

Benefits of remaining in education: Evidence and considerations *SPI-B and DfE.*

In this note, SPI-B and DfE have outlined the key evidence and considerations associated with the closure of schools. These have been grouped by theme:

- A. *Educational Outcomes*
- B. *Health, Wellbeing and Development*
- C. *Vulnerable Children and Socioeconomic Inequalities*
- D. *Classroom Learning Outcomes vs. Remote Learning*

It is important to note that school closures cannot be understood in isolation and tend to be accompanied by other restrictions (e.g. mixing beyond school, cancellation of sporting activities) and increased pressure on households (e.g. parents working from home, financial pressures).

Overall conclusions

1. School closures put educational outcomes at risk, especially for disadvantaged students **(High Confidence)**. Existing inequalities **(High Confidence)** and attainment gaps **(Low/Medium Confidence)** are already being exacerbated. Opportunities for early identification of emerging learning problems are also missed during school closures **(High Confidence)**.
2. School closures cause impairment to the physical and mental health of children. Evidence suggests that the mental health of adolescents is particularly affected **(High Confidence)**. Cognitive, social, and emotional developmental outcomes are also at risk **(Medium Confidence)** as is physical health **(Low Confidence)**.
3. School closures have a particularly adverse impact on vulnerable children due to reduced access to essential services **(High Confidence)**. Other lockdown-related stressors for children and parents, such as economic uncertainty, are also likely to be exacerbated **(Medium Confidence)**.
4. Extended periods of remote learning can lead to poorer educational outcomes, although some sources suggest that in the short-term adverse outcomes may be limited **(Low Confidence)**.

A. Educational Outcomes

*School closures put educational outcomes at risk, especially for disadvantaged students **(High Confidence)**. Existing inequalities **(High Confidence)** and attainment gaps **(Low/Medium Confidence)** are already being exacerbated. Opportunities for early identification of emerging learning problems are also missed during school closures **(High Confidence)**.*

- **School closures put educational outcomes at risk**, especially for disadvantaged pupils. Additional time out of school is detrimental for children's cognitive and academic development and their long-term productivity. The impact is likely to be greater for younger children, given the evidence that investments in children's

learning tend to accumulate and consolidate over time¹. The reduction in attainment as a result of school closure has been estimated by a number of studies:

- The Centre for Education Policy and Equalising Opportunities (CEPEO) meta-analysis of studies on individual pupil absences estimates that each day of individual pupil absence results in around 0.3%-0.4% of a standard deviation reduction in attainment².
 - A review by DELVE found that the most robust studies suggest an overall impact of between 6% - 10% of a standard deviation reduction in attainment due to time out of school in the 2019/20 academic year¹. Variation in the quantity and quality of remote schooling and home learning support between pupils and schools underlies much of the variation in learning loss over this period.
 - DfE's evidence shows that pupils with higher overall absence tend to do less well at KS2 and their GCSEs, and lower attainment in GCSEs can have a lasting effect on a pupil's life chances³.
- **Schools struggle to adjust their teaching patterns** when closed, especially if closure is unexpected and for an unknown duration. During lockdown in March, teachers experienced difficulty engaging pupils in out of school learning, especially in deprived areas. Teachers have reported that they expect students' studies to be impacted significantly. For example, A National Foundation for Educational Research report found that nearly all teachers (98%) reported that their pupils were behind where they would normally expect them to be in their curriculum learning at the end of the 2019/20 school year⁴.
 - **School closures mean emerging learning problems may be missed** by educational psychologists. Assessments of development undertaken remotely are limited. This, potentially, means that opportunities for early intervention addressing any emerging concerns will be missed.

B. Health, Wellbeing and Development

School closures cause impairment to the physical and mental health of children. Evidence suggests that the mental health of adolescents is particularly affected (High Confidence). Cognitive, social, and emotional developmental outcomes are also at risk (Medium Confidence) as is physical health (Low Confidence).

- **School closures cause deterioration in children's mental health¹**. Even before lockdown, mental health problems and self-harm were increasing in young people. Recent NHS data found that rates of probable mental health disorders have increased amongst 5-16 year olds since 2017, rising from 1 in 9 in 2017 to 1 in 6 (16%) in July 2020. Increases were greatest amongst 5-10 year olds (53%) compared with a 40% increase amongst 11-16 year olds⁵. Evidence suggests adolescents are particularly negatively affected by school closures, as are vulnerable children, those with particular conditions (e.g. autism), children in care and those with probable mental disorders^{1,5}. A number of studies have reported that increases in anxiety and depression symptoms are greater amongst black, Asian and minority ethnicity (BAME) heritage young people^{6,7}. Failures to positively support psychological wellbeing are likely to have longer term negative implications for child development^{8,9}. Further data illustrating of the impact of school closures on the mental health of children are outlined below.

- Girls who did not attend school in June-July were significantly more likely to have a probable mental health disorder than those who attended school full or part-time. There were similar but not significant trends for boys.
 - 55% of children aged 5-17 said that they had felt stressed, even if just a little bit, since schools closed⁵.
 - The National Child Mortality Database for England reported that deaths by suicide of young people (<18years) increased by around 40% during lockdown in England, although low weekly numbers mean findings did not reach statistical significance. COVID-19 related factors including school issues were reported to have contributed to death in 12 of the 25 cases identified during lockdown¹⁰. Suicide is the leading cause of death in England in 5-19 year olds, and many more young people will die from suicide than Covid-19 this year.
 - Self-harm issues are also a growing concern in young people, with a rise in self-harming rates of 27% among children and young people since last year¹¹.
- **Time out of school generates substantial psychological inequalities** on children. This is best understood with respect to summer holidays, where the relationship between parental socioeconomic position and mental wellbeing is mediated by loneliness, lack of socialisation, lack of physical activity and hunger. It is reasonable to expect that similar mechanisms apply in the context of Covid-related school closures¹².
 - **Schools provide routine for children and are one of their main sources of physical activity.** Levels of physical activity are likely to be lower as a result of remote schooling. A large nationally representative study found that 60% of English 13-18 year olds reported not regularly exercising in the week during the time schools were closed⁶. Additionally, sleep patterns and diets have been found to worsen when children are out of school¹. Evidence suggests the potential for sleep problems to emerge or worsen during and following the pandemic is high. During lockdown in March, 70% of children under 16 were going to bed later – but were also waking later (57%). This represents a clear risk and obvious knock-on effects when schools re-open^{13,14}.
 - **School closures increase the time exposure of children to the internet** with potential negative consequences such as increased susceptibility to digital dependency, online abuse, harassment and bullying, and exposure to violent content and pornography¹⁵.
 - **Schools are a platform for delivery of vaccinations, including influenza vaccination.** Influenza vaccination is offered through schools to all primary years and year 7. School closures may therefore compromise vaccination targets for winter 2020.
 - **School closure leads to increased isolation and mental health problems for children and adolescents.** Children will miss opportunities for pro-social interactions with their peer group. Social isolation and lack of contact with peers is likely to be particularly harmful for adolescents¹. Systematic reviews confirm the likelihood that isolation and loneliness increase mental health problems for children; the longer the period of isolation the greater the risk of future mental health problems¹⁶.
 - **School closures put developmental outcomes at risk.** Attending an early years setting is highly valuable for all children, leading to positive social and emotional, language, and physical development. Cognitive development gaps at age 5 persist

into later childhood, influencing formal education attainment and later labour market outcomes¹⁷ The lack of access to provision during lockdown means that children's development is being significantly compromised¹⁸.

C. Vulnerable Children and Socioeconomic Inequalities

School closures have a particularly adverse impact on vulnerable children due to reduced access to essential services (High Confidence). Other lockdown-related stressors for children and parents, such as economic uncertainty, are also likely to be exacerbated (Medium Confidence).

- **Vulnerable children are likely to be most affected by school closures.** This is expected to be the case among a range of vulnerabilities. For example, those with SEND (special educational needs and disability) are very likely to be adversely affected. The most vulnerable will be negatively affected by existing family distress, housing, poverty, lack of outside space and opportunities for play and exercise, crucial for positive mental health and wider development. Attachment is likely to be a significant issue and will adversely affect children whose school provides the most stable and secure part of their lives through lack of emotional attachment. School attachment and belonging are also linked to later educational attainment¹⁹.
- **School closures reduce the visibility of vulnerable children to protective services.** Under normal circumstances, universal services such as schools, are vital for detecting early signs of abuse and neglect. For example, one regional study presents evidence that schools have been the source of 40% of child protection/safeguarding referrals for children²⁰. The combined impact of increased stressors on caregivers, increased child vulnerability, and reduced safeguards that has amplified the potential for new and recurring cases of abuse in all its forms²¹. Evidence shows that during the first lockdown there was a reduction in child protection referrals and increases in reports of domestic violence and abuse to children^{22,23}. The disruption of the myriad of protective measures and services designed to detect, prevent and respond to maltreatment may lead to a substantial surge demand in the future. DfE²⁴ established a survey of local authorities in England to help understand the impact of the coronavirus (COVID-19) outbreak on Children's Social Care²⁵.
 - The total number of referrals to children's social care services reported in Waves 1 to 10²⁶ of the survey was 102,910, this is around 13% lower than the same period over the past three years. In open text responses local authorities continue to note they are expecting a spike in demand and had done work to predict and plan for this.
 - A common theme mentioned on type of cases received has been an increase in domestic abuse being reported. In more recent waves (9 -10), some local authorities describe an increase in the complexity of their cases.
- **Previously available formal and informal support has decreased** as a result of the coronavirus outbreak according to reporting by parents and carers. Additionally, there is some evidence to indicate that EHC needs assessment and review work are being withdrawn. This may result in an escalation of needs.²⁷ Even with the schools open, the demand for initial peak, and longer term developmental, psychological, educational and social support stands to overwhelm the system²⁸.
- **Schools offer an important physical space for children to have time away from home.** The Children's Commissioner for England noted that the negative effect of

extreme financial strain on some families during lockdown, combined with family members stuck at home in close proximity has made life more challenging for children. The report estimated that as many as 550 homeless families with children could have spent the whole of lockdown in a B&B, which often means sharing a single room, with kitchen and bathroom facilities shared with other households and thus exacerbating particular stressors²⁹.

- **School closures reinforce existing inequalities** in both children's educational achievement and their long-term prospects¹. It is very likely that the gaps in provision of remote schooling by schools and families have exacerbated existing inequalities between students from low and high socio-economic status families¹. A significant number of children will struggle to access suitable study spaces, equipment, and The Internet, while others are not in positions to be supported with their online learning at home. Research from the Education Policy Institute finds that disadvantaged pupils are over 18 months behind their more affluent peers in attainment by age 16. The impact of the pandemic will almost certainly widen this gap³⁰.
- **School closures are likely to exacerbate other lockdown-related stressors for children and parents.** Parental stress is thought to impact directly on child wellbeing. For example, the Great Recession of 2008 and the economic uncertainty it caused was associated with an increased risk of child abuse and harsher parenting by mothers¹. Additionally, school closures exacerbate the burden of unpaid care undertaken by women and girls and can limit opportunities for learning at home for girls compared to boys³¹.
- **Free school meals are a key source of nutrition for deprived children.** 49% of eligible children did not receive any form of free school meal or replacement voucher in the month following the initial lockdown.³²

D. Remote learning vs. classroom learning outcomes

Extended periods of remote learning can lead to poorer educational outcomes, although some sources suggest that in the short-term adverse outcomes may be limited (Low Confidence).

- **It is not clear that online interactions make up for the social isolation and lack of face-to-face interactions** resulting from school closures. Data from the Co-SPACE study found that over 80% of children and 40% of adolescents had not communicated with friends via social media in the previous week during the first lockdown when schools were closed, indicating marked reduction in social contacts³³.
- **International evidence for primary and secondary schools suggests an extended period of remote learning is likely to result in poorer educational outcomes**, particularly for early-years children, students from low socioeconomic backgrounds, those with English as a second language, those with special learning needs, and students who are generally less engaged with school, though data is limited and varied.
 - Studies of virtual charter schools in the *United States* have found variable results of the difference in outcomes between remote learning and classroom learning. Some virtual charter schools achieve similar or better student

outcomes than conventional schools. But on average, virtual schools have lower graduation rates and poorer student outcomes across maths, reading, English, language and arts subjects when ranked against comparable students in conventional schools³⁴. However, differences between US and UK education systems, and the unplanned and rapid transition to remote learning in the UK due to COVID-19, may limit the direct relevance of these studies to the current context.

- On the other hand, evidence from *New Zealand* suggests that any adverse outcomes of remote learning may be negligible over the short term³⁵. Following the New Zealand earthquakes in February 2011, students in Christchurch and the surrounding Canterbury region experienced several months of disruption as a result of damage to school facilities. Despite this disruption, a New Zealand Ministry for Education study found there were no adverse educational outcomes for the majority of students, particularly when learning gaps were quickly identified and addressed.

¹ DELVE. Balancing the Risks of Pupils Returning to Schools. July 2020

² CEPEO. Briefing Note: School Absences and Pupil Achievement. April 2020.

³ DfE. The link between absence and attainment at KS2 and KS4 2013/14 academic year. March 2016.

⁴ NFER. The challenges facing schools and pupils in September 2020. September 2020.

⁵ NHS Digital. Mental Health of Children and Young People in England: Wave 1 follow up to the 2017 survey. October 2020.

⁶ Levita L. Initial research findings on the impact of COVID-19 on the well-being of young people aged 13 to 24 in the UK: COVID-19 Psychological Research Consortium (C19PRC). 2020.

⁷ Kooth. Week 14: How Covid-19 is Affecting the Mental Health of Young People in the BAME Community. June 2020.

⁸ WHO, 2004

⁹ Norredam et al., 2018

¹⁰ Odd, D., Sleep, V., Appleby, L., et al. Child Suicide Rates during the COVID-19 Pandemic in England: Real-time Surveillance. England: Healthcare Quality Improvement Partnership (HQUIP). 2020.

¹¹ Kooth. Week 14: How Covid-19 is Affecting the Mental Health of Children and Young People. June 2020.

¹² Morgan et al. Socio-Economic Inequalities in Adolescent Summer Holiday Experiences, and Mental Wellbeing on Return to School. 2019.

¹³ The Sleep Council. New Survey Reveals COVID-19's Impact on Kids' Bedtimes and Time on Devices. May 2020.

¹⁴ Becker S.P. and Gregory A.M. Editorial Perspective: Perils and Promise for Child and Adolescent Sleep and Associated Psychopathology during the COVID-19 Pandemic. May 2020.

¹⁵ Unesco. Adverse consequences of school closures. 2020.

¹⁶ Loades ME, Chatburn E, Higson-Sweeney N, et al. Rapid Systematic Review: The Impact of Social Isolation and Loneliness on the Mental Health of Children and Adolescents in the Context of COVID-19. July 2020.

¹⁷ Duncan, G. et al. School Readiness and Later Achievement. *Developmental Psychology*, Vol. 43/6, pp. 1428-1446. 2006.

¹⁸ Pascal, C. et al. Covid-19 Impacts: Early Years - Sutton Trust. 4th ed. 2020.

¹⁹ Wong et al. Feeling connected: The roles of student-teacher relationships and sense of school belonging on future orientation. 2019.

²⁰ Taylor et al. Effect of COVID-19 lockdown on child protection medical assessments: a retrospective observational study in Birmingham, UK. September 2020.

²¹ NSPCC Learning. Isolated and Struggling: Social isolation and the risk of child maltreatment, in lockdown and beyond. June 2020.

²² Bhopal S, Buckland A, McCone R, et al. Who has been missed? Dramatic decrease in numbers of children seen for child protection assessments during the pandemic. *Arch Dis Child*. 2020

²³ NSPCC. Calls about domestic abuse highest on record following lockdown increase. 2020.

²⁴ DfE. Vulnerable Children and Young People Survey. Summary of returns Waves 1 to 10. October 2020.

²⁵ Local authorities are asked to report to DfE every two weeks with the exception of four weeks between Waves 7 and 8

²⁶ In Waves 1 and 2, local authorities were asked to report the number of referrals to children's social care services they received in the last week. From Wave 3, local authorities were asked for the number of referrals to children's social care services the week before last to account for the lag in reporting that affected Waves 1 and 2. As such, the figures from Wave 3 onwards are not directly comparable to Waves 1 and 2. From Wave 3

onwards local authorities were also asked to report the sources of their referrals. Wave 1 04-6 May, Wave 10 21-23 September.

²⁷ Institute for Fiscal Studies. Learning during the lockdown: real-time data on children's experiences during home learning. May 2020.8

²⁸ Children's Commissioner. Childhood in the time of Covid. September 2020.

²⁹ Children's Commissioner. No way out. August 2020.

³⁰ Education Policy Institute. Preventing the disadvantage gap from increasing during and after the Covid-19 pandemic. May 2020

³¹ Unesco. COVID-19 school closures: Why girls are more at risk. April 2020.

³² Parnham JC, Lavery AA, Majeed A, et al. Half of children entitled to free school meals do not have access to the scheme during the COVID-19 lockdown in the UK. medRxiv 2020.

³³ Pearcey S, Shum A, Waite P, et al. Report 04: Changes in children and young people's emotional and behavioural difficulties through lockdown. Oxford: CoSPACE study. 2020.

³⁴ Fitzpatrick, B. R., Berends, M., Ferrare, J. J. & Waddington, R. J. Virtual illusion: Comparing student achievement and teacher and classroom characteristics in online and brick-and-mortar charter schools. Educ. Res. 49, 161–175. 2020.

³⁵ Beaglehole, B., Bell, C., Frampton, C. & Moor, S. The impact of the Canterbury earthquakes on successful school leaving for adolescents. Aust. New Zeal. J. Public Heal. 41, 70–73. 2016.