did not take place or do not exist, international assessments such as those of the OECD Programme of International Student Assessment (PISA) combined with national data on the conditions of schooling during the pandemic will allow one to better assess the impact of the crisis. International assessments will also give us a better idea of the impact of the pandemic and of responses to it across countries, and notably whether it led to an increase in the achievement gaps between countries, notably high and middle-low income countries.

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Notes

¹ A plea regarding terminology. Much of the discussion regarding the possible effects of school closures on students' academic progress has been framed in terms of "learning loss". This misrepresentation of a situation that is better understood as one of (possibly) reduced learning gains relative to those expected in normal circumstances. The fact students did not attend school in person and that remote instruction was substituted for face-to-face instruction for a period did not mean that that they did not learn anything or, worse, that they somehow unlearnt what they had learnt up to that point. However, to the extent that learning inputs were reduced compared to normal times during this period or the effectiveness and efficiency of learning was reduced, students may have learnt less than they would otherwise have done.

² See the 53 "education continuity stories" from 34 countries posted by the OECD and the World Bank on their website that document different types of innovations or contingency plans to adapt to the school closures: https://oecdedutoday.com/coronavirus/continuity-stories/. They were documented in real time as part of a joing initiative by the OECD, the World Bank, Harvard Global Education Innovation Initative and HundrED. They will jointly be published by the OECD and the World Bank.

³ As an example: « Au lycée, la rentrée 2020 se place sous le signe de l'identification des besoins propres à chaque élève et des réponses personnalisées qui peuvent y être apportées, avec pour objectif de résorber les écarts qui ont pu naître pendant la crise sanitaire ». "In upper secondary schools, the start of the 2020 school year has as its focus the identification of the individual needs of each student and the personalised support that can be offered to overcome the gaps in learning that may have developed during the health crisis." https://eduscol.education.fr/cid152895/rentree-2020-priorites-et-positionnement.html

⁴ https://www.gov.uk/guidance/coronavirus-COVID-19-catch-up-premium

⁵ It was acknowledged that: "Substantial modification to the curriculum may be needed at the start of the year, so teaching time should be prioritised to address significant gaps in pupils' knowledge with the aim of returning to the school's normal curriculum content by no later than summer term 2021."

⁶ Acknowledging that the efforts of parents may well vary according to their socio-economic status.



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