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 time. 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 attainment.
- 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 year. 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 chances.

- **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 year.

- **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.

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**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 health**. 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 olds. 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. 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. Failures to positively support psychological wellbeing are likely to have longer term negative implications for child development. 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 closed6.

The National Child Mortality Database for England reported that deaths by suicide of young people (<18 years) 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 reopen13,14.

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 outcomes. The lack of access to provision during lockdown means that children’s development is being significantly compromised.

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 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 attainment.

- **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 children. 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 forms. 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. 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. DfE established a survey of local authorities in England to help understand the impact of the coronavirus (COVID-19) outbreak on Children’s Social Care.
  - The total number of referrals to children’s social care services reported in Waves 1 to 10 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. Even with the schools open, the demand for initial peak, and longer term developmental, psychological, educational and social support stands to overwhelm the system.

- **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 stressors.

- **School closures reinforce existing inequalities** in both children’s educational achievement and their long-term prospects. 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 families. 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 gap.

- **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 mothers. 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 boys.

- **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.

### 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 contacts.

- **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 schools. 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 term.

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.

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1. DELVE. Balancing the Risks of Pupils Returning to Schools. July 2020
2. CEPEO. Briefing Note: School Absences and Pupil Achievement. April 2020.
8. WHO. 2004
9. Norredam et al., 2018
23. NSPCC. Calls about domestic abuse highest on record following lockdown increase. 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.

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