

The implications of Covid-19 restrictions for children and young people

A rapid review of evidence relevant to
Northern Ireland



NATIONAL
CHILDREN'S
BUREAU

Acknowledgements

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Executive summary

Introduction

The Covid-19 pandemic brought unprecedented and profound change into the lives of children and adults across Northern Ireland and the globe. While the virus itself wrought havoc on families, communities, public life and services, the restrictions brought in to control its spread had broad and deep impacts for everyone.

For policy makers and service providers, understanding what these impacts meant for children and young people was crucial during the acute phases of the pandemic and the recovery period. This remains crucial today, both to inform approaches to remediate long term impacts of the restrictions, and to prepare for future pandemics or other emergency situations. Therefore, a review was carried out in two phases: a rapid rolling review of the emerging evidence, carried out by the Public Health Agency (PHA) during the period of the pandemic itself, and a synthesis of evidence included in subsequent systematic reviews, commissioned by the PHA from the National Children's Bureau (NCB) in 2025, the findings of which are outlined in this report.

This 2025 rapid review summarises relevant evidence, selected using a systematic search and defined inclusion/exclusion criteria, and intends to provide an overall picture of the impacts of the Covid-19 pandemic restrictions on children and young people in Northern Ireland, through a process carried out with due scientific rigour. It shows the range and varied nature of impacts on different groups of children and young people. It summarises the impact on their relationships, loneliness and social isolation, mental health and wellbeing, education, learning and development, activities and sleep, physical health, financial and wider family impacts and safeguarding. It explores the impact on specific groups including those who experienced higher levels of disruption due to the pandemic, disabled children and young people, children and young people with disabilities, and those with particular individual or family characteristics and experiences. It draws out the main themes of policy and practice recommendations made by the studies that were included.

Overall feelings about the pandemic

Children and young people experienced a range of difficult feelings, which changed over the course of the pandemic. Many had anxieties about the virus, their family situation, the impact on their education and about the future. Being apart from friends and family were among the most difficult challenges. Some children and young people reported positive experiences alongside the challenges and restrictions, in the areas of improved relationships and better management of school tasks and routines. The second full lockdown was more difficult for many, and as late as the autumn of 2022, some young people felt that the pandemic was continuing to affect their mental and physical wellbeing and social life.

Relationships, loneliness and social isolation and activities

Loneliness was a major problem for many children and young people who missed their friends and wider family. Younger children were less able to organise their social life, while older young people missed the peer relationships of increasing significance. Not all children and young people felt lonelier however, and digital means of keeping in touch were important, with the majority of children and young people in Northern Ireland saying they could talk to friends as much as they wanted during lockdown. Unsurprisingly, patterns of loneliness tracked the extent of restrictions.

Many children and young people enjoyed spending more quality time with their families, and talked about shared activities and closeness, while others reported that their family relationships had worsened under the strain of being locked down together. The largest group of children and young people reported that their friendships had got neither better nor worse, but others reported positive or negative changes. Routines changed profoundly at times of lockdown, with children and young people missing their previous activities but some reporting enjoying having more time to devote to hobbies and interests.

Mental health and wellbeing

Two in five children and half of young people in Northern Ireland felt that their mental health and wellbeing had deteriorated over the lockdowns, affected by challenges of social isolation, anxiety about the future, and the difficulty of accessing mental health support.

Internationally and in Northern Ireland and the rest of the UK, there were general trends of worsening overall mental health and wellbeing prior to the pandemic. It is difficult to tell whether any further declines on average among children and young people into the pandemic were a continuation of this trend or an independent effect of the lockdowns and associated challenges, although fluctuations that tracked the extent of restrictions suggest that the pandemic did indeed have an impact. Longitudinal studies from the UK and Ireland that compared children's mental health during the pandemic with recent pre-pandemic data showed a mixed picture, with some studies showing deterioration in internalising symptoms, depression, externalising problems, post-traumatic stress disorder, eating disorders; others showing no evidence of change in anxiety and depression, externalising problems; and yet others showing improvement in anxiety and externalising problems. Patterns of healthcare usage for general mental health concerns, self-harm, suicidal thoughts and behaviours suggest levels of unmet need in the early months of the pandemic, likely in response to stay-at-home recommendations.

The qualitative evidence points to the diversity of mental health trajectories for individual children and young people, across the months of the pandemic, often tracking the extent of restrictions. For some, the times of strictest lockdown brought the greatest challenges and distress, while for others, these times brought some respite for others who had been experiencing social, academic or other drivers of poor mental health prior to the pandemic. This variability in experiences is also shown in the

quantitative data (e.g. Knowles et al., 2022) and this contributes to the mixed and sometimes contradictory findings presented here, along with the complex interplay of risk and protective factor over time (Newlove-Delgado et al., 2023). These are explored more in the final section of this report, which looks at changes in mental health and other outcomes over the pandemic for different sub-groups of children and young people.

Education, learning and development

Children and young people missed school and the social interactions and routines that went with it at times of closure. However, mitigations put in place by schools seemed to scaffold children's feelings of connectedness and happiness with school. They worried about their school performance and how they were managing tasks out of school. Many looked forward to going back to school but also shared worries and issues about relationships, infection control measures and school work. Some children thrived better while out of school, and for these it was more difficult to return. Other children remained in school, some of them benefiting from small class sizes and different experiences. Overall almost half of children and two thirds of young people felt their education had been negatively impacted by the pandemic and this proportion increased with time.

Schools worked hard to provide online and blended teaching as levels of restrictions varied. For those that were out of school, there was evidence that time spent on learning was significantly reduced during lockdowns. Children and young people's experiences of remote learning varied depending on the nature and level of school support and the appropriateness of teaching, including feedback and interaction. Access to digital devices, internet access and quiet study space had a major impact on their capacity to engage, as did the availability of support from parents. Children and young people worried about the impact of missed education, particularly those approaching transitions, and had mixed views about exams being cancelled. They were also impacted by the loss of additional support provided through school such as counselling.

Trends in attainment are difficult to measure given the different ways in which assessments were adapted or supported during the pandemic years. However, generally 2023/24 GCSE results have returned to pre-pandemic levels. There is also a gap in evidence on younger children's attainment in Northern Ireland: their peers in England showed significant learning losses but the youngest of these appeared to have recovered to pre-pandemic levels by spring 2023. Overall attendance rates in Northern Ireland remain slightly lower than in the years before the pandemic.

Parents worried about the impact of lockdowns on young children's development. The lack of opportunities to socialise and develop outside the home appeared to have a small enduring impact on babies' social communication but they were similar to their peers in previous cohorts in other areas of development.

Activities and sleep

Levels of physical activity were severely impacted by lockdowns and social distancing. Restricted opportunities to play, be outside, spend time on organised sport and activity all impacted on children and young people's levels of activity. However, experiences were mixed, with some reporting increasing levels of activity. Access to suitable spaces to play and keep active differed between children, as did the time and capacity of parents to support their children's outdoor activities. Levels of physical activity had knock-on effects on mental health and wellbeing, with higher levels of activity helping to protect children from anxiety and being a coping strategy for some. There were also impacts on children's strength and fitness, and some evidence that changes to physical activity persisted beyond the immediate lockdown suggesting longer term changes in habits.

In parallel to decreasing levels of physical activity, children and young people's sedentary time generally increased. Levels of screen time saw significant increases, as children and young people were using screens to do so many more of their usual activities including learning and socialising. Some young people found gaming to be a helpful coping strategy while international evidence suggested some concerns for high-risk groups. Such reviews also found concerns around increases in use of social media, but some young people also reported how this helped with their communication and socialising.

The evidence on the impact on sleep was mixed, with some studies finding improvements in children and young people's amount and quality of sleep, while others found no difference, likely due in part to different patterns in individual children and young people.

Physical health

Around a third of children and young people in Northern Ireland felt that their physical health was worse during lockdown, with a slightly higher proportion of young people feeling this a year on. On average, consumption of alcohol and other substances appeared to fall, while a minority of young people may have increased consumption of alcohol and cannabis as a coping strategy. The evidence on the impact on diet was mixed from across the UK and Ireland, with reports of more snacking and junk food but also more time for families preparing meals together and children eating breakfast. Children's and young people's weight, body mass index and prevalence of obesity appear to have increased during the pandemic. There were reports of increased risk of new-onset type 1 diabetes. Stay-at-home restrictions and redeployment of health staff were layered on pre-pandemic challenges in accessing timely health care, with a minority of children, young people and parents reporting that they had been unable to access medical treatment for an issue unrelated to Covid-19, and some evidence that parents were put off seeking help for their child. There was also evidence of mixed impacts on breastfeeding. Pre-pandemic trends in increasing waiting lists worsened during the pandemic. Generally, use of emergency health care fell during lockdown

across a range of conditions and concerns, with mixed evidence on the impact on children's health outcomes.

Financial and wider family impacts

Many children and parents reported changes to working practices during lockdowns. While parents who continued in work were much more likely to be working from home, a proportion also were furloughed, which often affected income, but redundancies also increased. The number of households on Universal Credit almost doubled between February and July 2020 and peaked in February 2021. The specific impact of the pandemic on levels of relative and absolute child poverty is difficult to unpick, not least because of the lack of data for 2020/21. However, there is evidence that food insecurity and other measures of financial strain increased.

Safeguarding

The vast majority of children and young people in Northern Ireland reported feeling safe at home during the pandemic. However, some reported feeling unsafe and missed the safety of school. The important role of schools and primary health services in reporting instances of child abuse and neglect was highlighted by the significant fall in child protection referrals in England in early lockdown. In Northern Ireland, rates of these referrals became more variable over the pandemic and showed more significant drops at times of stricter lockdown or school holidays, indicating that disruptions in face-to-face contact with children and young people was having an impact on professionals' capacity to spot and act on concerns.

Impacts on specific groups

Those experiencing high levels of pandemic-related disruption

There is strong evidence that the degree of disruption that lockdowns and associated measures brought to children and young people's lives had a significant bearing on their outcomes. While there were shared experiences, children and young people were not 'all in it together'. High levels of changes in circumstances, worries about the pandemic, barriers to remote learning, economic shocks, serious life events, bereavement and loneliness all served to worsen children's outcomes. These interrelating and compounding experiences (many of them overlapping with other issues discussed below) had a profound impact on how children and young people coped with the pandemic over time.

Disabled children and young people and those with special educational needs

Pre-pandemic challenges combined with specific impacts of lockdown to create very difficult circumstances for many disabled children and young people and those with special educational needs, and their families. In particular, high levels of loneliness, and disruptions to previous, carefully wrought routines and arrangements were difficult for children, young people and families to navigate, and the loss of formal and informal

supports (including those accessed through school) and respite support had a profound effect. Pre-existing higher levels of mental health difficulties persisted into the pandemic and there is mixed evidence about whether these worsened during the pandemic, with some evidence of particular disproportionate impacts on autistic young people.

However, mental health trajectories varied, often related to children and young people's previous experiences and what the pandemic meant for them.

Aspects of home schooling posed greater challenges to parents of children with special education needs, and parents and young people reported mixed experiences of support for this and communication with school, with this greatly appreciated where it was in place. Some children and young people found time at home to be a respite from the social and academic challenges of school.

There were concerns about negative impacts on disabled and seriously ill children and young people's physical health, and these families were more likely to report missed medical appointments. Families also reported significant financial strain, with rising household costs set against falling or static income. These families were much more likely than the general population to expect it would take over a year for their life to return to a pre-pandemic normal.

Socio-economic disadvantage

There were concerns that the pandemic would have disproportionate impacts on children and young people living in disadvantaged circumstances, such as those on a low family income, in receipt of benefits or living in a more deprived area.

These children and young people went into the pandemic with worse mental health than their peers. These differences generally persisted into the pandemic. However, the evidence on whether they experienced further disproportionate mental health impacts is mixed, with the weight of evidence suggesting that they were not more negatively impacted than their more advantaged peers. It may be that the narrowed inequalities seen in some longitudinal studies are explained by social isolation and reduced access to services bringing the experiences of more advantaged children closer in line with the more straitened experiences of their disadvantaged peers. Policies to mitigate economic challenges may also have reduced the level of strain on disadvantaged families. However, these children's mental health remained worse than their peers, even if the disadvantage gap narrowed.

In contrast, there is evidence that the disadvantage gap widened in educational experiences and outcomes, with potential drivers including differences in access to necessary space and equipment to engage with home learning, differences in support at home and from school, leading to greater reductions in learning time and widening gaps in primary attainment. Children and young people living in disadvantaged circumstances also had less access to activities and opportunities and may have been less physically active than their peers.

Other individual-level factors and experiences

Children and young people's individual characteristics and pre-pandemic experiences intersected with multiple other factors to create a complex and dynamic picture over the course of the pandemic. Despite these complexities, some tentative conclusions can be drawn about the impact on different groups.

In general, primary age children showed more variation in mental health and wellbeing over the pandemic, while older young people's symptoms were more stable. Primary age boys appeared to be at greater risk of deterioration in their mental health. Pre-pandemic higher levels of distress and lower wellbeing in adolescent girls persisted and the gender gap widened in this age group. There was a less clear picture of disproportionate gender impacts in relation to lost learning, physical activity and other outcomes.

Young people in sexual and gender minority groups faced some specific additional challenges from lockdowns including isolation from support networks, although some reported benefits of having more time to themselves and less pressure to conform. Generally, these groups had worse mental health going into the pandemic and these disparities persisted over time, as late as autumn 2022, with some evidence that they worsened.

Despite specific pandemic-related risk factors for children and young people from minoritised ethnic communities, including higher rates of Covid-19 illness and mortality, and heightened racist rhetoric around the spread of the virus, there is inconsistent evidence that pandemic impacts differed by ethnicity. Some studies found smaller increases or lower rates of mental health difficulties among young people from minoritised ethnic communities, while others found higher rates, and yet others found no differences. There was some evidence of differences in physical activity and experiences of home learning and support from school.

Prior to the pandemic, children and young people with poor physical health were more likely to have mental health difficulties. This group appeared not to see the same reductions in anxiety and improvements in wellbeing that others experienced going into lockdown, suggesting that the drivers of their worse mental health were not removed by being out of school, unlike some other groups. Sleep was more likely to worsen during the pandemic among young children with a long-term condition.

There were particular concerns about how the risks of lockdown, including loneliness, anxieties and challenges in accessing services, would have particularly problematic impacts for children and young people with pre-existing mental health difficulties. However, the picture was rather more mixed, with much of the evidence finding that this group saw greater improvements (or less deterioration) than their peers, particularly in early lockdown. This could have been due to school closures reducing the social and academic pressures that were contributing to young people's prior difficulties. However, other studies found opposite effects or no differences, suggesting a complex interplay of risk factors over time.

Other family, household and social support factors

Parental mental health was strongly associated with children's mental health prior to the pandemic, and these associations persisted into the pandemic. Carers with higher levels of distress were more likely to report pandemic-related difficulties in their children, and these were more likely among parents under financial strain during the pandemic.

Many children and young people described how their siblings helped them to cope with lockdown, despite the potential for conflict and pressure, and children without siblings did seem more vulnerable to increases in emotional and peer problems as reported by parents. Children living in one-parent households also seemed to be at increased risk of mental health difficulties and their parents were also at increased risk. The quality of family relationships also made a difference, with consistent evidence that children and young people who reported feeling closer to their family during lockdown, and for whom these relationships had improved, had improved mental health or less decline.

Young people with caring responsibilities had particular challenges of loneliness, exhaustion and anxiety during the pandemic, and many reported that their caring responsibilities had increased, along with associated challenges. They were more likely to say that the pandemic was still having a negative impact on their mental well-being in October to December 2022.

Additional challenges were also experienced by children and young people with experience of the care system, with particular anxieties and uncertainties around contact and engagement with social workers and families, and difficulties around transitions for young people leaving care. There was very little evidence around the impact on young people experiencing homelessness.

Social support was associated with young people's mental health during the pandemic, and support from friends and communities seemed particularly important for older young people. Lockdown appeared to provide some respite for young people who were less connected to their peers before the pandemic, were less connected to their school, or who had experienced bullying, with children generally reporting less bullying at these times. Returning to school appeared to be more challenging for these groups. Experiencing bullying *during* the pandemic was associated with worse mental health. Some young people did not see the same patterns as their peers, including LGBTQ+ students and those with health problems or disabilities, suggesting that some of the drivers of their distress were less influenced by school closures and other measures.

Conclusion and summary of recommendations from included studies

As shown by the large and diverse body of evidence, the pandemic had profound and multiple consequences for the lives of children and young people across Northern Ireland. All children's lives were disrupted by the social distancing requirements to control the spread of the virus: the restrictions on seeing loved ones, on being with friends, on accessing support and on being in school.

For some, these disruptions were accompanied by or precipitated additional changes and stresses individually or in the family, which put them at greater risk of poor outcomes. For others, their experiences were buffered by social support and resources. For yet another group, the lockdown offered some respite from pre-existing social, academic and other pressures. This diversity in experiences, described so eloquently by children and young people's qualitative accounts, helps to explain the complex and even contradictory quantitative evidence. Exploration of this diversity and the factors that made the pandemic better or worse for different groups has also shone a spotlight onto the pre-existing disparities in outcomes, and suggested ways in which these could be mitigated.

Many of the studies examined for this report made concrete recommendations for policy and practice. Some of these were very time- and context-dependent, and included

- recommendations made during the earliest months of the pandemic, with specific suggestions to mitigate the impacts of full lockdown
- pointers to support children and young people's recovery as schools and society reopened
- principles to help prepare for future emergencies (generally limited to respiratory pandemics)
- suggestions of how to address underlying inequalities that were confirmed by the pandemic.

Here, we summarise the recommendations of most relevance at the time of writing, namely addressing underlying inequalities and the learning for future emergencies.

Recommendations: remediation of ongoing impacts

Continuing to build back better

The unprecedented pressures and challenges of the pandemic brought a new lens to ongoing disparities in children's and young people's outcomes in Northern Ireland. This included, for example, disadvantage gaps in attainment and in mental health and wellbeing, and specific challenges for groups including disabled children and those with special educational needs, young carers, and those who identify as LGBTQ+. Many studies called for a new urgency in tackling these gaps.

Addressing the drivers of inequity

There was some evidence that early lockdown provided respite to some groups of children and young people, particularly those who had been experiencing social or academic challenges prior to the pandemic, including bullying, conflict or low connectedness with peers, or anxiety about schoolwork. For some this period of protection from harmful stresses was followed by increased anxiety and concern as schools reopened. As a result, multiple studies recommended tackling these pre-pandemic drivers through refocusing on wellbeing in schools and tackling bullying.

Prioritising groups with persistent difficulties

Some groups did not show improvements in wellbeing and mental health over the pandemic, indicating that the drivers of their unhappiness and distress remained in place even when schools were closed. This included LGBTQ+ young people and those with physical health difficulties. Other priority groups include those who developed unhealthy habits during the pandemic, including those whose physical activity reduced.

Improving screening and population-level data collection

Multiple studies recommended further work to improve datasets on children and young people's experiences over time. The Youth Wellbeing and Prevalence Survey provided important information about children's and young people's mental health immediately prior to the pandemic, and the Kids Life and Times Survey and Young Life and Times Survey 2020/21 and 2022 were able to capture crucial cross-sectional insights. However, consistent longitudinal data collection over a wide age range would allow better tracking of outcomes at times of future crisis. Studies also recommended improved screening post-pandemic to identify the needs of groups who had been particularly vulnerable to difficulties during lockdowns.

Investing in mental health support

The general rising trend of mental health difficulties in children and young people was already of concern before the pandemic. While the evidence shows a mixed picture with regard to the additional impact of lockdowns on this general trend, concerns about the availability of mental health support remain. Many studies recommended investment in and commitment to a public health approach to supporting children and young people's mental health, including the promotion of healthy ways of coping with life challenges, more consistent preventative and early intervention support in schools and the community, improved signposting, and improved access to specialist mental health support including for specific groups such as autistic young people. Given the associations between children and parents' mental health, many advocated for systemic approaches involving the family, and for support for parents and carers.

Learning for future pandemics and emergencies

Prioritise children and young people's wellbeing in decision-making about restrictions

Decisions about the benefits of school closures and other restrictions in preventing the spread of future viruses should be made in the context of available evidence about the long-term harms on children and young people's health, wellbeing and education. Specifically, the closure of schools and other settings should only be used as a measure of last resort, and for the shortest time possible.

Ensure adequate mitigations are in place to safeguard and support children during times of restriction

If school closures have to be put in place at any future time, all efforts should be put in place to minimise adverse effects on the short-, medium- or longer-term safety,

development, health and wellbeing of children and young people. This includes a focus on groups with particular needs and vulnerabilities in the context of lockdown including children and young people at risk of safeguarding concerns, those who need physical or mental healthcare and respite services, those separated from their families, those particularly at risk of social isolation or becoming less physically active. Many of the negative impacts of lockdown occurred within days and weeks of restrictions coming into force and so mitigations should be introduced simultaneously with restrictions rather than delaying.

Provide high quality information to children, young people and parents and carers

Studies indicated the need for reliable, trusted information for children, young people and families across a broad range of topics, to address some of the confusions and uncertainties that may have stopped families from seeking the help they needed, and to promote healthy lifestyles and coping strategies at times of stress, particularly around sleep, routines, physical activity and screen time. Young people also wanted more consistent and clear information about exams, grades and their future. A number of studies also prioritised the promotion of messages promoting self-efficacy and positivity to support children and young people in managing and living with uncertainty.

Provide consistent support for remote learning and catch-up

The relationship between home and school was critical during the pandemic and across the UK there was evidence of inconsistencies in support, particularly during the first lockdown, leading multiple studies to advocate for consistent national guidance in any future lockdowns to support schools communicate with students and parents, and provide active learning support, including that tailored to children with special educational needs, whether in mainstream or special schools. This should also include communication with the wider school community such as classroom assistants and allied health professionals. Catch-up support should be prioritised for those at risk of falling behind with their learning.

Address financial and practical concerns

Given the pre-existing challenges for disadvantaged families, and the clear evidence that pandemic-related disruptions and hardships put children and young people at additional risk, many studies reiterated the value of measures to address and maintain food security and wider household income, reduce housing instability and economic hardship. Tackling digital disadvantage was of critical importance in addressing disparities in children and young people's engagement with home schooling and their ability to socialise during lockdowns.

Listen to children and young people

Children and young people who took part in qualitative studies had many practical suggestions about how policy development and decision-making could be improved in the pandemic and in the future. The importance of listening to their ideas at a group level was mirrored by calls to improve opportunities for children and young people to have a say in their own lives. Their experiences of the pandemic were so diverse that

group-level recommendations risk missing the nuance of their individual needs. Many studies called for increased vigilance from families, schools, communities and the children's workforce to listen carefully to children and identify and address their needs.

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1. Introduction

The Covid-19 pandemic brought unprecedented and profound change into the lives of children and adults across Northern Ireland and the globe. While the virus itself wrought havoc on families, communities, public life and services, the restrictions brought in to control its spread had broad and deep impacts for everyone. These were layered on significant pre-pandemic strategic challenges for the health and social care system in Northern Ireland including increased demand, lengthening and growing waiting lists, and workforce pressures.

For policy makers and service providers, understanding what these impacts meant for children and young people was crucial during the acute phases of the pandemic and the recovery period. This remains crucial today, both to inform approaches to remediate long term impacts of the restrictions, and to prepare for future pandemics or other emergency situations. Therefore, a review was carried out in two phases: a rapid rolling review of the emerging evidence, carried out by the Public Health Agency (PHA) during the period of the pandemic, and a synthesis of evidence included in subsequent systematic reviews, commissioned by the PHA from the National Children's Bureau (NCB) in 2025, the findings of which are outlined in this report.

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Methodology

Methodology for original synthesis of evidence

A rapid rolling review of the emerging evidence on the impact of Covid-19 restrictions on children and young people was carried out by the Public Health Agency (PHA) during the period of the pandemic. The purpose of the review was to inform the work of the Joint Health-Education Oversight Group (JHEOG) which was established as a means to ensure effective integrated planning for vulnerable children and their families throughout the pandemic. The Group was chaired by the PHA until December 2021 when the role was taken on by the Department of Education (DE). The Group contained representation from senior staff from the PHA, the Department of Health (DoH) including the Strategic

Performance and Planning Group (SPPG, formerly the Health and Social Care Board), and the Education Authority.

The review was started on December 2020 and continued until December 2021. The review was subsequently updated in June 2024, and at this point included 73 sources of evidence including surveys, reports, and research publications in academic journals, by third sector bodies, in the media, and by statutory bodies both in Northern Ireland and elsewhere, during and after the pandemic itself.

An iterative approach was taken to identifying sources. This included using PHA daily media updates and ongoing media monitoring to identify new information appearing in the public domain. In addition, a rapid search was conducted weekly or fortnightly ahead of JHEOG meetings to ensure that the summary remained current. Sources were quality appraised by a designated member of the group, drawing on their knowledge of critical appraisal principles and applying rapid judgement, but without rigid inclusion or exclusion criteria or consistent methodological rigour due to the circumstances. Brief details (title, link and month of publication) were extracted into a table and a short summary was prepared for each document or source. Key themes were identified and extracted into a list. As new documents were added to the synthesis, they were reviewed for key themes and any new themes were added to the list. Regular updates were provided to the JHEOG, both verbally during initially weekly and later fortnightly meetings, and through sharing of the updated summary of evidence following each update. This process supported the Group in staying informed of the rapidly evolving evidence base and contributed to their ongoing understanding, learning, and decision-making in relation to policy, services, and practice affecting children and young people.

Methodology for NCB update of evidence

Test searches were carried out to scope the literature and inform the methodology. Parameters for reviewing and updating the evidence were set out in a protocol. This detailed the inclusion and exclusion criteria, search strategy, data to extract and quality appraisal plans. Inclusion and exclusion criteria were developed in discussion between PHA and NCB to ensure included studies would be selected through a rigorous process and describe a breadth of impacts on children and young people. To balance rigour, comprehensiveness and relevance, a decision was made to search for relevant systematic reviews and to hand search these for included primary studies that had been carried out in the UK or Ireland. This methodology was chosen for three reasons: it was a way of rigorously managing the very large volume of literature published by 2025; the systematic reviews had themselves appraised the quality of their included studies; and it ensured relevance to the Northern Ireland context.

Search terms were generated for Ovid MEDLINE All using a combination of subject headings (MESH terms) and free text terms and adapted for ASSIA and PsycInfo. Searches were run in these three databases on 19 April 2025. Search results were exported into a reference management tool (Endnote) and de-duplicated. For a full search strategy, see appendix 1.

Combined results were exported into an online systematic review tool (Covidence). Titles and abstracts were independently screened against inclusion and exclusion criteria by two reviewers with conflicts resolved through discussion and referral to a PHA colleague for a final decision if needed.

The full text was retrieved for the remaining systematic review articles. These were divided between a team of three for full text review against the inclusion/exclusion criteria: uncertainties and dilemmas were resolved in discussion across the team. This review involved a check of the studies included in each systematic review to ensure that these included at least one primary study carried out on children or young people in the UK or Ireland, to ensure sufficient relevance to the Northern Ireland context. If the systematic review included 40 or fewer primary studies from the UK and Ireland, these primary studies were retrieved: for those with more than 40 studies from the UK and Ireland, the synthesis provided by the systematic review sufficed. Studies identified through the initial PHA review were checked and updated versions were retrieved. These searches were supplemented by (1) a hand search of the websites of longitudinal studies of representative samples of UK children and young people for additional primary studies. This included the Kids Life and Times Survey, Young Life and Times Survey, Understanding Society and the Children's Society household survey (2) a hand search of government websites and the Northern Ireland Statistics and Research Agency website for administrative data relating to Northern Ireland children and young people.

Data were extracted into a table for each systematic review and the relevant primary studies it included, and for additional primary studies. For primary studies this included the sample size, age of children and young people, country in which it was carried out, outcomes of relevance, month and year in which data were collected, systematic reviews in which it appeared and recommendations for policy and practice. As the systematic reviews had appraised the quality of primary studies, summaries of these appraisals were included to support rigour.

The main findings of systematic reviews and primary studies were extracted, initially under the list of key themes identified in the original PHA synthesis described above, with additional themes identified where necessary. These were then re-ordered to structure this report. For a PRISMA diagram, see appendix 2. This methodology enabled us to identify a range of evidence across a wide range of impacts on children and young people in the time available, with due weight given to the relevance of this evidence to the Northern Ireland context. These searches resulted in 101 systematic reviews, and a total of 221 primary studies. 48 of these reported on studies of representative samples, 114 on convenience samples, 56 of administrative, health or education records, and 2 on mixed sample types. Summary details of the primary studies included can be found at appendix 3.

A note on the evidence

This report provides a rapid summary of evidence on children and young people's experiences of the pandemic, with particular reference to the public health measures and restrictions that were in place to reduce the spread of the Covid-19 virus. It is based

on a very wide range of evidence sources, intended to provide an overall picture of the impact of the pandemic on children and young people. These sources differ in their methods and quality, and in what they add to what we know. This includes

- Quantitative and qualitative approaches, giving insights into children and young people's own accounts of their experiences alongside numerical data
- Studies based on children's own reports of their experiences, and those based on the reports of their parents (and in a small number of studies, the reports of those working with them). Adults living with younger children were one of the groups that experienced the greatest deterioration in mental health during the early part of the pandemic (Pierce et al., 2020) which might influence how they perceive and report their children's difficulties. However, some studies have found that patterns of young people's self-reported mental health are consistent with their parent/carer's reports (Shum et al., 2020)
- Studies based on samples gathered in different ways, including convenience samples, and representative samples, where the findings can be more reliably generalised to the whole population
- Studies that have been peer-reviewed and published in academic journals, and studies that involved rapid gathering and publishing of evidence to inform decision-making, particularly early in the pandemic
- Studies that are:
 - Longitudinal, collecting data from the same individuals at two or more time points, to track individual changes over time
 - Repeated cross-sectional, collecting data from different individuals within the same population at two or more time points, to track population-level changes
 - Cross sectional, collecting data from individuals at one time point, which may include asking individuals to recall their prior experiences

In this summary, we have focused on the evidence that is most relevant to the Northern Ireland context, by selecting systematic reviews that included at least one primary study carried out in the UK or Ireland, primary studies based in these countries, and administrative and other data specific to Northern Ireland, where available. Findings from these studies were extracted into themes, and these are illustrated by the studies referenced directly throughout the sections of this report. Despite the rigour of the search strategies, some primary studies may not have been found, particularly if they did not appear in a systematic review.

As the context of lockdowns varied so much over time, it may be helpful to read the summary alongside a timeline, which can be found in appendix 4.

Terminology

The studies included used a wide range of terms to describe the identities and experiences of the children and young people they included. There are mixed views about the use of person-first and identity-first descriptors. Throughout this report we use a range of terms, largely reflecting those used in the source studies that we are

including. When describing disability, we use the phrase 'disabled children and those with special educational needs' where possible, to reflect the social model of disability.

The age ranges of the included studies varied widely. We have used 'children' to refer to samples that include those broadly up to the age of 12, and young people to refer to samples that include those broadly from 13 upwards. 'Children and young people' indicates a sample that straddled these broad age ranges.

Structure of this report

The key thematic areas identified are children and young people's overall feelings about the pandemic and its impact on their lives; the consequences for their relationships and sense of loneliness and social isolation; their mental health and wellbeing; their education, learning and development; activities and sleep; physical health; financial and wider family impacts and safeguarding. These sections which follow describe the findings from the evidence within each of these key themes, focusing first on the main effects for children and young people overall. The final section explores the degree to which the pandemic had different and specific impacts on groups of children and young people including those with disabilities and/or special educational needs, those with socio-economic disadvantage and other individual, family and social characteristics and experiences. Each chapter ends with a summary paragraph. The report concludes with a summary of the types of recommendations made by the included studies.

2. Overall feelings about the pandemic

"At the start it was good but I start to miss my friends and my teacher a lot."

(Playboard NI, 2020)

This section explores children and young people's feelings about the pandemic in the early months of lockdown, over the summer of 2020, and into 2021.

Early weeks

Children and young people experienced difficult feelings in the early weeks of the pandemic including anger, frustration, nervousness, sadness, boredom, confusion, worries about the virus and the future. In April 2020, nearly all young people in one study reported feeling anxiety, worry and uncertainty related to lockdown, going outside, and the future (Dewa et al., 2021). The changes put in place by the efforts to control the virus affected multiple aspects of children and young people's lives. A survey carried out by the Children's Society between April and June 2020 found that the changes that 10-17-year-olds felt they were coping with least well were not being able to see friends (37%) and family (30%) (Figure 1).

The survey also found that at this point, 89% were worried to some degree about the virus. The main ways in which they felt the pandemic had changed their thoughts or feelings about the future related to the implications of lockdown for their future education. They also had wider concerns about society and the impact on health, generally mental health, in the longer term (Children's Society, 2020a).

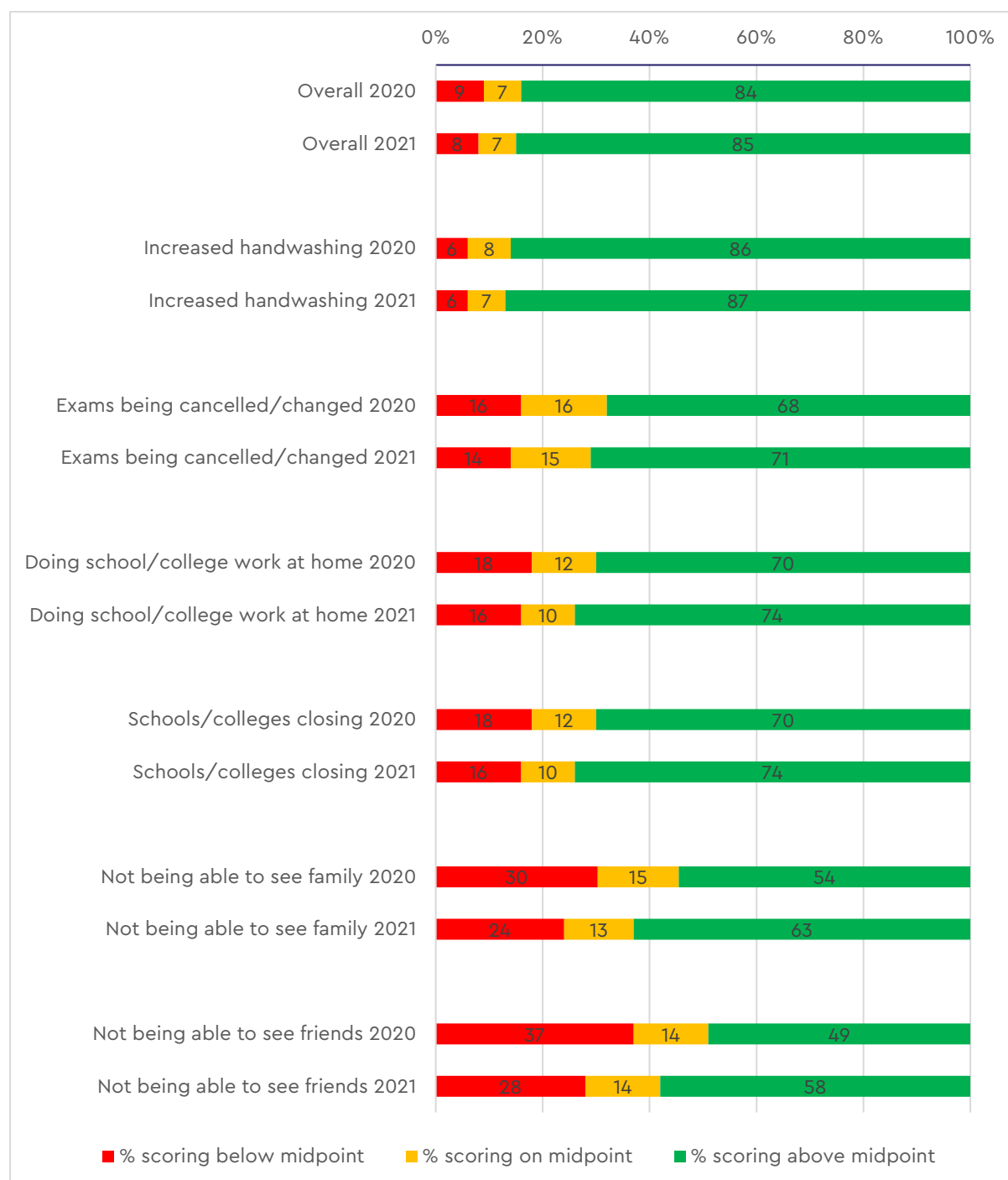
While most comments were negative, a subset of comments focused on feeling more appreciative and grateful for aspects of their life as a result of the pandemic (Children's Society, 2020a). Children aged 8-11 years in Wales surveyed between April and June 2020 reported greater happiness with life than their peers a year earlier (James et al., 2021). Young people who said their mood had improved during the lockdown often related this to feeling less busy and having more time to relax, reflect and gain perspective on life (Dewa et al., 2021).

Across the summer of 2020

Across the summer of 2020, over 60% of surveyed 5-18-year-olds in Northern Ireland (n = 280) reported feelings of sadness during lockdown and over 50% reported feelings of frustration, upset and worry (Playboard NI, 2020). Parents of children aged 5-11 reported that their children were more bored (74%), lonely (65%) and frustrated (61%) than before the pandemic, with more than 30% of the caregivers also reporting that their children were showing more irritability, restlessness, worry, anger and anxiety, and were more likely to argue with the rest of the family (Morgul et al., 2020).

Figure 1

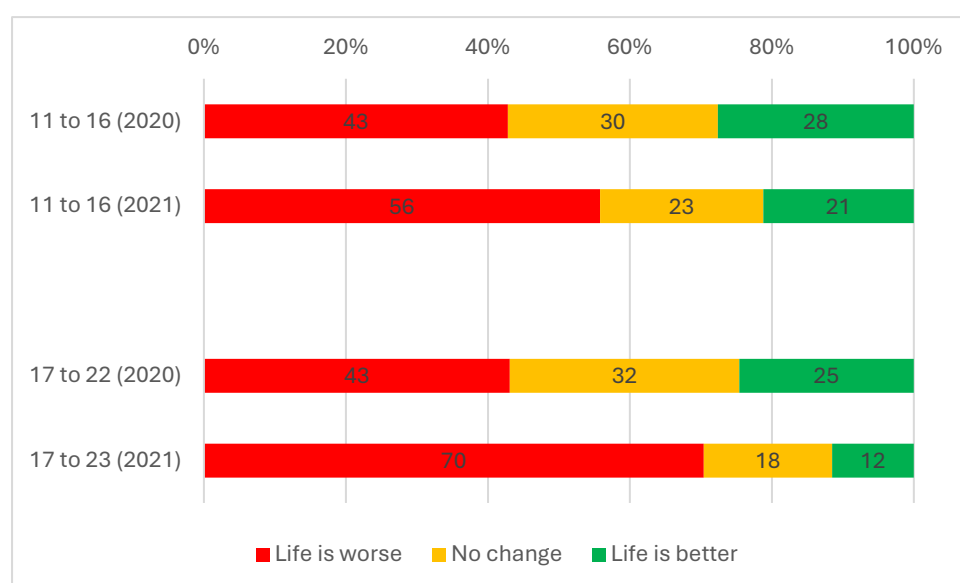
Extent to which children (aged 10 to 17) feel they are coping with Coronavirus changes in April-June 2020 (n = 1,615 to 1,734) and April-June 2021 (n = approx. 2,000). Source: Children's Society (2020, 2021)



Among a representative sample of 11-16-year-olds in England, the largest group felt that overall, the first lockdown had made their life worse (43%), with the same proportion of 17-22-year-olds reporting this (Figure 2). The responses varied by mental health status: those children and young people whose responses to the Strengths and Difficulties questionnaire indicated that they probably had a mental disorder were more likely to say that lockdown had made their life worse than those unlikely to have a mental disorder, with the differences greater for those reporting that life had been 'much' worse under lockdown (Vizard et al., 2020).

Figure 21:

Young people's views about the impact of the first lockdown (2020) and restrictions (2021) on their life in the Mental Health of Children and Young People in England survey . Source: Vizard et al., 2020; Newlove-Delgado et al., 2021



Comparing the experiences of children and young people who said their mental wellbeing had improved over lockdown with those that said it had stayed the same or got worse, a higher proportion of the 'improved' group reported that their relationships with friends and family had also improved over lockdown, and that they were experiencing less loneliness, exclusion, better management of school tasks, and more sleep and exercise (Soneson et al., 2023).

Into 2021

By January/February 2021, the majority of young people in a survey reported that they were finding the current lockdown harder to deal with than previous ones (Young Minds, 2021), and this is also reflected in the increased proportions of 11-16 and older young people in the 2021 Mental Health of Children and Young People in England (MHCYP) survey who reported that restrictions had made their life worse, compared to the previous year (Figure 2). One in ten (10%) children unlikely to have a mental disorder said restrictions had made their lives much worse, compared with over a quarter (27%) of children with a probable mental disorder. Patterns were similar among 17-23-year-olds,

who were overall more likely than 11-16-year-olds to report being negatively affected by the restrictions (Newlove-Delgado et al., 2021).

Some young people described feeling caught in a loop of initial optimism, loss of hope, encouragement at events such as vaccine roll-out, but worry at further restrictions (Pearcey et al., 2023). Although the most prominent worry among 7-17-year-olds was about catching the virus, concerns about financial security, including parents' jobs and household incomes were also common (Goudie and McIntyre, 2021).

Life satisfaction in February-April 2021 was lower in a large sample of English 11-15-year-olds exposed to the pandemic, compared to their pre-pandemic peers (Mansfield et al., 2022). In April-June 2021, 85% of 10-17-year-olds in the Children's Society's UK-wide representative survey scored 5 or more out of 10 for how well they thought they had coped overall with Coronavirus changes. Comparing figures with the previous year (Figure 1), the proportion of young people who were coping badly with not seeing friends and family had fallen, likely in response to the lower levels of restriction (Children's Society, 2021).

Later on, among 17-18-year-olds in England in October to December 2022, around a third of young people (31%) said that the pandemic was still having a negative impact on their mental wellbeing, while 13% reported continued negative impacts on their physical wellbeing and 23% said it was still having a negative impact on their social life (Holt-White et al., 2023).

Summary

Children and young people experienced a range of difficult feelings, which changed over the course of the pandemic. Many had anxieties about the virus, their family situation, the impact on their education and about the future. Being apart from friends and family were among the most difficult challenges. Some children and young people reported positive experiences alongside the challenges and restrictions, in the areas of improved relationships and better management of school tasks and routines. The second full lockdown was more difficult for many, and as late as the autumn of 2022, some young people felt that the pandemic was continuing to affect their mental and physical wellbeing and social life.

3. Relationships, loneliness and social isolation

As described above, not being able to see family and friends were among the most difficult aspects of the pandemic for children and young people. This section explores these aspects of their lives, with a focus on loneliness, relationships, routines and activities.

Loneliness and social isolation

"I miss seeing all my friends and lockdown is boring." (Young person in Playboard NI, 2020)

Children and young people missed their wider family, including non-resident parents and grandparents. While technology helped young people to stay in touch, not all family members were familiar with this, and communicating remotely didn't feel the same (Ashworth et al., 2021; Pearcey et al., 2023). Younger children were less able to keep in touch spontaneously through digital communications (O'Sullivan et al., 2021)

Young people felt out of touch with their friends, peers and partners, and their usual networks. Feelings of social isolation, missing friends and missing out were frustrating and upsetting (Ashworth et al., 2023; Gennings et al., 2022; Pearcey et al., 2023) with some young people describing their bedroom as a particularly lonely place (Sawyer et al., 2022). It was harder to keep up with activities that had previously been done socially, such as exercise (O'Kane et al., 2021).

Pre-school (Pascal and Bertram, 2021) and primary school children (O'Sullivan et al., 2021) described missing their friends and wanting to be with them. Parents also described younger children's social isolation, with 65% of parents reporting their 5-11-year-old was lonelier in July/August 2020 than before the pandemic (Morgul et al., 2020). The vast majority (91%) of 5-18-year-olds said 'meeting up with friends' was among the things they missed most about school during the first lockdown (Playboard NI, 2020).

Multiple reviews of international studies showed that children and young people were lonelier during than before the pandemic (Farrell et al., 2023; Kauhanen et al., 2023; Magis-Weinberg et al., 2025). However, as with so many aspects of children and young people's experiences over the course of the pandemic, changes in loneliness did vary. In a large sample of 8-18-year-olds in England, 34% reported feeling lonelier in lockdown, 38% reported no change, and 28% reported feeling less lonely (Soneson et al., 2023).

In July 2020, most children and young people in a representative sample in England reported that they did have support from others. However, among 5-16-year-olds, 12% felt that they did not have a friend, 13% felt that they did not have a supportive adult at school, and 10% felt there was no family member outside the home that they could turn to for support. For young adults, aged 17 to 22 years, these were 7%, 18% and 15% respectively (Vizard et al., 2020).

Two thirds (68%) of 10-11-year-olds and 84% of 16-year-olds in Northern Ireland said they could talk to and contact friends as much as they wanted to during lockdown (with 18% / 10% disagreeing or strongly disagreeing) (ARK, 2021a and b).

Loneliness among young people (16-24) in the UK rose during periods of lockdown and fell again during periods of less restriction, returning to pre-pandemic levels by September 2021. These fluctuations were more pronounced for females than males, but were similar for young people across higher and lower social backgrounds (Kung et al., 2023).

Quality of relationships

"I got more time with my mum & sister, we got to learn new things, plant vegetables we had fun."

(Playboard NI, 2020)

Some young people experienced positives of spending more time with family, appreciating these relationships more and noting improvements including a reduction in arguments (Ashworth et al., 2022; Dewa et al., 2021; McKinlay et al., 2022; Pearcey et al., 2023). However, others felt trapped with no escape or outlet for frustrations, leading to increased arguments, irritability and distress (Pearcey et al., 2023). Children aged 8-11 years in Wales surveyed in the spring reported greater family wellbeing than their peers a year earlier (James et al., 2021). Overall, in a large sample of 8-18-year-olds in England, 33% reported that their family relationships had improved over lockdown, while 47% had stayed the same and 20% had got worse (Soneson et al., 2023). On average, there were no large changes in family connectedness among Year 9 students between October 2019 and April/May 2020 (Widnall et al., 2020).

In terms of friendships, among 8-18-year-olds in England, 31% reported that these had got better over lockdown, 53% had stayed the same and 16% had got worse (Soneson et al., 2023). On average, there were no large changes in feelings of peer connectedness among Year 9 students between October 2019 and April/May 2020, suggesting that these young people had been able to sustain their friendships when unable to meet in person (Widnall et al., 2020). For some young people, the pandemic presented opportunities to reflect on friendships, including starting, changing and ending friendships over time (Widnall et al., 2022). Some young people worried about what they would talk about after a long period of lockdown, and tensions emerged in some friendships and relationships, particularly when young people disagreed about what was socially acceptable during social distancing (McKinlay et al., 2022).

Routines and activities

Young people described feelings of boredom during lockdown (Gennings et al., 2022) and some struggled with a lack of routine and structure (O'Sullivan et al., 2021). Children and young people's usual activities such as lunchtime clubs, bands, sports in and out of school, youth groups and badged organisations were severely curtailed, impacting on

their levels of activity, self-fulfilment and socialising (Ashworth et al., 2021; Saini et al., 2023).

However, for some young people, the enforced pause in activities and commitments was a benefit (McKinlay et al., 2022). Some liked having more free time to do things they chose and enjoyed such as gaming, playing with siblings and watching TV, or opportunities to learn new skills and hobbies (Ashworth et al., 2021; Pearcey et al., 2024). Even when lockdowns eased and children and young people returned to school, not all previous extra-curricular activities started up (ARK 2021 a and b).

Summary

Loneliness was a major problem for many children and young people who missed their friends and wider family. Younger children were less able to organise their social life, while older young people missed the peer relationships of increasing significance. Not all children and young people felt lonelier however, and digital means of keeping in touch were important, with the majority of children and young people in Northern Ireland saying they could talk to friends as much as they wanted during lockdown. Unsurprisingly, patterns of loneliness tracked the extent of restrictions. Many children and young people enjoyed spending more quality time with their families, and talked about shared activities and closeness, while others reported that their family relationships had worsened under the strain of being locked down together. The largest group of children and young people reported that their friendships had got neither better nor worse, but others reported positive or negative changes. Routines changed profoundly at times of lockdown, with children and young people missing their previous activities but some reporting enjoying having more time to devote to hobbies and interests.

4. Mental health and wellbeing

This section explores children and young people's own views about their overall mental health and wellbeing, before exploring trends in overall difficulties and distress prior to and into the pandemic in Northern Ireland, England and the whole of the UK. It then explores change in levels of specific difficulties including anxiety, depression and externalising difficulties, and examines evidence on use of healthcare services for mental health concerns during the pandemic.

Overall subjective mental health and wellbeing

'A lot of people I know have struggled with their mental health during this all and have been denied help or guidance to get through it. Personally, I used the lockdown to work on myself physically and mentally and so my mental health got slightly better but is still not the best.' (Young person in Lloyd, 2021).

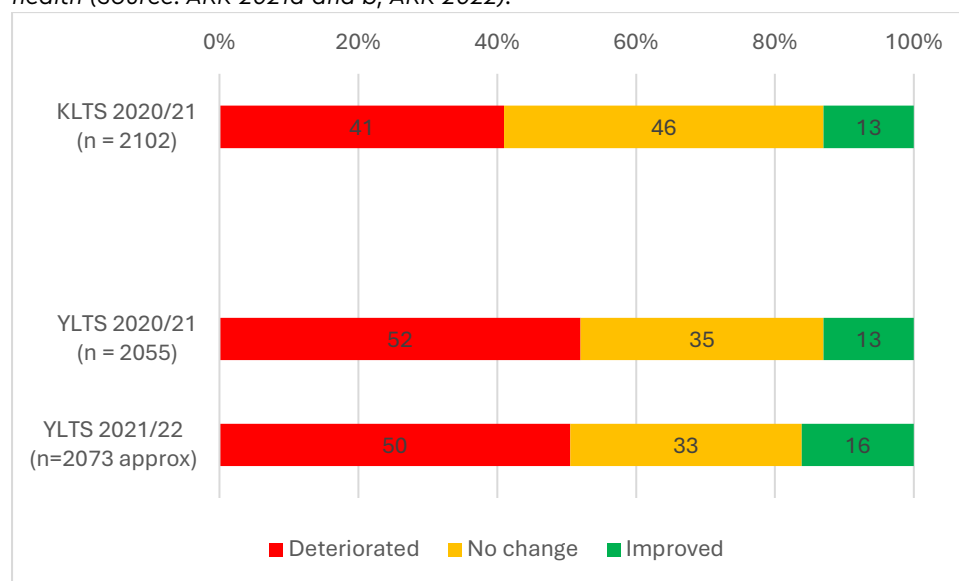
Each year, the Children's Society explores the subjective wellbeing of around 2,000 children and young people to inform its Good Childhood Report. The general pre-pandemic trend in England was for overall life satisfaction to decline from 2010/11, with around 11% of young people reporting low wellbeing in 2018 and 2019. Direct comparisons with later years should be made with caution as data collection methods changed in 2020, including a move to collecting UK-wide data; however, in April to June that year, 18% of 10-17-year-olds reported low wellbeing. This improved in 2021 (12%) and was maintained in 2022 (11%) (Children's Society, 2020b, 2021, 2022).

As experiences of the pandemic were so varied, it is not surprising that children's subjective well-being also differed. Figure 3 summarises the views of 10-11- and 16-year-olds in Northern Ireland who took part in the Kids Life and Times (KLTS) and Young Life and Times (YLTS) surveys in 2020/21 and 2022. In 2020/21, both age groups were asked about the impact of lockdown on their mental and emotional health and a year later, the next cohort of 16-year-olds were asked the same question. Response options were slightly different year-on-year, and so have been phrased here as deteriorated/no change/improved.

In 2020/21, the same proportion in each age group (13%) felt that this aspect of their life had got better during the pandemic, while a higher proportion of the older age group felt that this had got worse (52% vs 41%) (ARK 2021 a and b). A year on, a similar proportion of 16-year-olds reflected that this had worsened during lockdown, but a slightly higher proportion than the previous year felt it had improved (16% vs 13%) (ARK 2022).

Figure 3

Children (KLTS) and young people's (YLTS) views on the impact of lockdown on their mental and emotional health (Source: ARK 2021a and b; ARK 2022).



In their open responses to the 2020/21 YLTS, young people identified a number of factors that they believed impacted their mental health during the pandemic. These included a lack of availability of mental health services for their age group due to long waiting lists, limited numbers of practitioners providing direct services, and the difficulty of receiving services at a convenient location. They also described the challenges of social isolation and loneliness, the lack of opportunities to socialise with friends and peers, their anxiety, exam stress, and resultant uncertainty about their future (Lloyd et al., 2023).

Experiences were mixed in England too: in June/July 2020, a sample of almost 17,000 8-18-year-olds were almost evenly split between those that said their general mental well-being had improved (33%), stayed the same (33%) or got worse (34%) during the first lockdown (Soneson et al., 2023).

Trends in total mental health difficulties: before and into lockdown

As with the trend in wellbeing described above, there was a general trend of increasing mental health difficulties among children and young people in the years leading up to the pandemic (Kuhn et al., 2022; Pierce et al., 2025). In England, between 2004 and 2017, this was largely due to an increase in emotional disorders (Sadler et al., 2018).

Patterns of findings from international individual studies suggest an increase in scores of total mental health difficulties or global severity of psychological distress from before to during the pandemic (Kauhanen et al., 2023; Newlove-Delgado, 2023). Viner et al., (2022) found that representative and large convenience studies from high income countries during the first lockdown showed higher proportions of young people scoring above thresholds for risk of psychological difficulties than before Covid-19. They note

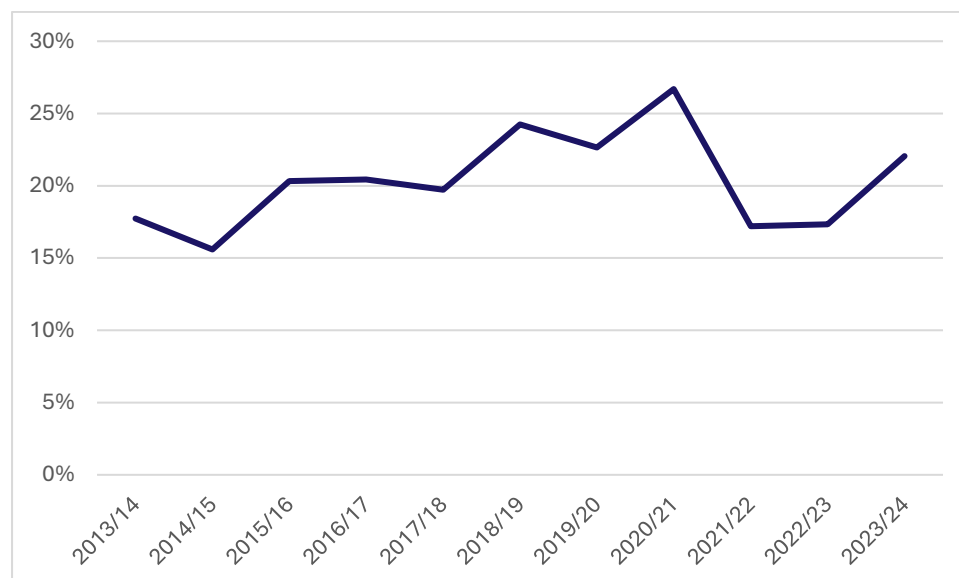
that while these convenience samples are likely to inflate estimates of distress, the findings were largely consistent. There were suggestions that the association was greater where lockdown was more prolonged.

Northern Ireland data

Several representative surveys use the General Health Questionnaire 12 (GHQ-12) to measure mental distress in young people aged 16 and over: a 'high' score of 4 or more indicates the presence of minor psychiatric problems. The annual Health Survey Northern Ireland found that before the pandemic, a rising proportion of 16-24-year-olds had a high GHQ-12 score, with 14% in 2010/11 which had risen to 23% in 2019/20. In 2020/21 (with data collected between June 2020 and March 2021), this rose to 27%, falling back to 17% in the following year (Department of Health, 2025), as seen in figure 4.

Figure 4:

Percentage of 16-24-year-olds in Northern Ireland with high GHQ12 score which could indicate a mental health problem. (Source, Dept of Health, 2025)



Looking at the narrower age range of 16-year-olds, the representative Young Life and Times Survey 2020/21 found that 45% had a high GHQ-12 score in May 2021, made up of 31% of boys and 56% of girls. Their mean score was 14.33. The previous time the survey was run, in 2013, 29% of 16-year-olds had a high score, with a mean score of 11.68 (ARK, 2021b).

UK-wide data

The longitudinal Understanding Society survey uses the Strengths and Difficulties questionnaire (SDQ) to measure young people's mental health difficulties in a representative sample across the UK. Mental health of 5-8-year-olds is reported by their parents, while 10-15-year-olds report for themselves.

Descriptions of the trends in 10-15-year-olds' reports of their total difficulties differ slightly depending on the survey waves analysed, and the methods used. Kuhn et al.

(2022) note that these young people's self-reported mental health had been slowly deteriorating since 2011 and described a levelling off (i.e. no further deterioration) between 2019/20, July 2020 and September 2020. Metherell et al. (2021) observed that symptoms of total difficulties increased (deteriorated) between 2017-19 and July 2020, peaking in November 2020. Both studies agree that the level of young people's difficulties decreased slightly (i.e. their mental health improved slightly) in early 2021.

Difficulties fluctuated more for 5-8-year-olds (reported by their parents) over different waves of the survey. They have also seen a decline in mental health over the last decade, with the biggest decline happening between the year before the pandemic and July 2020. Their difficulties scores remained elevated throughout 2020 and into the beginning of 2021 (Miall et al., 2023; Kuhn et al., 2021).

For the older age group of 16-19-year-olds, Understanding Society uses the GHQ-12 described above. Mean GHQ-12 scores increased steadily (indicating a decline in mental health) over the decade leading up to the pandemic, with a clear increase between 2019/20 and April 2020. This was followed by fluctuations over the pandemic, with some improvement over the summer of 2020, a decline in the autumn of 2020 and some evidence of further improvement in 2021 (Kuhn et al, 2021).

Looking at wider age groups within Understanding Society, there was a sizeable deterioration in mental health across ages from before the pandemic to April 2020, with this being particularly large for the 16-24 (youngest) age group (Banks and Xu, 2020). Their patterns of mental health difficulties clearly tracked the extent of lockdown restrictions, worsening at times of stricter lockdown and improving as these eased (Webster et al., 2024).

England data

In England, the representative Mental Health of Children and Young People (MHCYP) surveys found an increase in the prevalence of probable mental disorder in 5-16-year-olds from 11% in 2017 to 16% in 2020, with a significant increase seen across boys and girls (Vizard et al., 2020). This rise was maintained in the subsequent 2021 survey nine months later (Newlove-Delgado et al., 2021).

The 2021 survey looked in more detail at changes in mental health for individual children and young people over time, finding that 39% of those aged 6-16 years in 2021 had experienced deterioration in their mental health since 2017, and 22% had experienced an improvement. For older young people (aged 17 to 23 years in 2021), over half (53%) experienced deterioration in their mental health between 2017 and 2021. About three in ten (32%) young people experienced no change and 15% saw an improvement (Newlove-Delgado et al., 2021).

A different representative study found that 44% of 16-17-year-olds had a high GHQ-12 score in September 2021-April 2022 (Holt-White et al., 2022), a similar proportion to that found among 16-year-olds in Northern Ireland in May 2021 (ARK 2021b).

In a convenience sample of 12-18-year-olds in London (>80% minority ethnic groups, 25% eligible for free school meals (FSM) (a proxy for low family income), there was no

evidence of an increase in the prevalence of mental health problems, nor of mean SDQ scores between pre-pandemic and May-August 2020, nor in change in distress within individual young people (Knowles et al., 2022).

However, the longitudinal Co-SPACE study tracked how UK children and young people's behavioural, emotional and attentional difficulties changed on average over the course of the pandemic. Although not representative, the study involved up to 9,180 children and young people and provides useful insights into patterns over time. Parents/carers reported the highest level of behavioural, emotional and attentional difficulties in their children in June 2020 and February 2021, when restrictions were highest (Shum et al., 2021). Successive reports have shared greater detail.

- **March to May 2020:** particular deteriorations in mental health symptoms over a month during early lockdown among younger children (4-10) which translated to a 10% increase in those meeting the criteria for a possible/probable emotional disorder, a 20% increase in hyperactivity/inattention disorder, and a 35% increase in conduct problems. In contrast, changes among adolescents were smaller with a small reduction in emotional symptoms (Waite et al., 2021).
- **February to April 2021:** behavioural, emotional and attentional difficulties decreased as Covid-19 related restrictions eased.
- **April to June 2021:** difficulties remained relatively stable (Skripkauskalte et al., 2021)
- **July 2021 to March 2022:** behavioural and attentional difficulties remained stable but emotional difficulties increased (Burgess et al., 2022).
- **March 2022 to October 2022:** behavioural and emotional problems decreased on average while attentional difficulties remained stable (Ding et al., 2022).
- **October 2022 to April 2023:** emotional difficulty scores increased while behavioural and attentional difficulties remained stable (Oakes et al., 2023).

Trends in more specific difficulties

This section looks at more specific difficulties, including internalising and externalising symptoms and particular aspects of mental health.

To provide some context on the immediate pre-pandemic rates of children and young people's mental health difficulties in Northern Ireland, table 5 presents key findings from the Northern Ireland Youth Wellbeing Survey (NIYWS), carried out in a representative sample of 2-19-year-olds. Data were collected between June 2019 and mid 2020 (closing the week before lockdown).

The figures for mood or anxiety disorder (11.5%) have been compared with the 8.1% of emotional disorders among 5-19-year-olds in England in 2017 (Sadler et al., 2018) to suggest that rates of these disorders are around 25% higher in Northern Ireland than in England, in line with differences in the adult populations (Bunting et al., 2022). However, the two studies differed in the age range of children, the measures used to screen for difficulties, and the year that data were collected, meaning that caution is needed in making these comparisons.

Table 1

Prevalence of common mental health difficulties among children and young people in Northern Ireland, June 2019-March 2020. Source: Bunting et al., 2020; Bunting et al., 2022

Mental health difficulty		Estimated prevalence (%)
Difficulties measured in children and young people aged 2-19		
Emotional problems		11.9
Conduct problems		9.9
Peer problems		3.4
Pro-social problems		4.7
Hyperactivity		14.7
Oppositional defiant disorder		9.9
Conduct disorder		5.5
Mood or anxiety disorder		11.5
	Panic disorder	6.8
	Separation anxiety disorder	5.2
	Major depressive disorder	5.0
	Social phobia	3.8
	Obsessive compulsive disorder	3.1
	Generalised anxiety disorder	2.7
Difficulties measured in young people aged 11-19		
Stress related disorder		4.9
	Post-traumatic stress disorder (PTSD)	1.5
	Complex PTSD	3.4
Disordered eating and associated behaviours		16.2
Self-injury		9.4
Suicidal thoughts or behaviours		12.1
Problematic social media use		4.7

Internalising symptoms

An umbrella review of international studies found evidence of an increase in children's own reports of internalising symptoms (emotional problems) over the course of the pandemic, but a parallel review did not find evidence of such change in parents' reports

of younger children's symptoms. Findings were mixed across studies (Newlove-Delgado et al., 2023). Studies from the UK show evidence of

- **Deterioration.** Among a representative sample of 10–16-year-olds in England with pre-pandemic data and results in July 2020, the proportion of young people having low or no emotional problems decreased, while the proportion of those reporting high levels of prosocial tendencies dropped, suggesting a worsening of mental health during the pandemic (Hu and Qian, 2021). Among a younger representative sample in Wales, the percentage of 10-11-year-olds reporting elevated emotional difficulties rose from 17% in 2019 to 27% in 2021 (Moore et al., 2022).
- **No change.** A convenience sample of self-reporting 7-11-year-olds did not find differences between emotional difficulty scores in April-June 2020 with 18 months earlier (Bignardi et al., 2020).

Anxiety is one of the most widely investigated mental health outcomes across studies carried out during the pandemic (Bevilacqua et al., 2023; Newlove-Delgado et al., 2023). Umbrella reviews of international studies which reported data prior to 2020 as a comparator suggest that anxiety levels were higher compared with pre-pandemic levels in children and young people (Bevilacqua et al., 2023; Hume et al., 2023; Kauhanen et al., 2023) although some systematic reviews have found little evidence of change (Newlove-Delgado et al., 2023). Studies which had lower estimates of anxiety included more children, while those with higher estimates included more adolescents, suggesting that the older age groups may be more at risk (Bevilacqua et al., 2023). Longitudinal and repeated cross-sectional surveys in the UK have found:

- **No evidence of change.** In English convenience samples, no change was found in a sample of self-reporting 7-11-year-olds comparing anxiety scores reported in April-June 2020 with scores reported 18 months earlier (Bignardi et al., 2020), a sample of parents' reports of 11-12-year-olds comparing scores from December 2019/March 2020 with those from June to August 2020 (Wright et al., 2022), and a sample of self-reporting 12-18-year-olds in inner London comparing scores from May-August 2020 with previous years (Knowles et al., 2022).
- **Evidence of initial improvement.** Symptoms of anxiety decreased from October 2019 to during the first lockdown in May 2020 in a convenience sample of 13-14-year-olds in England, and increased on the return to school (Widnall et al., 2022).

Depression has also been widely studied. Some umbrella reviews of studies have found evidence of an increase in the prevalence and severity of symptoms compared with before the pandemic (Bevilacqua et al., 2023; Duan et al., 2024; Kauhanen et al., 2023) with older adolescents and girls at particular risk (Bevilacqua et al., 2023). A systematic review found a mixed picture but noted that both of the included high-quality studies indicated an increase in symptoms (Newlove-Delgado et al., 2023). Longitudinal and repeated cross-sectional surveys in the UK have found that in overall samples:

- **Evidence of deterioration.** Some studies found an increase in depressive symptoms, including in a self-reporting convenience English sample of 7-11-year-olds, comparing scores in April-June 2020 with 18 months earlier, which found a

medium-to-large effect size (Bignardi et al., 2020), and in a sample of 11-12-year-olds (representative of the local north-west England community) comparing scores from December 2019/March 2020 with those from June to August 2020, according to both child (44% increase) and mother (71% increase) report (Wright et al., 2021). A large natural experiment in England found that if the pandemic had not occurred, there would have been 6% fewer 11-15-year-olds with high levels of depressive symptoms in February-April 2021 (Mansfield et al., 2022).

- **No evidence of change.** In a self-reporting convenience sample of 12-18-year-olds in inner London there was no evidence of an increase in depressive symptoms pre-pandemic to May-August 2020 (Knowles et al., 2022).

Externalising problems

An umbrella review of international studies found evidence that appeared to show an increase in externalising problems (conduct problems, attention deficit/hyperactivity) overall from before to during the pandemic. These studies were mostly in younger children rather than adolescents, and showed mixed results (Newlove-Delgado et al., 2023). This review found an improvement in conduct scores from before to during the pandemic. Longitudinal and repeated cross-sectional surveys in the UK have found that in overall samples:

- **Evidence of deterioration.** Disruptive behaviour problem symptoms reported by mothers increased in a sample of 11-12-year-olds (representative of the local north-west England community) comparing scores from December 2019/March 2020 with those from June to August 2020 (Wright et al., 2021).
- **No evidence of change.** Among a younger representative sample in Wales, the percentage of 10-11-year-olds reporting higher levels of behavioural difficulties did not change between 2019 and 2021 (Moore et al., 2022). A large convenience sample in England found no significant difference in externalising symptoms between 11-15-year-olds in February-April 2021 and a cohort the previous year (Mansfield et al., 2022).
- **Evidence of improvement.** Among a representative sample of 10-16-year-olds in England, the proportion of young people having low or no conduct problems increased from before the pandemic to July 2020, suggesting an improvement during the pandemic, possibly because more time at home meant there was less opportunity for school and peer-related difficulties to emerge (Hu and Qian, 2021).

International reviews have found that **attention-deficit/hyperactivity** symptoms worsened in young people during the pandemic, particularly in males and younger children, and to a lesser degree in females and young people (Panchal et al., 2023), although another meta-analysis found little evidence for change in average scores among young people (Newlove-Delgado et al., 2023). These reviews related to symptoms in the general population of children and young people rather than those with a diagnosis of Attention-Deficit/Hyperactivity Disorder (ADHD).

Post-traumatic stress

Fewer studies have been carried out internationally on symptoms of **post-traumatic stress disorder**. Longitudinal and repeated cross-sectional studies in the UK have found evidence of:

- **Deterioration:** in a sample of 11-12-year-olds (representative of the local north-west England community) comparing scores from December 2019/March 2020 with those from June to August 2020, according to both child and mother report (Wright et al., 2021).

Eating disorders

A review of international studies of healthcare use for eating disorders over the pandemic found strong evidence for increased use across emergency departments and inpatient and outpatient services. The findings suggested a larger rate increase among adolescents as compared to children, in girls versus boys, and for anorexia nervosa in particular. (Madigan, Vaillancourt et al., 2023).

This pattern of significantly increased healthcare use was also found in the UK and Ireland. For example, there were increases in the number of young people admitted to English (Broomfield et al., 2021) and Irish hospitals with eating disorders (Driscoll et al., 2023). The number of young people referred to specialist community eating disorder services in Ireland also increased (Campbell et al., 2022; Driscoll et al., 2023) with young people losing weight faster, fewer being on medication, and being referred earlier to specialist services. Of the 63 young people referred between March 2020 and August 2021, 80% said that the pandemic had had a negative impact on their overall wellbeing and had contributed to their eating disorder (Campbell et al., 2022).

Self-harm

A review of international studies found that rates of self-harm increased during the pandemic among young people but decreased among younger children (Madigan, Korczak et al., 2023).

Actual rates of self-harm across the pandemic are difficult to find in the UK and Ireland. Among a self-reporting convenience sample of 12-18-year-olds in inner London, there was no evidence of an increase in self-harm between 2018-19 and May to August 2020 (Knowles et al., 2022).

Health records of children and young people visiting their GP or a hospital emergency department (ED) are useful, but as patterns of help-seeking were disrupted by the pandemic, these cannot be taken as evidence of underlying rates. Nonetheless, they are an important part of the picture and also provide information about levels of likely unmet need.

Incidence of self-harm recorded in primary care among 10-17-year-olds in England, already higher than in older age groups before the pandemic, fell sharply in April 2020 compared to expected rates in this age group (Carr et al., 2021) and in Greater Manchester, this fall was proportionally greater than in other age groups (Steeg et al.,

2021). The incidence then showed some fluctuations but a general upward trend across the summer of 2020 (Carr et al., 2021) and in Greater Manchester, the number of episodes were higher in August 2020 to May 2021 than the same months in 2019 (Steeg et al., 2021).

Health records of children and young people presenting to emergency departments (EDs) in mental health crisis add to the picture. While overall numbers of these presentations decreased in March to April 2020 across different hospitals in the UK and Ireland compared to the previous year, the proportion of young people who had been self-harming increased (Ougrin et al., 2021). Moreover, the proportion of those young people who had a previous hospital presentation for self-harm also increased, suggesting that young people with pre-existing mental health difficulties were particularly affected during the first lockdown (Ougrin et al., 2021). Actual numbers of self-harm presentations increased by 12% at an Irish hospital (Kemerer, 2021), and a greater proportion of the children and young people presenting in suicidal crisis at a North-West England ED in the year from March 2020 had also been self-harming (Ashworth et al., 2022).

Together, these findings suggest that public health messaging to control the spread of the virus meant that fewer young people presented to primary care for help relating to self-harm in the first month of the pandemic, but that these increased over the summer.

Suicidal thoughts and behaviours

A review of international studies found good evidence for an increase in ED visits during the pandemic for attempted suicide and modest evidence for an increase in visits for suicidal ideation, particularly among girls (Madigan, Korczak et al., 2023).

These patterns were found in small scale studies in the UK and Ireland. For example, a greater number of 8-18-year-olds visited a large English hospital's ED with overdose, self-harm or suicidal ideation/attempt over the course of the pandemic, with 12% more attending in 2020 than in 2019, and 16% more in 2021. The rate was greater in the first six months of 2021 than the second six months, and the rates of increase were greatest for overdose and suicidal ideation: an increase in self-harm was not found (Padela and Jyothish, 2022). The proportion of young people presenting with self-harm at an Irish hospital in March-April 2020 who had suicidal intent increased by 39% compared to the previous year (Kemerer, 2021). In terms of differences among children and young people presenting during the pandemic compared to before, the proportion presenting with self-harm alongside suicidal intent increased in an Irish ED (Kemerer, 2021), and children and young people presenting at an ED in North-West England were more likely to be under CAMHS and known to a social worker, more likely to be followed up by CAMHS, and less likely to be referred to other services and specialities (Ashworth et al., 2022).

Specifically, in the UK, a study examined a total of 193 likely childhood deaths by suicide. There was no evidence that overall suicide deaths were higher in 2020 than 2019 but weak evidence that the rate in the first lockdown period (April to May 2020) was higher than the corresponding period in 2019. A similar peak was not seen during the following months, or the 2021 lockdown. The characteristics of young people who died over this

time were similar between periods. Amongst the 25 likely suicide deaths reported in the first two months of lockdown, restrictions to education and other activities, disruption to care and support services, tensions at home and isolation appeared to be important factors; although reporting of these may reflect increased vigilance and attention during lockdown (Odd et al, 2021).

Using health services for mental health concerns

Against a backdrop of pre-pandemic concerns about timely access to mental health support for young people, concerns were raised that disruptions to services, referral pathways and help-seeking behaviours would worsen access (NICCY, 2021a; Children in Need, 2020). While services worked hard to adapt and improve, many young people with mental health concerns felt they had not received the level of support they needed. Challenges to access included technological difficulties, long waiting lists, and stigma including concerns about being a burden on services (Lloyd et al., 2023; Young Minds, 2021).

In the MHCYP survey in England, around 8% of parents of children and young people with a probable mental health disorder said the pandemic had affected them seeking help during the first lockdown for a mental health concern for which they would usually seek help, and a further 6% deciding not to seek help for both physical and mental health concerns. As expected, these figures were lower for parents of children unlikely to have a mental disorder (around 1% for each). Of further concern, half (50%) of parents of children with a probable mental disorder said they did not have any concerns about their child's mental or physical health over these months for which they would usually seek help, suggesting high levels of unmet needs (Vizard et al., 2020).

The following year, parents and carers of 5–16-year-olds who reported they had a concern about their child's mental health were asked if they had sought help for this concern between August 2020 and February/March 2021. 40% said they had not (26% among parents of a child with a probable mental health disorder, 54% among those whose child was unlikely to have a mental disorder) (Newlove-Delgado et al., 2021).

Primary care records across the UK showed falls in the number of 10–17-year-olds who were diagnosed with anxiety or depression, who self-harmed, who were prescribed anti-depressants and were referred to mental health services in the first lockdown (Carr et al., 2021). For example, referrals to Child and Adolescent Mental Health Services (CAMHS) fell by 51% in the eight weeks following the March 2020 lockdown compared to the eight weeks before, in Leicestershire, England (Tromans et al., 2020). The decline in presentations for common mental health problems during the pandemic's first wave was more pronounced for 16–24 years old than other age groups (Taxiarchi et al., 2023).

The numbers of children and young people presenting to the emergency department (ED) with mental health concerns also decreased by 24% at an Irish hospital in March to April 2020 compared to the previous year (Kemerer, 2021). Decreases were also found in an English hospital over these months (Shanmugavadivel et al., 2021) and in a review of international studies (Madigan, Korczak et al., 2023).

Children and young people's hospital admissions (for all physical and mental health causes) fell by 25% across five hospitals in Ireland in the year from March 2020 compared to the previous year, but admissions with mental, behavioural, neurodevelopmental disorders and psychosocial reasons fell much less, at just 3%, mostly during the initial lockdown. These psychiatric and psychosocial admissions increased in July/August 2020, rose further in September-December and returned to pre-pandemic levels in January/February 2021. Significant increases were found in girls' admissions for anorexia nervosa, other eating disorders and anxiety, with non-significant changes in admissions for self-harm and autism spectrum disorder (McDonnell et al., 2022).

Summary

Two in five children and half of young people in Northern Ireland felt that their mental health and wellbeing had deteriorated over the lockdowns, affected by challenges of social isolation, anxiety about the future, and the difficulty of accessing mental health support. However, more than one in ten felt their mental health had got better over this time.

Internationally and in Northern Ireland and the rest of the UK, there were general trends of worsening overall mental health and wellbeing prior to the pandemic. It is difficult to tell whether any further declines on average among children and young people into the pandemic were a continuation of this trend or an independent effect of the lockdowns and associated challenges, although fluctuations that tracked the extent of restrictions suggest that the pandemic did indeed have an impact. Longitudinal studies from the UK and Ireland that compared children's mental health during the pandemic with recent pre-pandemic data showed a mixed picture, with some studies showing deterioration in internalising symptoms, depression, externalising problems, post-traumatic stress disorder, eating disorders; others showing no evidence of change in anxiety and depression, externalising problems; and yet others showing improvement in anxiety and externalising problems. Patterns of healthcare usage for general mental health concerns, self-harm, suicidal thoughts and behaviours suggest levels of unmet need in the early months of the pandemic, likely in response to stay-at-home recommendations.

The qualitative evidence points to the diversity of mental health trajectories for individual children and young people, across the months of the pandemic, often tracking the extent of restrictions. For some, the times of strictest lockdown brought the greatest challenges and distress, while for others, these times brought some respite for others who had been experiencing social, academic or other drivers of poor mental health prior to the pandemic. This variability in experiences is also shown in the quantitative data (e.g. Knowles et al., 2022) and this contributes to the mixed and sometimes contradictory findings presented here, along with the complex interplay of risk and protective factor over time (Newlove-Delgado et al., 2023). These are explored more in the final section of this report, which looks at changes in mental health and other outcomes over the pandemic for different sub-groups of children and young people.

5. Education, learning and development

The closure of schools from 23 March 2020 had a profound impact on children and young people's opportunities to learn, develop and achieve. This section considers children and young people's experiences of school during the pandemic, the factors influencing their engagement with remote learning, and the evidence on trends of attainment, attendance and development.

Experiences of school during the pandemic

When the first lockdown came into force in March 2020, children and young people said how much they missed school (NSPCC, 2020; Pearcey et al., 2023), although half (55%) of 5-18-year-olds in Northern Ireland said they felt 'a little bit' happy to be out of school during the first lockdown (Playboard NI, 2020). Despite being away from the school environment, 8-11-year-olds in Wales surveyed in the spring reported being happier with school than their peers a year earlier (James et al., 2021). Year 9 students' feelings of school connectedness increased from October 2019 to April/May 2020, suggesting that schools and staff managed to create positive connections with students during lockdown (Widnall et al., 2020). During the first lockdown, 21% of post-primary pupils in a large survey in England in June and July 2020 reported being quite worried about their school performance, and 52% were worried or extremely worried (Soneson et al., 2023). 41% of 8-18-year-olds in the same survey said they were managing school tasks worse than before lockdown, with 32% reporting no change and 28% managing tasks better (Soneson et al., 2023).

Many children and young people looked forward to going back to school when they reopened, particularly meeting up with friends, playing together, and having routine and structure (NSPCC, 2020; Playboard NI, 2020). However, some children did share their worries about the virus, education and learning, and social relationships (Playboard NI, 2020). Once children and young people returned to school, many were very positive about being back, but some did struggle being in larger groups and a noisier environment, with sometimes changed friendship groups. Others described how different school was with Covid-19 safety measures including bubbling in year groups, and periods when they had to return home to self-isolate (Ashworth et al., 2021; NSPCC, 2020; Pearcey et al., 2020; Widnall et al., 2020).

Experiences were different for the children and young people who continued to attend school in person during lockdown. These included the children of keyworkers, children who were vulnerable and some children with special educational needs, additional needs and/or disabilities (NSPCC, 2020). For those attending school throughout, a major benefit was being able to spend time with and gain support from their friends in person (Pearcey et al., 2023).

Experiences were also different for those children and young people who found school difficult prior to the pandemic, including those with pre-existing mental health difficulties or who had experienced abuse or bullying at school. These aspects are discussed further below in relation to pre-existing pressures. Some parents described

their children thriving away from the social and academic pressures of school during lockdown (Martineau and Bakopoulou, 2023) and some young people found the lockdown to be a break from anxieties about school (Kaya et al., 2022). This included respite from social challenges at school, the more relaxed pace of work and timetables, reduced workloads and deadlines, and relief from the stress of exams (Ashworth et al., 2021; Pearcey et al., 2024; Stewart et al., 2023).

Overall, almost half of P7 pupils (aged 10-11) responding to the Kids Life and Times Survey between October 2020 and February 2021 reflected that their education had been negatively impacted by the pandemic (22% strongly agree, 24% agree) (ARK, 2021a) (Figure 4).

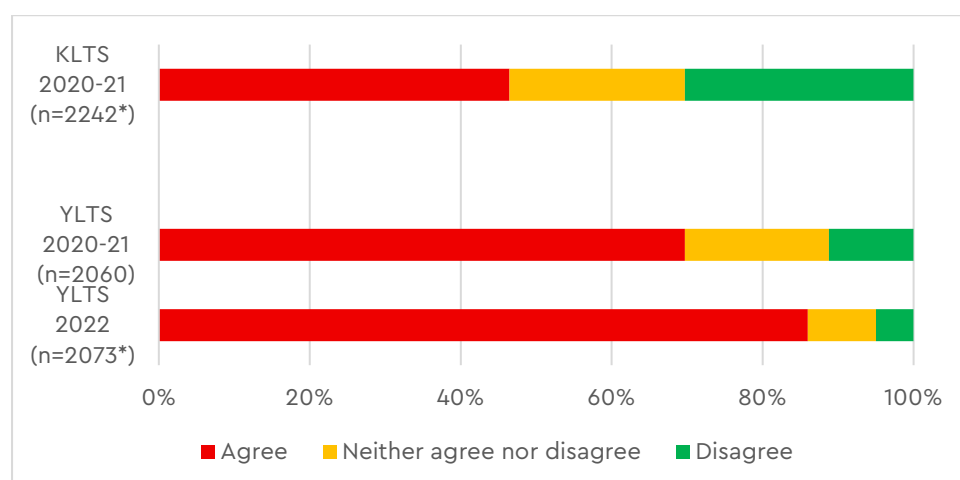
The second full lockdown began in December 2020, and schools in Northern Ireland remained closed after the Christmas break, apart from special schools. Parents in England reported differences in home schooling at this time, including more structured teaching and more feedback from teachers (Saini et al., 2023). Most young people in one study felt that support had improved by the second national lockdown, which appeared to relate to greater interaction with teachers. However, some reported that the workload felt heavier (Pearcey et al., 2023).

Schools in Northern Ireland began a phased return on 8 March 2021 with nursery, preschool and P1-3 children returning. They were followed by P4-7 and Years 13 to 14 on 22 March, and all years returned to school on 12 April.

After this second lockdown, over two-thirds of 16-year-olds who responded to the Young Life and Times Survey in May 2021 (70%) felt their education had been negatively impacted by the pandemic (38% strongly agree, 32% agree) (ARK, 2021b). A year on, a higher proportion (86%) of the next cohort of 16-year-olds perceived a negative impact (ARK, 2022) (Figure 5).

Figure 5:

*Children (KLTS) and young people's (YLTS) views on how much they agree with the statement 'Overall, I feel my education has been negatively affected by Coronavirus (Source: ARK 2021a and b; ARK 2022) * = approx.*



Engagement with remote learning

"To expect parents who are also key workers to be able to work from home and provide a timetable for school work is impossible. This is adding to more stress and anxiety that us parents do not need. I am worried that my son will now be behind by the time he goes back to school. We are not lucky enough to be able to be furloughed and able to focus on the school work."

"We have no laptop or tablet, my children share my phone which is not ideal given the small screen and means they have to work at two separate times."

"This has made me bond with my child more than I ever have."

Parents in O'Connor Bones et al. 2020

Children, young people and their parents reported very varied experiences with home learning. In England at this time, children's engagement with learning fell from 6.3 hours per day on average before lockdown to 4.1 hours during lockdown, with secondary school pupils' drop being particularly large (Andrew et al., 2020). The degree to which children and young people missed out on learning was related to a number of factors.

Varying support from school. While over two thirds (69%) of Northern Ireland P7 children surveyed agreed that they received sufficient support from teachers to help with schoolwork, over one in ten (13%) indicated that they did not receive enough support over the course of the first lockdown. The proportion of older young people who said they had not received enough support was higher, at 23% (NICCY, 2021a). Young people in the UK commented on the loss of support from their teachers (Ashworth et al., 2021), missed the interaction and collaborative nature of learning especially when peers were disengaged (Pearcey et al., 2023; Widnall et al., 2022) and parents felt that the continuity of the relationship with the teacher was seen as key to their child's engagement with school (Martineau and Bakopoulou, 2023). Some reported a lack of feedback on work (Saini et al., 2023). Importantly, the provision of offline and online distance teaching and homework checking significantly increased the time that children and young people spent on home learning, and this helped to mitigate some of the broader inequalities found (Bayrakdar and Guveli, 2023).

Level or appropriateness of teaching provided during lockdown. There were particular challenges around subjects with practical aspects that were harder to teach online (Ashworth et al., 2021; Playboard NI, 2020) or which young people perceived were not being taught to the same depth as in person (Playboard NI, 2020), where young people needed more interaction (Pearcey et al., 2023).

The Education and Training Inspectorate published a series of reports based on surveys and engagement with a range of settings across Northern Ireland in January 2021. Across settings, staff raised issues around digital exclusion and challenges with interactivity impacting on specific activities and subjects. The majority of pre-schools noted a significant drop in engagement from parents compared to the previous lockdown period. Schools expressed concerns for prioritising children and young people's emotional health and wellbeing and the needs of more vulnerable learners and

described creative ways they were supporting this (Education and Training Institute 2021a to e).

Digital access. A majority (77%) of parents of 12-year-olds in Ireland reported they had very or mostly adequate internet access (Murray et al., 2021). However, parents reported technical challenges in logging in and uploading schoolwork (Saini et al., 2023). There was a clear digital divide between households, with some parents reporting lacking internet access and sufficient devices for children during the first lockdown (O'Connor et al., 2020), and competition between family members for devices and Wi-Fi (Saini et al., 2023).

Availability of support from parents. Challenges for parents in supporting their children's home learning included meeting the different learning needs of children in the house (especially when these varied due to variations in age or special educational needs), juggling home-schooling with their own workloads, and making the technology work (O'Connor Bones et al., 2020; Saini et al., 2023). Younger children in England tended to need more motivation and regular encouragement to stay on track (Saini et al., 2023). Parents had different levels of confidence in supporting their children to access different parts of the curriculum (O'Connor Bones et al., 2020), for example, parents of post-primary pupils were most confident in supporting English Language but less confident supporting Technology and Design, Music and Modern Languages.

Parents' ability to support their child with home schooling was significantly associated with their child's mental health in Ireland (McMahon et al., 2021). Some children and young people told Childline counsellors they were reluctant to ask for support due to embarrassment or fear of being viewed negatively by parents (NSPCC, 2020).

Difficulty in concentrating and staying motivated. Even when young people were motivated to get through their work (Saini et al., 2023), they reported difficulties in staying focussed at home, with the distractions of the internet, phones, social media, TV and busy households making it harder to concentrate (McKinlay et al., 2022; NSPCC, 2020; Pearcey et al., 2023). Some also reported that feelings of boredom and a lack of stimulation hampered their online learning (McKinlay et al., 2022).

Lack of access to suitable study space. Some young people found it challenging to study without privacy or a dedicated learning space (McKinlay et al., 2022; Widnall et al., 2022). In Ireland, only 50% of 12-year-olds and 46% of 22-year-olds said they always had a quiet place to study (Murray et al., 2021). In a UK sample, others struggled to study in an isolated environment like a bedroom shut off from the main living space (McKinlay et al., 2022).

Increase in academic anxieties. These challenges in engaging with remote learning contributed to increased anxieties about the impact of missed education. These varied from pupil to pupil, and over time. Children and young people of different ages expressed concern about falling behind while learning remotely, with particular worries for those in exam years or approaching transitions to secondary school and into further education (Knowles et al., 2022; McKinlay et al., 2022; NSPCC, 2020; O'Sullivan et al., 2021; Pearcey et al., 2023; Playboard NI, 2020). Some children and young people

expressed disappointment at not being able to take the exams they had prepared for, while others were relieved (Ashworth et al., 2021; Saini et al., 2023).

Wider losses from school lockdown

Impact on transitions. During lockdown, some children and young people were sad at the loss of moments they would otherwise have enjoyed with peers, such as end of year celebrations and leavers' events (Ashworth et al., 2021; McKinlay et al., 2022; O'Sullivan et al., 2021). Parents expressed concern for children transitioning from English primary to secondary school after lockdown and summer holidays (Saini et al., 2023) but among 10-11-year-olds in Wales, there was no evidence that children were more worried about the transition to secondary school than their peers before lockdown, nor looking forward to it less (Moore et al., 2021).

Loss of additional supports provided through school. Some children and young people calling Childline during the first lockdown reported feeling isolated and lonely because they were unable to see and talk to the trusted adults who supported them in school. They missed the social and emotional support they usually received there. Some talked about missing the safety of school (NSPCC, 2020). On returning to school, some children reported that teachers had noticed they had been struggling during lockdown and had provided additional support, while others reported long waiting lists and other challenges in accessing counselling (NSPCC, 2020).

Attainment

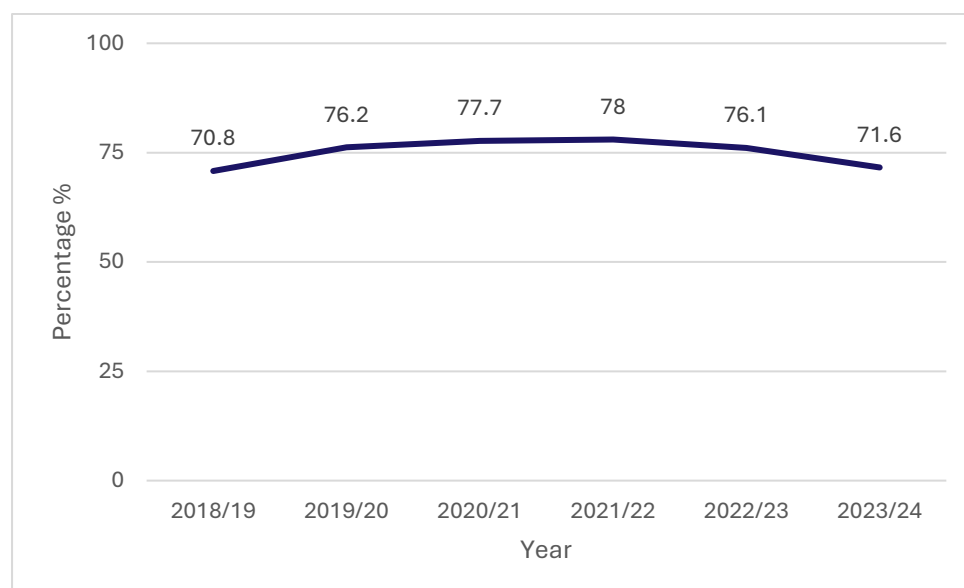
International systematic reviews have found that learning progress slowed substantially during the pandemic, although children and young people began to show progress once schools reopened (Betthausen et al., 2023).

Trends in young people's attainment are difficult to measure, given the alternative methods of awarding grades in Northern Ireland in 2019/20 and 2020/21, and the various ways in which assessments were adapted or supported for 2021/22 and 2022/23. This means that changes from year to year might have been impacted by the different processes for awarding qualifications, rather than indicating a change in underlying performance (DENI, 2025). However, 2023/24 attainment levels have generally decreased since 2022/23, reflecting the return to pre-pandemic awarding arrangements, with 71.6% of school leavers achieving at least five GCSEs at grades A* to C or equivalent including GCSE English and maths (Figure 6).

Figure 2

Percentage of pupils achieving at least 5 GCSEs at A*-C (or equivalents) incl. GCSE English and maths.

Source: <https://www.education-ni.gov.uk/publications/school-leavers-202324>



There is a gap in evidence on younger children's attainment in Northern Ireland (Early et al., 2022). In England, there were measurable declines in primary school children's attainment in autumn 2020 compared to the previous year across almost all subjects and year groups. These drops had declined further by the spring of 2021. Particular subjects including Grammar, Punctuation and Spelling (GPS) and maths showed the largest declines, representing a gap of on average three months' progress across all year groups. Reading, on average, showed a two-month gap. Those children in younger year groups generally showed bigger reductions in attainment than older age groups (Blainey and Hannay, 2021a, 2021b). Children who were in Year 1 or 2 (P1 or P2) during lockdowns have been tracked over time: their attainment in reading and mathematics improved on average between spring 2021 and spring 2022 and appeared to have recovered by spring 2023, but there was an increase in the proportion who had very low reading standards in P3 equivalent (4.9% in 2023 compared with 2.5% in 2017) (Rose et al., 2023).

Attendance

The overall attendance rate for primary, post-primary and special schools in Northern Ireland in the 2023/4 academic year was 91.7% of the total half days, as shown in table 2. This is 2.5 percentage points lower than in the last academic year before the pandemic (2018/19).

Table 2:

% attendance at grant aided primary, post-primary and special schools in Northern Ireland, 2018-2024.
Source: <https://www.education-ni.gov.uk/articles/pupil-attendance> * Data not available for 2022/3 due to industrial action and software issues

	2018/19 (%)	2019/20 (%)	2020/21 (%)	2021/2 (%)	2022/3 * (%)	2023/4 (%)
Primary	95.2	94.4	95.6	91.6	N/A	93.3
Post-primary	92.9	92.4	93.4	89.0	N/A	89.9
Special schools	90.0	89.3	89.7	84.4	N/A	86.1
Overall	94.2	93.5	94.6	90.4	N/A	91.7

Social and emotional development

Parents and professionals were concerned about the impact of the pandemic on the short and long-term social and emotional development of young children, given deteriorating parental mental health, reduced opportunities to play and interact socially, and limits of social and parenting support (Children in Need, 2020).

Recent parents expressed concern about the impact of lockdown on their baby's development and socialization (Rhodes et al., 2020), with reviews of international studies also exploring themes of disruptions to bonding (Adesanya et al., 2022; Kain et al., 2025). Parents of 4-11-year-olds in a convenience sample pointed out their concerns about the relative impact of lockdown on younger children, who had missed almost half of their pre-school or early years of school. They worried about the impacts on their children's opportunities for social interaction and development and noted changes to their children's sociability and outgoingness. However, some also reflected that increased time to play and learn at their own pace had been beneficial and allowed them to be more ready for school when these reopened (Martineau and Bakopoulou, 2023). A review of studies across different countries suggested that while the pandemic was not associated with global developmental delays, it had a significant impact on children's language and communication development (O'Connor et al., 2025).

Parents expressed concerns about their children starting reception in England, with 63% of a representative sample being particularly worried about personal, social and emotional development. Once children started reception, the majority of parents thought their child had settled in well and 80% were happy with how their child was coping by the end of the school year. However, the proportion of children in the sample who achieved a 'good level of development' was smaller than their peers in 2018/19 (59% vs 72%) (Tracey et al., 2022).

Compared with a historical cohort, babies born into lockdown in Ireland appeared to have some differences in their social communication by their first birthday, with fewer having one definite and meaningful word, being able to point, or being able to wave bye-bye. However, they were more likely to be able to crawl, and there were no

differences in other aspects of development such as knowing their name or being able to stand alone (Byrne et al., 2023a). By two years, they had similar scores in fine motor skills, problem solving and personal and social domains of development, but their communication skills were significantly lower (Byrne et al., 2023b). These differences seem likely to be due to the lack of opportunities to socialise and develop outside the home – however the overall differences were small (Byrne et al., 2023a).

A study in England found that young children's ability to process language was not affected by the person speaking wearing a mask, but this did have an impact on their ability to recognize the mask-wearer's emotions accurately. Anger was more easily recognised, and happiness and sadness harder to recognise (Bourke et al., 2022). Difficulties in understanding spoken language from those wearing masks are likely due to the poor sound of the speech signal and the visual removal of the lower part of the face. Children and adults both used semantic and visual clues to help their understanding but adults were more able to compensate for poor sound in contexts where they were more able to predict what was being said (Schwarz et al., 2023).

Summary

Children and young people missed school and the social interactions and routines that went with it at times of closure. However, mitigations put in place by schools seemed to scaffold children's feelings of connectedness and happiness with school. They worried about their school performance and how they were managing tasks out of school. Many looked forward to going back to school but also shared worries and issues about relationships, infection control measures and schoolwork. Some children thrived better while out of school, and for these it was more difficult to return. Other children remained in school, some of them benefiting from small class sizes and different experiences. Overall almost half of children and two thirds of young people felt their education had been negatively impacted by the pandemic and this proportion increased with time.

Schools worked hard to provide online and blended teaching as levels of restrictions varied. For those that were out of school, there was evidence that time spent on learning was significantly reduced during lockdowns. Children and young people's experiences of remote learning varied depending on the nature and level of school support and the appropriateness of teaching, including feedback and interaction. Access to digital devices, internet access and quiet study space had a major impact on their capacity to engage, as did the availability of support from parents. Children and young people worried about the impact of missed education, particularly those approaching transitions, and had mixed views about exams being cancelled. They were also impacted by the loss of additional support provided through school such as counselling.

Trends in attainment are difficult to measure given the different ways in which assessments were adapted or supported during the pandemic years. However, generally 2023/24 GCSE results have returned to pre-pandemic levels. There is also a gap in evidence on younger children's attainment in Northern Ireland: their peers in England

showed significant learning losses but the youngest of these appeared to have recovered to pre-pandemic levels by spring 2023. Overall attendance rates in Northern Ireland remain slightly lower than in the years before the pandemic.

Parents and young people worried about the impact of lockdowns on young children's development. The lack of opportunities to socialise and develop outside the home appeared to have a small enduring impact on babies' social communication but they were similar to their peers in previous cohorts in other areas of development.

6. Activities and sleep

Lockdowns and social distancing requirements had a profound impact on how children and young people spent their time. This section looks at the impact on their physical activity, fitness, sedentary time, time and experiences online, and sleep.

Physical activity

Levels of physical activity were impacted by stay-at-home guidance meaning that organised opportunities were stopped or restricted, and children and young people were spending more time in the home, often with limited space for physical activity. Children and young people missed out on organised sports during the school day, through extra-curricular activities and sports clubs and team sports. While some children and young people had more time for physical activity through unstructured opportunities, particularly with families, others had much more restricted opportunities. Individual motivation, self-determination, attitudes and beliefs, social support and co-participation all helped children and young people to be more physically active, as did access to resources, equipment, programming, space and available time (Eaton et al., 2023; Liu et al., 2022). For example, among 12-14-year-old girls in Ireland, some reported that their physical activity increased, for example to stave off boredom and because of a change in priorities, while others had decreased for reasons including not being able to take part in team sports (O’Kane et al., 2021).

Globally, multiple reviews found a decline in physical activity among children and young people during the pandemic (Duan et al., 2024; Kharel et al., 2022; Li et al., 2023; Pang et al., 2023; Peng et al., 2023; Stockwell et al., 2021; Zaccagni et al., 2025). These reported reductions in the time spent being physically active, and the frequency and intensity of activity. Across Europe, studies using accelerometers to measure children and young people’s activity before and during the pandemic found a reduction of around 48 minutes per day in total physical activity, and around 12 minutes per day of moderate-to-vigorous physical activity (MVPA). Partial or full school closure were associated with higher declines in activity (Ludwig-Walz, Siemens et al., 2023).

Declines in physical activity were found in UK and Irish samples of different age groups. For example, in a sample of 5 to 18-year-olds in Northern Ireland, fewer reported being active through play in the summer of 2020 compared to before the pandemic (31.4% compared to 53.2%), with the decline particularly marked in post-primary young people (Playboard NI, 2021). Among 927 5-11-year-olds in England, children were spending less time on physical activity in July/August 2020 compared to before the pandemic, and the proportion of children who were physically active for less than 30 minutes a day increased from 3.7% to 16.2% (Morgul et al., 2020). Only a quarter of 9-12-year-olds in Bradford reported being sufficiently active enough to benefit their health during the first lockdown: a great reduction from before the pandemic. 29.7% of these children reported that they didn’t leave the home on a usual day during lockdown and this was strongly associated with not being sufficiently active (Bingham et al., 2021).

The impact of lockdown on physical activity had different impacts for different young people. For example, 50% of 1,214 Irish 12-18-year-olds said they did less physical activity during lockdown, while 30% reported no change and 20% did more. Those who said their physical activity had declined were more likely to be overweight and less likely to have strong physical activity habits before lockdown (Ng et al., 2020). 38% of 12-year-olds and 22-year-olds in Ireland reported doing less sports and exercise, while 18% and 25% respectively reported doing more (Murray et al., 2021).

Parents played an important role in younger children's levels of outdoor activity: their encouragement of physical activity, logistical support and involvement in play were associated with more time being physically active outdoors including walking, cycling and playing. Living in detached homes or places with access to outdoor spaces increased children's outdoor activity during the pandemic (Liu et al., 2022).

Lack of access to suitable space had an impact on children and young people's ability to be physically active. 7% of 10-11-year-olds and 11% of 16-year-olds in representative samples in Northern Ireland said they did not have enough outside space (e.g. garden) to keep active/spend time during lockdown (ARK, 2021a and b). Primary school children reported increases in playing in their own gardens during lockdown, while playing in friends' gardens, the street, on pitches and in local areas decreased (Playboard NI, 2020). Among 12-year-olds in Ireland, similar proportions reported spending more (28%) or less (26%) time outdoors during lockdown, while a higher proportion of 22-year-olds reported spending less times outdoors (43% vs 24% more time outdoors) (Murray et al., 2021).

The general overall decline in physical activity also had associations with other areas of life, particularly mental health and wellbeing. Children and young people with higher levels of physical activity had lower levels of psychological and behavioural difficulties (there has been little research on this relationship in pre-schoolers) (Li et al., 2023; Pang et al., 2023). For example, in a sample of 165 14-19-year-olds in England, physical activity during the pandemic counteracted the effects of Coronavirus fear on mental health and well-being (Wright et al., 2021). Some 12-14-year-old girls in Ireland described how physical activity was a priority for them because it helped them to cope (O'Kane et al., 2021). The type of activity may have made a difference: parents of children aged 5 to 11 in Northern Ireland reported that those who spent more time playing adventurously (experiencing feelings of excitement, thrill or fear) in the first month of lockdown had fewer internalising problems and more positive feelings. Similar associations were not found for time spent playing outdoors (Dodd et al., 2022).

Changes were also noted in children's strength and fitness. For example, significant decreases in children's average performance in a 20-metre shuttle run test between October 2019 and November 2020 were found in a sample of 178 8-10-year-olds (85% from the most deprived fifth of households) in Newcastle, with more children's performance categorised as 'very low' (35% in 2019 and 51% in 2020) (Basterfield et al., 2022).

There are some indications that the changes in physical activity lasted beyond the immediate lockdown periods, suggesting longer term changes in habits. For example,

10-11-year-olds' moderate-to-vigorous physical activity was 7-8 minutes lower per day (weekdays and weekends) in 2021 once restrictions were lifted, compared to before the pandemic (Salway et al., 2022).

Sedentary time

As well as physical activity generally decreasing, reviews have found increases in sedentary time (Stockwell et al., 2021; Zaccagni et al., 2025). A sample of children from the UK aged 11-12 spent an increased proportion of their time at home sitting down during the pandemic, from 66% before (in 2017-18) to 75% in June-July 2020 (Sheldrick et al., 2022). While home schooling might have accounted for part of this increase, it is likely that increases in other sedentary time also played a part, including watching TV and gaming (Sheldrick et al., 2022). Children and young people aged 5 to 18 in Northern Ireland reported an increase in daily technology-based play during lockdown from 24% to 56% (Playboard NI, 2020). 62% of 12-year-olds and 47% of 22-year-olds in Ireland reported spending more time talking to friends online or on the phone (Murray et al., 2021).

As with decreased physical activity, there are some indications that these changes persisted after lockdown periods: once restrictions were lifted in the autumn of 2021, 10-11-year-olds were still spending an average of 25 minutes more per weekday being sedentary than before the pandemic, and 14 minutes more per weekend day (Salway et al., 2022).

Screen time

Children and young people used digital devices for a range of different activities during the pandemic including using social media, gaming, consuming news, communicating with family and friends, and engaging with online schooling.

International systematic reviews found increases in screen time over the pandemic (Presta et al., 2024), both for recreational screen time alone, and combining recreational and educational use (Madigan, Eirich et al., 2022). Children and young people facing stricter lockdowns showed greater increases in screen time (Kharel et al., 2022).

Similar patterns were found in samples of children and young people from the UK and Ireland. For example, Welsh 8-11-year-olds reported a significant increase in reported screen time over two hours per day (James et al., 2021). In July-August 2020, parents of preschoolers (Clarke et al., 2021) and 5-11-year-olds (Morgul et al., 2020) reported that their children's daily screen time had increased since before the pandemic, with the rate of children using screens for more than three hours a day increasing from 1.4% to 33.8% (Morgul et al., 2020). A sample of 55 young people reported an increase in screen time from four to six hours on average before and during lockdown, but this did not increase further as lockdown went on (Jester and Kang, 2021). Overall, 60% of 12-year-olds and 65% of 22-year-olds in Ireland reported more informal screen time during the pandemic than before (Murray et al., 2021).

Different types of use increased at varying rates among children and young people of various ages. For example, an international study including 28% of parent participants from the UK found that using screens for entertainment contributed more to 3-7-year-olds' overall increased screen use than did use for educational purposes (Ribner et al., 2023).

Gaming

Studies of young adults showed an increase in gaming, with some changes in the types of games played, and with participants more likely to identify positive impacts on their wellbeing (such as stress relief, escapism, cognitive stimulation and socialising) than negative impacts (largely concerns about unproductivity) (Barr and Copeland-Stewart, 2022). Gaming appeared to mitigate stress, anxiety, depression and loneliness among young people during lockdown, but had detrimental effects in more at-risk groups, with potentially problematic gaming symptoms more likely in males and younger participants (Pallavicini et al., 2022). International studies showed associations between problematic gaming during the pandemic and depression and anxiety (Salerno et al., 2023).

Social media

International studies showed that young people who spent more time on social media during the pandemic were more at risk of mental health difficulties. However, individual studies showed that not all types of digital media use had negative consequences for young people's mental health, with one-to-one communication, mutual online friendship, and positive and funny experiences helping to mitigate feelings of loneliness and stress (Marciano et al., 2021).

In the UK, a higher percentage of girls than boys reported more than three hours of social media use per weekday during the pandemic (55%) than before (43%). However, this excluded gaming, which might have seen a greater increase among boys. At least 50% of girls reported increasing their social media use to help with schoolwork, because they had nothing better to do, and to keep in touch with friends. Fewer boys reported increases in different social media activities compared to before lockdown (Widnall et al., 2020).

Sleep

Globally, the quality of children and young people's sleep appeared to decline during the pandemic (Bevilacqua et al., Duan et al., 2024; Hume et al., 2023; Pang et al., 2023; Peng et al., 2023; Viner et al., 2022). Parents in Scotland reported lower proportions of 2-7-year-olds sleeping through the night than before the pandemic (Watson et al., 2020). However, some children and young people reverted to a more natural sleeping pattern, sleeping and waking later (Hume et al., 2023).

The impact on sleep duration was mixed with some reviews of studies finding that children and young people were sleeping for longer during lockdown (Bussieres et al., 2021) while others did not find a difference (Pang et al., 2023). This mixed picture was

found in primary studies too. For example, a higher proportion of 8-11-year-olds in Wales got the recommended 9 hours of sleep in April 2020 than their peers the previous year, and were less likely to report feeling tired (James et al., 2022). However, UK parents of 5-11-year-olds reported that their children were getting on average half an hour less sleep per day in July/August 2020 compared to their recollection of how things were before lockdown (Morgul et al., 2020). This mixed picture may be due to different impacts on different individuals: in December 2020, half of 22-year-olds in Ireland said they were sleeping about the same as before the pandemic while 22% reported sleeping less and 27% reported sleeping more (Murray et al., 2021).

Patterns may have changed over the course of the pandemic (and may also be subject to differences over the seasons in any year). For example, a small sample of 15-18-year-olds reported that their sleep increased in the early weeks of lockdown, and then decreased again slightly following the start of the new school term (Jester and Kang., 2021).

Summary

Levels of physical activity were severely impacted by lockdowns and social distancing. Restricted opportunities to play, be outside, spend time on organised sport and activity all impacted on children and young people's levels of activity. However, experiences were mixed, with some reporting increasing levels of activity. Access to suitable spaces to play and keep active differed between children, as did the time and capacity of parents to support their children's outdoor activities. Levels of physical activity had knock-on effects on mental health and wellbeing, with higher levels of activity helping to protect children from anxiety and being a coping strategy for some. There were also impacts on children's strength and fitness, and some evidence that changes to physical activity persisted beyond the immediate lockdown suggesting longer term changes in habits.

In parallel to decreasing levels of physical activity, children and young people's sedentary time generally increased. Levels of screen time saw significant increases, as children and young people were using screens to do so many more of their usual activities including learning and socialising. Some young people found gaming to be a helpful coping strategy while international evidence suggested some concerns for high-risk groups. Such reviews also found concerns around increases in use of social media, but some young people also reported how this helped with their communication and socialising.

The evidence on the impact on sleep was mixed, with some studies finding improvements in children and young people's amount and quality of sleep, while others finding no difference, likely due in part to different patterns in individual children and young people.

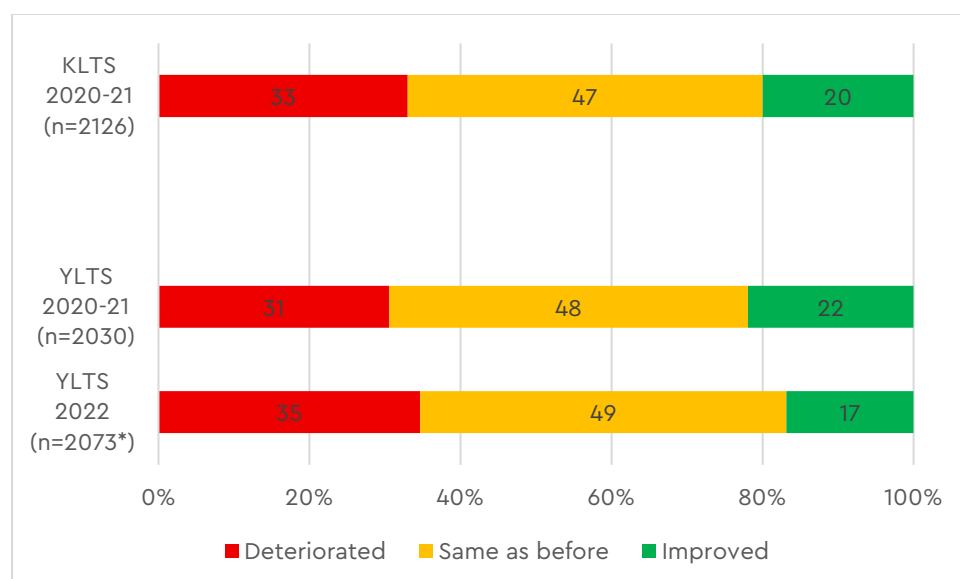
7. Physical health

This section looks at the impact of lockdowns on children and young people's physical health, through changes to diet, substance use, activity and access to health care services.

In Northern Ireland, 33% of 10-11-year-olds and 31% of 16-year-olds felt that their physical health was worse during lockdown, with 20/22% reporting it was better and 47/48% the same as before (ARK, 2021a and b). A year on, a slightly higher proportion of the next cohort of 16-year-olds reported that their physical health was worse during the pandemic (35%) (Figure 7).

Figure 3:

*Children (KLTS) and young people's (YLTS) views of the impact of lockdown on their physical health (Source: ARK 2021a and b; ARK 2022a and b) * = approx.*



Alcohol

Some young people reported using alcohol as a coping strategy during lockdown periods (Dewa et al., 2024). However, international reviews suggest that overall, more studies reported that levels of drinking fell during lockdown among young people (Botella-Juan et al., 2025; Layman et al., 2022). For example, among a sample of UK students (86% female), alcohol consumption fell significantly between October 2019 and April-May 2020 (Evans et al., 2021) and among a representative sample, the proportion of young people who had had an alcoholic drink in the previous seven days fell from 55.5% in 2020 to 43.3% in 2021 (Newlove-Delgado et al., 2021).

However, these patterns might mask a more complex picture among individual young people: while 60% of 22-year-old alcohol drinkers in Ireland reported that they drank less during the pandemic, 17% reported that they were drinking more (Murray et al., 2021). Internationally, risk factors for increased binge drinking among young people during the pandemic included pandemic stressors (e.g., isolation, social disconnection

and non-compliance with restrictions), psychosocial issues (e.g., depression, anxiety, boredom, and low resilience), prior substance use, and sociodemographic variables (e.g., low education, female gender, economic extremes, living arrangements, academic disengagement, and limited family support) (Merino-Casquero et al., 2025).

Other substances

As with alcohol, there seemed to be a general trend in international studies towards reduced use of substances including cannabis, tobacco and e-cigarettes/vapes during lockdown periods, with a more mixed picture in relation to other drugs and unspecified substances (Layman et al., 2022). In a clinical sample of young people referred to psychiatry following a crisis visit to the emergency department in Ireland, the proportion who said they had misused drugs fell significantly from 53% (8/15) in 2019 to 19% (9/47) in 2021 (McLoughlin et al., 2021). Declines may have been part of a longer-term trend in substance use, with the lockdown also interrupting availability, access and gatherings with peers (Layman et al., 2022).

However, among young people who were using substances more regularly prior to the lockdown, the picture may look different. Among 200 young people who used cannabis regularly in the run-up to March 2020, their cannabis and alcohol use increased during lockdown, which may have been a strategy to cope with the monotony of lockdown, while their use of other drugs declined and there was no change in their use of cigarettes (Skumlien et al., 2021).

Diet

Globally, studies have shown a mixed picture of the impact of the pandemic on children and young people's diet and eating habits, with some suggestion of mostly favourable changes (Na et al., 2025; Woods et al., 2024). Parents in England reported their children eating more snacks but also spending more time preparing meals and eating together (Clarke et al., 2021). In Wales, 8-11-year-olds were more likely to eat breakfast and also more likely to eat sugary snacks in April 2020 compared to the previous year (James et al., 2021). In Ireland 29% of 12-year-olds and 44% of 22-year-olds reported eating more junk food or sweets in December 2020 compared to just before lockdown (Murray et al., 2021).

Body Mass Index (BMI) and obesity

Children and young people's weight, BMI and prevalence of obesity appear to have increased during the pandemic (Chaabane et al., 2021; Chang et al., 2021; Hume et al., 2023; Viner et al., 2022; Zaccagni et al., 2025). For example, the average BMI of a sample of 178 8-10-year-olds (85% from the most deprived fifth of households) in Newcastle rose by 1.5 points between October 2019 and November 2020. 47% of children's weights were categorised as overweight or obese compared to 33% before the pandemic (Basterfield et al., 2022).

Diabetes

International reviews suggest an increased risk of new-onset type 1 diabetes and diabetic ketoacidosis among children and young people during the pandemic (Alfayez et al., 2022; Duan et al., 2024; Meregildo et al., 2023). In North London, children and young people with a new diagnosis of type 1 diabetes during the first wave of the pandemic presented with more serious symptoms than those before the pandemic. While this may have been due in part to complex associations between COVID-19 infection and onset of diabetes, delays in seeking medical attention have also been suggested as a factor (McGlacken-Byrne et al., 2021).

Access to physical health services

Prior to the pandemic, children and young people were already facing challenges in accessing timely health care. Changes to the way healthcare services were provided during the pandemic, including stay-at-home restrictions and redeployment of health staff, raised concerns about children and young people missing out on necessary healthcare (NICCY, 2021a).

In Northern Ireland 4% of 10-11- and 16-year-olds reported that they had needed medical treatment for an issue not related to Covid-19 during lockdown, but had not been able to get it. 12% of the 10-11-year-olds and 27% of the 16-year-olds needed such treatment and had been able to access it (Ark, 2021a and b). Among a representative sample, 6% of parents of 12-year-olds in Ireland said that their child had missed out on needed disability services, medical care or support for emotional or mental health problems between March and December 2020, and 10% had missed out on necessary dental care. A higher proportion of 22-year-olds (13%) said they had missed out on mental health support, with 4% missing out on necessary medical care and very few reporting missing out on disability services (Murray et al., 2021).

Concerns were raised that fear of infection or compliance with social distancing requirements might lead to parents not seeking appropriate medical treatment for their children during lockdown periods. Among 1066 parents of children under 16 in Ireland, 34% said that their child had required healthcare during the pandemic, of which 22% decided not to seek it. Parents who reported being much more hesitant about accessing healthcare were more likely to report stress, and these higher levels of stress were associated with believing that government advice meant they should not attend health services with their children (Nicholson et al., 2020).

Waiting lists were a concern pre-pandemic, with Northern Ireland facing some of the longest waiting times across the UK. Analysis by NICCY of health service waiting times found year-on-year increases between 2017 and 2021 in waiting times for first consultant-led outpatient appointments, inpatient and day cases. The largest increase in children waiting for inpatient/day case appointments was between 2020 and 2021. It is not clear the degree to which pandemic-related service reorganisations, disruptions and pressures contributed to these trends, however the pandemic period (April 2020-April 2021) did see a spike in waiting times that exceeded 52 weeks (95% increase). The

report noted important limitations in the data available on trends in community child health waiting times (NICCY, 2021b).

Perinatal services were also impacted, and a number of studies explored parents' views. Among a convenience sample of mothers across the UK, two different experiences of breastfeeding emerged: with 42% feeling that this was protected due to lockdown, but 27% reporting that they struggled to get support and faced multiple barriers, with some stopping breastfeeding sooner than they would have liked (Brown and Shenker, 2020).

Emergency healthcare attendance

Patterns of children's and young people's use of emergency health care changed during the pandemic, with emergency department (ED) presentations generally falling in early lockdown (Cheng, Huang et al., 2023) which may indicate a general decrease in need (for example, a decline in viral infections other than Covid-19; staying at home meaning changes in activities and greater parental supervision). Across English EDs, overall attendances reduced across all age groups, and on all days and times, and this pattern was seen for different levels of seriousness of the concern. The greatest decreases were seen in school age children and less severe presentations (Hughes et al., 2020). A whole population study in Scotland found that overall emergency paediatric healthcare usage (unscheduled primary care and ED presentations, and unplanned hospital admissions) reduced significantly, but this did not result in increased subsequent presentations, disease severity on admission to paediatric intensive care (PICU), or mortality rates (Williams et al., 2021). However, there was an increase in the proportion of children and young people who were admitted following a visit to the ED in several children's hospitals (Isba et al., 2020; Rose et al., 2020) suggesting delayed and unmet need, although one of these studies did not find an associated increase in mortality or admission to PICU (Rose et al., 2020).

Different types of presentation may have declined at different rates. For example, in a large Irish paediatric ED, overall attendances reduced by 51% between March and April 2019 and 2020, but mental health and safeguarding presentations declined less at 27%, and emergency/life-threatening attendances fell by 17% (Dann et al., 2020). However, patterns at a large English hospital found little difference in the severity of illness, sources of referral or subsequent treatment. Overall, the top five medical complaints of breathing difficulty, fever, abdominal pain, diarrhoea and vomiting, and rash remained the same (when taking into account a change in the way breathing difficulties were coded). Proportions of those attending for illness vs injury remained the same (Shanmugavadivel et al., 2021).

Asthma: ED presentations for asthma at one large London hospital declined by 90% in the first eight weeks of lockdown compared to the same period in 2017-19: concerns that this represented significant unmet need were not supported by the telephone conversations which asthma nurses had with families. Factors contributing to this decline might have included fewer circulating respiratory viruses, reduced air pollution and greater adherence to medication (Chavasse et al., 2020).

Orthopaedic trauma: Patterns of referrals, admissions and operations for acute paediatric trauma also changed. For example, at one London hospital, overall referrals fell by as much as two-thirds in the first six weeks of lockdown compared to the previous year, and the proportion of children and young people with sporting-related injuries fell. A greater proportion of children and young people were seen via telemedicine (Sugand et al., 2020). Records at other UK (Baxter et al., 2020; Hampton et al., 2020; Murphy et al., 2020) and Irish (Sheridan et al., 2020) hospitals also showed a decline in referrals.

Complex chronic conditions: records from five EDs and one urgent care centre in Ireland found that attendance for complex chronic conditions (such as endocrine, metabolic, digestive and haematology/oncology) fell in the first three months of the COVID-19 outbreak and had yet to return to pre-pandemic level at the end of May 2020. Actual numbers are less than 0.5% of overall paediatric attendances, making it difficult to draw conclusions from statistical analysis, but some concerns were raised that these patterns might indicate avoidance behaviour (McDonnell et al., 2020).

Appendicitis: reviews of international studies suggested increased risk of complicated appendicitis and hospitalisation during the pandemic (Duan et al., 2024; Miscia et al., 2021). There were concerns that parents might delay or be less likely to take children to hospital because of concerns about infection, and stay-at-home orders. Hospital records in the UK and Ireland suggested a mixed picture, with some finding that children and young people with appendicitis did present later during the pandemic than before (Dass et al., 2022) and others not finding a difference (Patel et al., 2021). Children and young people were more likely to receive imaging and to be managed non-operatively, which did not appear to have a negative impact on their outcomes (Bethell et al., 2022; Colvin and Lawther, 2021; Patel et al., 2021; Sheath et al., 2021 reviewed in Emile et al., 2021; Miscia et al., 2021 and Pogorelic et al., 2024).

Summary

Around a third of children and young people in Northern Ireland felt that their physical health was worse during lockdown, with a slightly higher proportion of young people feeling this a year on. On average, consumption of alcohol and other substances appeared to fall, while a minority of young people may have increased consumption of alcohol and cannabis as a coping strategy. The evidence on the impact on diet was mixed from across the UK and Ireland, with reports of more snacking and junk food but also more time for families preparing meals together and children eating breakfast. Children and young people's weight, body mass index and prevalence of obesity appear to have increased during the pandemic. There were reports of increased risk of new-onset type 1 diabetes. Stay-at-home restrictions and redeployment of health staff were layered on pre-pandemic challenges in accessing timely health care, with a minority of children, young people and parents reporting that they had been unable to access medical treatment for an issue unrelated to Covid-19, and some evidence that parents were put off seeking help for their child. There was also evidence of mixed impacts on breastfeeding. Pre-pandemic trends in increasing waiting lists worsened during the

pandemic. Generally, use of emergency health care fell during lockdown across a range of conditions and concerns, with mixed evidence on the impact on children's health outcomes.

8. Financial and wider family impacts

Lockdowns and ongoing social distancing requirements had profound implications on young people and parents' working patterns and on family finances, and significant mitigations were put in place to protect families from economic shocks. This section explores the impact on working patterns including working from home, furlough and job losses, on income support for families and on food insecurity and wider child poverty.

"It has been hard not having enough money. My mum has two jobs and only one paid her. She worries about the bills and says she can't afford them all. Sometimes she is angry and says she would be better being on benefits than working because she wouldn't have all the bills. Then she says to ignore her because she wants me to work and not get benefits."

(Young person in Playboard NI, 2020)

Organisations across the UK funded and surveyed by Children in Need reported significant challenges for the families they were supporting in terms of affording and accessing the basics including food and hygiene products. They reported increasing financial hardship, instability and worries associated with rising job losses and falling incomes. They described the difficulties in early lockdown of easily accessing affordable food. Many families lacked digital access to sufficient technology and data/connections to be able to access opportunities to learn, receive support and help, connect and socialise (Children in Need, 2020).

Across the UK, in April to June 2020, 63% of parents reported that adults in the household had worked less, 57% said adults in the household had worked from home, 55% had cancelled or postponed holidays, 32% had members of the household classed as vulnerable and 20% had household members self-isolated (Children's Society, 2020a).

In a representative sample in England, nearly half (47%) of children aged 5 to 16 years old lived with a parent who had worked more from home during the pandemic and a fifth (21%) had a parent whose working hours had increased during this period (Vizard et al., 2020).

25% of 10-11-year-olds and 22% of 16-year-olds in Northern Ireland reported that they or a person they were living with had to shield during lockdown because of a health condition (ARK 2021a and b).

Furlough

The [Coronavirus Job Retention Scheme](#) was introduced on 20 March 2020, enabling employers to apply for a grant to cover employees' monthly wages for unworked hours, up to a cap of £2,500, enabling them to put staff on temporary leave or 'furlough'. The scheme continued to September 2021.

In Northern Ireland, around a third (32%) of eligible jobs were furloughed in May to June 2020, falling to around 7% as restrictions eased, and back to around 14% during the second full lockdown in January 2021. In that month, young people under 18 were the

age group most likely to be furloughed, with 40% of employed young women and 30% of young men furloughed, compared to around 15% of other age groups. At the end of the scheme in September 2021, around 4% of the Northern Ireland population were on furlough (HMRC, 2021; NICCY, 2021).

The [Self-Employment Income Support Scheme](#) was established to support the income of those who were self-employed. Northern Ireland had the highest take-up rate across the UK for the first grant by July 2020 at 82% of eligible self-employed people. This fell to 32% claiming the final grant, which was for those impacted by the virus between May and September 2021 (HMRC 2021b, NICCY, 2021).

In July 2020, more than a quarter of children (29%) in a representative sample in England had a parent in the household who had been furloughed or made use of the self-employed income support scheme (Vizard et al., 2020).

Job losses

Statistics are collected in Northern Ireland on the number of proposed redundancies of 20 or more employees. As such, these are likely to be a considerable underestimate of the actual number of redundancies. However, the number of such redundancies proposed in March to August 2020 was almost three times higher than for the previous six months (NISRA, 2020).

Around 6.2% of children lived in a household where a parent had lost their job by July 2020 in a representative sample in England (Vizard et al., 2020).

Benefits uptake

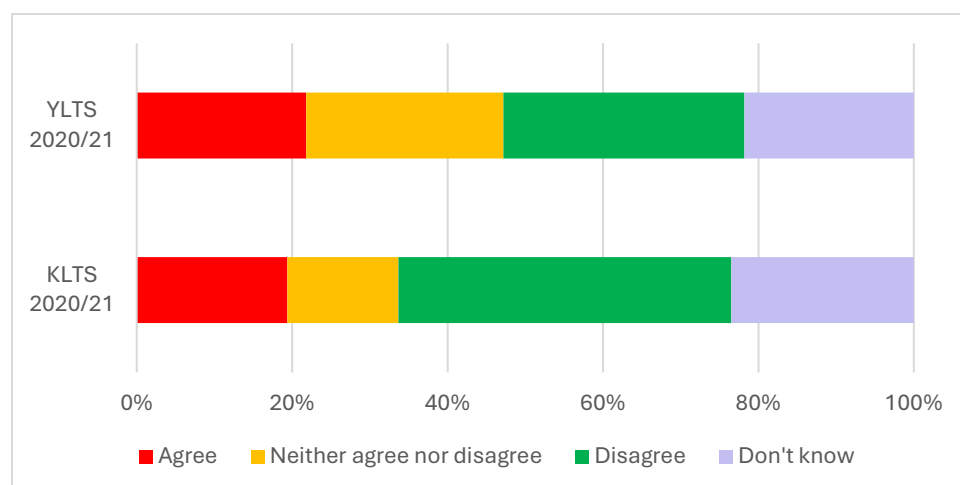
Prior to the pandemic, new Universal Credit (UC) claims ran at around 6,000 claims per month in Northern Ireland and this rose sharply to over 35,000 claims in March 2020. The number of households on UC almost doubled between February and July 2020, continued to increase, peaking in February 2021 and gradually declining to November 2021. In February 2021, 30% (31,740) of UC payments were to lone parents and 11% (11,530) of payments were to couples with children. These proportions were 36% and 11% in November 2021 (NISRA, 2025). Between April 2020 and September 2021, a £20 per week uplift to the standard UC allowance was paid (monthly standard allowances in 2020/21 were £323 for single people over 25; £507 for couple over 25; £236 child element).

Child poverty, household income, food insecurity and homelessness

Around one in five 10-11-year-olds (19%) and 16-year-olds (21%) responding to the Kids Life and Times and Young Life and Times surveys in 2020/21 agreed that their family was worse off because of the virus (Figure 8) (ARK, 2021a and b). Similar proportions in both age groups didn't know: these groups may have been less exposed to financial concerns and discussions in the family.

Figure 4:

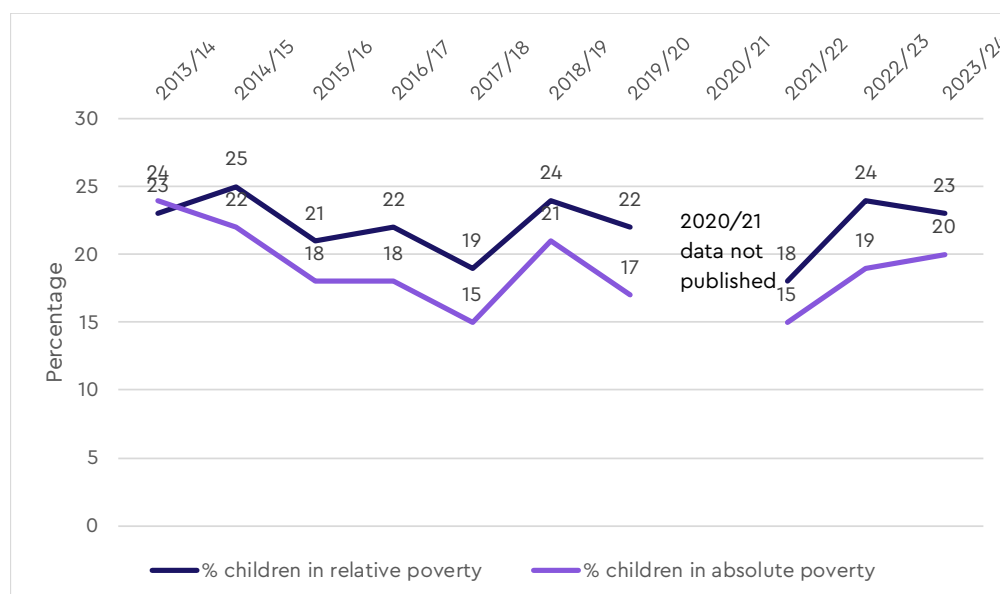
Percentage of children agreeing or disagreeing that their family is financially worse off (has less money) because of Coronavirus. Source: ARK 2021a and b



Annual data on child poverty were not published in 2020/21 as the restrictions led to a smaller than usual sample size, making it difficult to explore the impact of the pandemic on the proportion of children living in relative and absolute poverty (before housing costs). Both figures showed a generally decreasing trend between 2013/14 and 2017/18 before beginning to fluctuate in more recent years, with a generally increasing trend since the pandemic (Figure 9). Overall, children and young people are at greater risk of living in relative and in absolute poverty than the general Northern Ireland population (NISRA, 2025).

Figure 5:

Percentage of Northern Ireland children in relative and absolute poverty, before housing costs, 2013-24. Source: NISRA, 2025



In high income countries, the pandemic generally worsened food insecurity in households with children (Williams et al., 2024). One in five (21%) households with children in the UK experienced food insecurity in the first two weeks of lockdown in March 2020, compared to 14% of households without children. Generally, the situation improved as lockdown eased over the summer of 2020, and January 2021 showed further improvements. However, the proportion of 8–17-year-olds who reported having to eat less and make food last longer because their family didn't have the money to buy more increased from 6.3% over the summer holidays to 8.5% over the Christmas holidays, as did other measures such as being hungry but not eating because there wasn't enough food in the house (3.6% to 4.7%) (Goudie and McIntyre, 2021). The Trussell Trust reported providing 75% more food parcels to families with children in Northern Ireland from April 2020 to March 2021 than the previous year (Trussell Trust, 2021 in NICCY, 2021).

In England, 28% of children experienced a reduction in their household's income during the pandemic. About one in 12 children (9%) lived in a household that had fallen behind with payments during the pandemic, and 2% reported struggling to afford food or having to use foodbanks (Vizard et al., 2020).

Families with a lower income prior to the pandemic were more likely to experience a form of financial setback during the first lockdown than higher income families (Adegboye et al., 2021). However, other studies have found middle-income families to experience more economic disruption (Smyth and Murray, 2022).

Between July and December 2020, families in Northern Ireland including 3,136 children were accepted as homeless, with families including a further 3,416 children in January to June 2021. This compared to families including 3,698 children in the six months from October 2018 to March 2019, and families including 3,496 children in July to December 2019 (Department for Communities, 2021). The number of children living in temporary accommodation has increased steadily since before the pandemic, by 110% between January 2019 and March 2024 (Homeless Connect, 2024).

Summary

Many children and parents reported changes to working practices during lockdowns. While parents who continued in work were much more likely to be working from home, a proportion also were furloughed, but redundancies also increased. The number of households on Universal Credit almost doubled between February and July 2020 and peaked in February 2021. The specific impact of the pandemic on levels of relative and absolute child poverty is difficult to unpick, not least because of the lack of data for 2020/21. However, there is evidence that food insecurity and other measures of financial strain increased. These economic shocks and strains also had an impact on parental mental health, which is discussed further below.

9. Safeguarding

Concerns were raised early in the pandemic about the impact of lockdown on the physical and psychological safety of children and young people given the isolation of children at home, lack of access to those with a responsibility to report child protection concerns, and increased strain on parents and carers (Children in Need, 2020). This section explores the evidence on the impact of lockdowns on children and young people's safety and on safeguarding practices.

NICCY (2021a) stressed the importance of ensuring that children were not at risk, were physically safe, were able to access devices for communication and could speak freely and openly, that safety plans were in place and that meaningful and trusting relationships were in place with vulnerable children.

The vast majority of 10-11-year-olds (91%) and 16-year-olds (94%) in Northern Ireland said they felt safe at home during lockdown (ARK 2021a and b). However, some children and young people calling Childline during the first lockdown reported feeling unsafe at home, and missed the safety of school (NSPCC, 2020).

Internationally, studies based on administrative data such as hospital records and public service data largely found a decrease in reported child abuse and neglect during the pandemic. This was likely to be an underestimate of the true picture because children were not attending hospital during the pandemic, and usual reporting systems such as schools and GP surgeries were closed (Carsley et al., 2024; Kourti et al., 2023; Viner et al., 2022). One very small study in England did find an increase in children presenting to one hospital with abusive head trauma cases during the first two months of the pandemic (Sidpra et al., 2020) but the majority of studies showed a decline in referrals for broader child protection concerns. For example, an English orthopaedic trauma centre saw a reduction in safeguarding referrals in March to May 2020 compared with the previous year: multiple reasons were suggested including all members of the family being at home protecting children from being alone with an abusive adult, and interruptions to usual referral routes (Baxter et al., 2020). Cohort studies in England found significant falls in referrals to child protection teams in early lockdown compared to previous years (Bhopal et al., 2020): in Birmingham these did not recover despite partial relaxation of lockdown in June 2020 (Garstang et al., 2020).

These patterns are similar to those shown by Department of Health data in Northern Ireland, which showed child protection referrals in particular becoming more variable over the pandemic and showing more significant drops at times of stricter lockdown or school holidays (NICCY, 2021a; Department of Health, 2023). As NICCY pointed out in 2021(a), the numbers of children in Northern Ireland placed on the Child Protection Register stayed fairly steady throughout 2020 and 2021 and was less than 1% higher in October 2023 than in the last available pre-pandemic figure of December 2019 (Department of Health, 2023). The number of children in care also remained fairly steady throughout 2020 but began to rise in November 2020 (NICCY, 2021a) and, at the end of October 2023, was 17% higher than in December 2019 (Department of Health, 2023).

Internationally, some surveys have suggested an increase in harsh parenting practices, and cross-sectional studies indicated an increase in abuse and neglect. Studies that reported mixed results tended to report an increase in cases of neglect, emotional and psychological abuse, and decreases in physical and sexual abuse cases (Carsley et al., 2024).

Summary

The vast majority of children and young people in Northern Ireland reported feeling safe at home during the pandemic. However, some reported feeling unsafe and missed the safety of school. The important role of schools and primary health services in reporting instances of child abuse and neglect was highlighted by the significant fall in child protection referrals in England in early lockdown. In Northern Ireland, rates of these referrals became more variable over the pandemic and showed more significant drops at times of stricter lockdown or school holidays, indicating that disruptions in face-to-face contact with children and young people was having an impact on professionals' capacity to spot and act on concerns.

10. Impacts on specific groups

The impacts of lockdown and social distancing requirements were felt particularly keenly by certain groups of children and young people, including those with pre-existing complexities, and those for whom the restrictions brought specific additional challenges. This section explores the evidence of the impact on those experiencing high levels of pandemic-related disruption, on disabled children and young people and those with special educational needs, and those who were socio-economically disadvantaged. It then looks at the impact of individual level factors such as age, gender, ethnicity and pre-existing mental health difficulties, and of family and social level factors including parental mental health, family composition, living arrangements and relationships.

These factors interrelate in complex ways, and children and young people experienced the pandemic at the intersection of many of these groupings. Many children will have been impacted by multiple factors discussed below.

Those experiencing high levels of pandemic-related disruption

As already evident from children and young people's views about the impact of the pandemic on their lives, they had very mixed experiences. For some, the disruptions of school closures and other impacts were accompanied by many other changes and stresses while for others, their circumstances buffered these experiences. Not unexpectedly, this appeared to have an impact on their outcomes.

For example, in a large sample of 12–18-year-olds in London (>80% minority ethnic groups, 25% eligible for FSM), it was those who experienced the greatest **change in circumstances due to the pandemic** that saw the greatest increase in mental distress from pre-pandemic to May–August 2020. This included young people who were living in challenging circumstances such as financial and housing difficulties during the pandemic, and for whom restrictions had impacted negatively on their social connections, activities and routines. There were cumulative effects, with young people showing greater increases in distress the more negative impacts or worries they reported. The greater the number of positive impacts that a young person perceived the pandemic had for them, the greater their reduction in distress from pre- to mid-pandemic (Knowles et al., 2023). Young people in a large convenience sample in England were at increased risk of depression, anxiety or worsened wellbeing if their parent was likely an essential worker (Mansfield et al., 2021).

The availability of **resources and support to help with home schooling** also made a difference to the level of disruption that children and young people experienced. On average, young people's symptoms of mental distress showed a small increase from pre-pandemic baselines in 2020 and then a small decrease in early 2021, but these patterns were more pronounced for those who did not have access to a computer for online schooling. There was no significant difference in trajectories for those that did or didn't have access to a good internet connection (Metherell et al., 2021). Overall, 6–16-year-olds in England with a probable mental disorder in 2021 were less likely to have access to learning resources than children unlikely to have a mental disorder. Likewise, 67.6% of

children with a probable mental disorder reported receiving regular support from their school or college, compared with 83.7% of children unlikely to have a mental disorder (Newlove Delgado et al., 2021). Aspects of digital access are discussed further below in relation to disadvantage.

Falls or volatility in income may have also put children and young people at greater risk, particularly through the impact on parental worries. A representative study in Ireland found that falls in income were associated with worse emotional well-being for 12-year-olds: but once parental worries were taken into account, the negative impact of income falling reduced in size (Smyth and Murray, 2022). In a convenience sample in Wales, financial strain (such as lost employment, loss of income and inability to pay bills) was significantly associated with parental mental health problems, which in turn were significantly associated with mental health problems in younger children aged 4 to 8 (Adegboye et al., 2021). In 2021 in a representative sample in England, children with a probable mental disorder were more likely to live in households that had fallen behind with bills, rent or mortgage during the pandemic than those unlikely to have a mental disorder (13% vs 7%) (Newlove-Delgado et al., 2021).

Serious life events during the pandemic were associated with ongoing high levels of psychological distress beyond the pandemic: 16-17 year olds in England were more likely to report high levels of distress in September 2021 to April 2022 if they had seen more arguments between parents/guardians during the pandemic (69%), were seriously ill (68%), struggled to afford food (67%) or argued more with parents/guardians (67%), compared to 30% of young people who did not experience these life events (Holt-White et al., 2022).

Other, longitudinal findings have not found Covid-19 related experiences such as having a frontline worker in the family or pandemic-related financial difficulties to be associated with disproportionate change in children's mental health scores (Wright et al., 2021) but this may be due to small sample sizes.

At least 16,700 children and young people in the UK were **bereaved** of one or more of their parents/carers through Covid-19 or excess deaths between March 2020 and December 2022 (Imperial College London, 2022). One in twelve (8%) parents in April to June 2020 reported that they had had a close family bereavement (Children's Society, 2020a). Parents described the impact on children of being separated from their relative before their death, the pain of usual funeral and other rituals being interrupted, isolation from and concern about peers and other bereaved family members, and disruptions to routines and wider support networks (Harrop et al., 2022; Geraghty and Lyons, 2021). Parents gave examples of effective family coping and communication, but also of difficulties relating to parental grief and children's existing mental health problems (Harrop et al., 2022). Half (52%) of 16-17-year-olds who experienced the death of a family member or friend during the pandemic reported high levels of psychological distress in September 2021 to April 2022, compared to 30% of their peers who did not experience difficult life events (Holt-White et al., 2022). Parents valued the support provided by schools and bereavement organisations, but there was evidence of unmet need, with

some reporting a lack of access to specialist grief or mental health support (Harrop et al., 2022).

Cross-sectional studies showed that **loneliness** during the pandemic was associated with poorer wellbeing including symptoms of depression and anxiety, gaming addiction, and sleep difficulties (Farrell et al., 2023). The longitudinal picture was more mixed: for example, during March to June of 2020, levels of loneliness were correlated with internalizing and externalizing difficulties among UK 11-16-year-olds, but being lonelier during these months was not associated with greater mental health difficulties a month later (Cooper et al., 2021). Loneliness prior to the pandemic is discussed below, in the section on pre-existing risks.

Summary

There is strong evidence that the degree of disruption that lockdowns and associated measures brought to children and young people's lives had a significant bearing on their outcomes. While there were shared experiences, children and young people were not 'all in it together'. High levels of changes in circumstances, worries about the pandemic, barriers to remote learning, economic shocks, serious life events, bereavement and loneliness all served to worsen children's outcomes. These interrelating and compounding experiences had a profound impact on how children and young people coped with the pandemic over time.

Disabled children and young people and those with special educational needs

Many aspects of the pandemic were particularly difficult and acute for families with a disabled child or young person, given the complex nature of children's needs, pre-existing strain in the family, and specific concerns about the virus and social distancing requirements. Parents worried about protecting their child from the virus, were anxious about their own health and who would care for their child if they became ill, and were concerned about their child falling further behind at school because of the complexities of meeting their needs (Asbury et al., 2020; Balestrini et al., 2020; Geraghty and Lyons, 2021).

Relationships, loneliness and social isolation

Feelings of social isolation and loneliness were often reported by families with a disabled child or child with special educational needs prior to the pandemic, and these increased over the pandemic. In the first lockdown, some parents faced immense pressure in trying to meet their children's complex care needs without the usual help of wider families, friends and paid carers, which led to physical and mental exhaustion for many. Single parents faced particular challenges, especially before the introduction of household bubbles in the summer of 2020 (Asbury et al., 2021; Balestrini et al., 2020;

Geraghty and Lyons, 2021). Parents paid tribute to the voluntary and community sector organisations who had managed to continue supporting them in different ways (Geraghty and Lyons, 2021). Parents also worried about the impact of social isolation on their children's peer relationships and inter-personal skills, which many had worked hard to support (Geraghty and Lyons, 2021).

Although the availability of informal support had improved during the second half of 2020, this had decreased again following the January 2021 lockdown (Family Fund, 2021a). The loss of support was seen to exacerbate many issues for families (Martineau and Bakopoulou, 2023). In March 2021, 88% of families who had accessed recreational and play activities prior to the pandemic were still going without these. 66% of families were still unable to re-access emotional support at this point, 56% lacked previous information and advice, and 36% were still left without help collecting medicines (Family Fund, 2021a).

Parents and young people found the early 2021 lockdown particularly hard in terms of isolation and loneliness, given the short days, poor weather and general sense of weariness with the situation (Geraghty and Lyons, 2021). 78% of families said in February 2021 that the informal support for their disabled or seriously ill child decreased due to the pandemic (Family Fund, 2021a). Parent carers' wellbeing, already lower than the UK population before the pandemic, had deteriorated further following the 2021 lockdown, and their loneliness had increased (Family Fund, 2021).

Some autistic young people had difficulties in keeping in touch with friends during lockdown, lacking contact details or being unsure how to navigate friendships outside of school (Hamilton et al., 2023), and some lost confidence in their ability to socialise (Oliver et al., 2021).

Mental health and wellbeing

Immediately before the pandemic, children and young people in Northern Ireland with special educational needs or disabilities were much more likely to have a common mood or anxiety disorder than their peers (Bunting et al., 2022).

Negative impacts of the pandemic on disabled and seriously ill children's health and wellbeing were widespread, and increased over the course of 2020 and into 2021. By February 2021, 96% of families reported such negative impacts, in particular on behaviour and emotions (93%), and mental health (93%) (Family Fund, 2021a). This included disabled children and young people feeling increasingly anxious and stressed, becoming upset and experiencing more regular low mood and mood swings, as well as escalating challenging behaviours that were difficult for children and families to manage (Asbury et al., 2022; Family Fund, 2021a). Children and young people's anxiety and stress was related to fears of the virus itself, forced separation from wider families, lack of access to respite services and disrupted routines (Geraghty and Lyons, 2021).

In the large but non-representative UK Co-SPACE study, parents and carers reported higher levels of behavioural, emotional and attentional difficulties for children with special educational needs and/or neurodevelopmental disorders (SEN/ND) than those

without SEN/ND, consistently over the three years from March 2020. Unlike their peers without SEN/ND, children with SEN/ND did not show recovery in their mental health after the lockdown of 2021 (Ding et al., 2023; Skripkauskalte et al., 2021). Regardless of their SEN/ND status, on average all children experienced a decrease in their emotional and behavioural difficulties between March and October 2022 while their attentional problems stayed the same (Ding et al., 2023). Similarly, increases in emotional difficulties and stable symptoms of attentional and behavioural difficulties were seen in both groups between October 2022 and March 2023 (Oakes et al., 2023).

A large convenience sample in England did not find that 11-15-year-olds with special educational needs in mainstream schools were more negatively impacted by the pandemic (Mansfield et al., 2022).

Between March and October 2020, autistic young people had more depression and anxiety symptoms compared to young people with other special educational needs and disabilities. As lockdowns progressed and schools reopened, anxiety levels decreased for young people with special educational needs and disabilities, but not for autistic young people (Asbury and Toseeb, 2023; Toseeb and Asbury, 2023). Many of these young people had very fragmented and disrupted experiences of school prior to the pandemic and some experienced the first lockdown as a relief to some degree (Asbury and Toseeb, 2023; Oliver et al., 2021) with a corresponding increase in anxiety as schools reopened (Asbury and Toseeb, 2023).

The majority of parents of children diagnosed with Autism Spectrum Disorder in one study believed that their child's self-regulation and co-operation skills, but not their communication skills, had worsened during the course of lockdown (Morris et al., 2021). A small sample of young autistic people reported feeling worried, isolated and overwhelmed by so much time with family in confined space (O'Hagan & Byrne, 2022) and their sources of anxiety changed over the course of the pandemic (Hamilton et al., 2023). Changes in routine were a source of particular challenge (Children in Need, 2020; Hamilton et al., 2023, National Autistic Society, 2020; O'Sullivan et al., 2021).

Education, learning and development

During the first lockdown, fewer than one in five disabled children and young people in a large convenience sample in Northern Ireland (17%) had attended their nursery, school or college since the beginning of the pandemic. Between the beginning of the new school year and Christmas 2020, with educational settings largely open, this increased to 88%. However, between the beginning of term in January and half-term in February 2021, the second full lockdown, the proportion attending their nursery, school or college for any length of time had fallen back to 39% (Family Fund, 2021a). Although special schools had officially reopened, parents reported reduced hours, not being made aware their children with special educational needs could attend mainstream schools, and a lack of the resources that would normally be available to children (Geraghty and Lyons, 2021).

More than four in five families (87%) with disabled children in Northern Ireland (87%) reported that their child's education and development had been negatively impacted by the pandemic (Family Fund, 2021a) and parents in England worried about the loss of social interaction and academic progress (Banerjee et al., 2021). Professionals across the UK funded and surveyed by Children in Need also worried about re-integration challenges for young people returning to school (Children in Need, 2020).

Reviews of international studies found that students with neurodevelopmental disorders or special educational needs seemed to experience more learning loss than their peers during the pandemic (Hume et al., 2023; Panagouli et al., 2021). During the first lockdown, parents and children shared concerns that online education was insufficiently tailored (Asbury et al., 2020; NSPCC, 2020). For example, in June 2020, 60% of survey respondent who were parents of children with visual impairments in Northern Ireland reported that the resources provided by their child's school were inaccessible and therefore unusable (Wilson, 2020). Parents and young people reported mixed experiences of communication with and support from staff from schools, colleges and universities over the course of the pandemic (Geraghty and Lyons, 2021).

Many aspects of home schooling in Northern Ireland during the first lockdown posed a greater challenge to parents of children with special educational needs than those without these needs, both for those who attended mainstream schools and special schools (Figure 10) (O'Connor Bones et al., 2020). Some parents reported that conflicts over school work had a negative impact on their relationship with their child (Geraghty and Lyons, 2021).

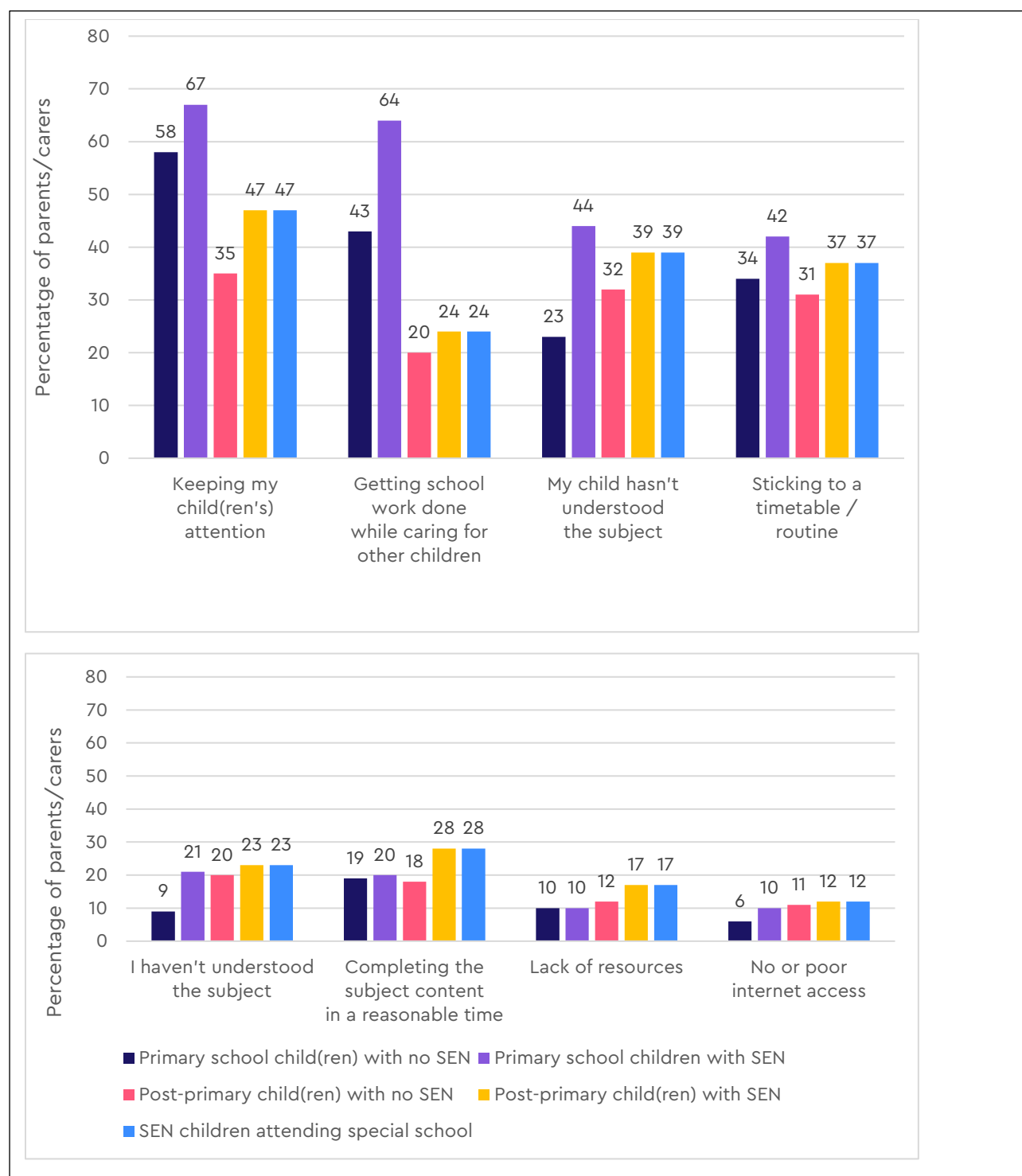
The level of confidence in supporting their children's education varied between different groups of parents. Over a quarter (28%) of parents whose children usually attended special schools reported they were not at all confident in maintaining their child's learning, just under half (47%) were somewhat confident and 22% were confident (O'Connor Bones et al., 2022). Two in five UK parents or carers of autistic children and young people did not feel they could adequately support their children's education needs (National Autistic Society, 2020) and some in England noted a lack of adaptation of materials to make them suitable for their children (Oliver et al., 2021).

Looking at the specifics of learning difficulties, it appears that online learning posed more of a challenge to young people in Wales with working memory problems than to those with processing speed impairments, whose learning scores did not differ from their peers without such difficulties (Walters et al., 2022).

Parents in Northern Ireland appreciated the support, advice and reassurance provided by the culture of the special school, with only a minority reporting lacking support, guidance or input (O'Connor Bones et al., 2022). However, many parents reported a positive impact on children returning to special schools when these reopened, in terms of overall development, communication skills, personal development and emotional wellbeing (Geraghty and Lyons, 2021).

Figure 6:

Percentage of parents/carers reporting home schooling challenges in April/May 2020. Source: O'Connor Bones et al., 2020



School closures represented more than a loss of education and social opportunities, given the wide range of additional support that many disabled and seriously ill children receive in these settings in relation to their condition (Family Fund, 2021; Geraghty and Lyons, 2021; O'Connor Bones et al., 2022). Parents whose children received a range of

therapies at special schools or specialist units within special schools reported continued disruption even when schools reopened in the autumn of 2020, with impacts including deterioration or lack of development in terms of ability to speak and communicate, lack of development of motor skills, and lack of concentration (Geraghty and Lyons, 2021).

As with the general population of children and young people, some of those with special educational needs found periods at home to be a respite from struggles at school. Some families reported relief from pressured routines and were more able to structure their days to suit their child's needs, and some older young people felt they had more time for themselves and to complete tasks. Families also appreciated having time together, enjoying closer interactions and noting positive impacts on development and enrichment (Asbury et al., 2020; Geraghty and Lyons, 2021).

Autistic young people reported mixed experiences on staying in and returning to school, with some appreciating aspects including smaller class sizes and reduced upsetting experiences, opportunities to reconnect with individuals who helped them, and benefits of clearer school rules and routines (brought in to contain transmission of the virus). Others experienced a lack of flexibility and increased sensory and social stress (Hamilton et al., 2023; National Autistic Society, 2020; Oliver et al., 2021).

Activities and sleep

For some children, the disruption to their normal routine was both difficult to understand (especially for younger children and those with significant learning disabilities) and very upsetting. As lockdown disrupted routines which had previously helped children and young people to regulate, challenging behaviour often increased. For example, sleeping patterns were disturbed, they became anxious, distressed and increasingly frustrated, especially those who were non-verbal, had ADHD and some who were autistic (Asbury et al., 2020; Asbury and Toseeb, 2023; Balestrini et al., 2020; Geraghty and Lyons, 2021; National Autistic Society, 2020; O'Connor Bones et al., 2022). Each change to restrictions disrupted routines again (Geraghty and Lyons, 2021).

School closures, along with the closure of sports, social and youth clubs, also had a detrimental impact on respite for families and on young people's ability to socialise and be active, all of which created more stress for parents and carers. Both parents and young people appreciated efforts to move activities online which brought some new opportunities, and to offer respite as lockdown eased, although for families managing complex needs or life-limiting illness it was difficult to balance the health risks of taking up these offers as they resumed (Geraghty and Lyons, 2021).

Physical health

Almost two-thirds (62%) of parents of disabled or seriously ill children and young people in Northern Ireland reported that their children's physical health had been negatively impacted (Family Fund, 2021a). Impacts varied by children and young people's circumstances and conditions. For example, some international studies on the experiences of children and young people with epilepsy found exacerbations in seizures,

changes in dosage, healthcare visits postponed or cancelled, sleep difficulties and increased behavioural problems (Dal-Pai et al., 2023).

Access to services

In February 2021, 73% of families raising a disabled or seriously ill child in Northern Ireland said that the overall support to them had decreased since the beginning of the pandemic; 20% said it had remained the same and 8% said it had improved. The fall-away in support seemed to happen early in the pandemic, with 69% of families reporting this already in March 2020. Although access to formal support improved over the course of the pandemic, in February 2021 around half of families reported that they had still not seen a reinstatement of the pre-pandemic support they had received from paediatricians and consultants, speech/language therapists, educational psychologists and occupational therapists. 55% of families said their disabled child had missed health assessments and reviews since the start of the pandemic, 45% missed hospital appointments and almost 3 in 10 had missed GP appointments (Family Fund, 2021a).

These figures are much higher than among the general population of children and young people, of whom only 4% reported missing medical care during the pandemic (ARK, 2021a and b). Parents reported mixed experiences of support from Health and Social Care Trusts, with some having a positive experience even if there were limitations in what could be offered. Others felt unsupported by social work teams and allied health professionals, and were concerned about the limiting of support: some saw the redeployment of staff to support other areas of the health service as an excuse to reduce or withdraw service provision (Geraghty and Lyons, 2021). Some families in England reported that lockdown brought further delays to a protracted process for diagnosing autism (Oliver et al., 2021). Professionals raised concerns about the long-term risks to education and development through not receiving timely support (Children in Need, 2020).

Financial and wider family impacts

In February 2021, almost half (47%) of families raising a disabled or seriously ill child in Northern Ireland had seen their income fall as a result of the pandemic, while 50% had remained the same. Of these families facing a lower income, a third had seen their monthly household income fall by £200 or more. Against this picture of falling or static income, 80% of families reported that their household costs had increased since the start of the pandemic. The most common drivers were associated with families spending more time at home with their children, including increased food (99%) and energy costs (94%). As a result of these increasing costs almost nine in 10 families (89%) reported struggling or falling behind on their household bills including energy and broadband costs.

As the pandemic went on, an increasing proportion of those families who had savings reported these had depleted, with 61% of families in February 2021 reporting this. At this point, 65% of families reported having no savings or investments. 48% of families reported that their household or personal debts had increased since the beginning of

the pandemic, with rent and mortgage arrears seeing the biggest increase of 87% (Family Fund, 2021a).

Pandemic-related difficulties were also experienced by disabled children's wider families: 87% of parents reported their other children's overall health and wellbeing had declined.

Summary

As these experiences show, the impact of the pandemic was profound and deeply challenging for many disabled children and those with special educational needs, and their families. In February 2021, 49% of families expected it would take at least a year for their life to return to a pre-pandemic normal, compared to 29% of the general population (Family Fund, 2021a).

Socio-economic disadvantage

This section explores whether there is evidence that the pandemic affected disadvantaged and non-disadvantaged children and young people in different ways. There were concerns that direct impacts such as lack of digital access and food insecurity would lead to disproportionate impacts on these families, alongside the indirect impacts of increased strain and anxiety on parents (Children in Need, 2020).

Mental health and wellbeing

Immediately prior to the pandemic, children and young people in Northern Ireland who lived in a household in receipt of benefits were more likely to have a mood or anxiety disorder (Bunting et al., 2022). Those who lived in the 20% most deprived areas had higher overall rates of emotional and behavioural problems compared to the 20% least deprived areas (17% vs 8%), with higher rates of emotional symptoms, conduct problems, hyperactivity, peer problems and panic disorder. There were no statistically significant differences for the prevalence of oppositional defiant disorder or conduct disorder (Bunting et al., 2020).

These patterns of poorer mental health and lower well-being prior to the pandemic persisted through Covid-19 (Kuhn et al., 2022; Mansfield et al., 2022; Miall et al., 2023; Waite et al., 2021). For example, a cross-sectional study of pupils in years 8-13 in southern England in June/July 2020 found that pupils who reported they had experienced food poverty were at greater risk of depression, anxiety and perceiving a deterioration in their well-being than those that had not. These associations were not seen in the smaller group who were eligible for FSM (Mansfield et al., 2021). In a representative sample in England, children aged 6-16 and young people aged 17-22 with a probable mental disorder were more likely than their peers without a probable disorder to live in households that could not afford to buy food or had to use a food bank (Newlove-Delgado et al., 2021).

However, longitudinal studies that have explored differences in the impact of the pandemic on the mental health of children and young people in different economic circumstances have shown a mixed picture.

- Some studies showed that **disadvantage gaps in mental health and well-being narrowed** over the pandemic. For example, a sample of 11–12-year-olds reported higher levels of depressive symptoms in June 2020 compared to December 2019 and March 2020, but this was proportionally less among children in the most disadvantaged families (Wright et al., 2020). In another repeated cross-sectional study, 8–11-year olds in April–June 2020 had higher family wellbeing and happiness with life than their peers the year before, with children eligible for FSM seeing a greater rise in family wellbeing (11% vs 5%). However, these more disadvantaged children still reported feeling less happy with life than their peers (James et al., 2021). Research in England suggested that the gap in ratings of life satisfaction, worthwhileness and anxiousness among secondary school pupils by FSM status was narrower in February 2021 than it had been in August and October 2020 (DfE, 2021 in Kuhn et al., 2022). There was some evidence that externalising difficulties reduced among 12–18-year-olds eligible for FSM in inner London, compared to no change among those not eligible (Knowles et al., 2022). Analysis of Understanding Society data found that children aged 5–11 with higher household incomes experienced greater increases in mental health symptoms from before the pandemic to March 2021, leading to narrowed inequalities. Even greater narrowing was seen when comparing the scores of children of employed vs unemployed parents (Miall et al., 2021). It may be that social isolation and reduced access to services during the pandemic meant that the experiences of traditionally advantaged groups were more akin to those already faced by children from less advantaged backgrounds. Emergency income support measures may also have reduced economic challenges for disadvantaged families (Miall et al., 2021). In a large convenience sample in England, 11–15-year-olds of high socio-economic position showed a greater decrease in life satisfaction relative to a cohort the previous year than their peers who were eligible for FSM (Mansfield et al., 2022).
- Other studies have **not found differences in the impact of the pandemic** between disadvantaged and non-disadvantaged sub-groups. For example, among 13–14-year-olds in October 2019, pupils eligible for FSM reported higher levels of depression but not anxiety, nor lower wellbeing. In April 2020, the FSM and non-FSM groups showed similar reductions in anxiety and depression, and improvements in wellbeing (Widnall et al., 2020). There was no variation in changes of overall distress among 12–18-year-olds in inner London by FSM status (Knowles et al., 2022). A self-report cross-sectional survey of 8–18-year-olds did not find an association between FSM status and changes in wellbeing during the first lockdown (Soneson et al., 2020).
- Yet other studies have found that the pandemic had a **disproportionate impact on disadvantaged** children and young people. Young people from low-income families in a representative UK study experienced a greater decline in mental

health from before the pandemic to July 2020 than their better-off counterparts (Hu and Qian, 2021).

More nuanced patterns have been explored over three years from March 2020 in the large but non-representative UK Co-SPACE study. Consistently over this period, on average, parents from low-income households (< £16,000 per year) reported that their children had higher levels of symptoms of behavioural, emotional and attentional difficulties than those on higher incomes (Ding et al., 2022). Higher income parents and carers reported decreases in their children's symptoms of behavioural, emotional and attentional difficulties as lockdown eased between February and April 2021, but lower income parents did not report the same improvements in their children (Skripkauskalte et al., 2021). Regardless of their family income, on average all children experienced a decrease in their emotional and behavioural difficulties between March and October 2022 while their attentional problems stayed the same (Ding et al., 2023). Similarly, increases in emotional difficulties and stable symptoms of attentional and behavioural difficulties were seen across income levels between October 2022 and March 2023 (Oakes et al., 2023).

In summarising these mixed findings, Kuhn et al. (2022) describe how disadvantaged children and young people continued to have worse mental health and lower wellbeing than their peers, but that the pandemic's impact on them may have been slightly less negative. However, they note that this picture is not totally consistent.

Education, learning and development

Reviews of international studies found that economic inequalities played a significant role in academic performance during the pandemic (Hume et al., 2023) with deficits in attainment and learning largest for children from disadvantaged backgrounds (Betthausen et al., 2023).

The **lack of necessary space, equipment and access** to participate in online classes appeared to be a major driver (Panagouli et al., 2021). For example, children in Irish households experiencing financial strain before and during the pandemic were more likely to lack a quiet place to study and a computer during home schooling (Smyth and Murray, 2022) and in England, children in lower income families were significantly less likely to have access to resources that are positively associated with learning time, including computers/tablets and dedicated study space (Andrew et al., 2020).

Compared to their more affluent peers, children in Wales on FSM experienced a greater decline in school competence, and did not see the same increase in screen time, likely due to having less access to devices, suggesting that learning gaps also widened (James et al., 2021). As well as affecting their ability to engage in school work, a lack of digital access also curtailed children and young people's ability to maintain social connections (Playboard NI, 2020).

In terms of **time spent learning**, primary school children from lower income families in a representative sample in England spent less time on learning (measured by an online time diary with detailed information about home-learning activities) in April to June 2020

than those from better off families: a gap that did not exist before the pandemic. By contrast, inequalities in learning time for secondary school pupils persisted but did not worsen compared to before lockdown (Andrew et al., 2020). 11-18-year-olds in a large representative sample in England who qualified for FSM reported working on fewer days and for less hours during the first lockdown than their peers, working out at around six fewer days schooling (Anders et al., 2023). Across the UK, primary and secondary age children who qualified for FSM studied less at home but those at Key Stage 5 (KS5) studied more than their peers not receiving FSM. Secondary and KS5 students with graduate parents spent longer studying: the difference for primary pupils in these families was less marked (Bayrakdar and Guveli, 2023).

Parents' capacity and confidence to support home schooling also varied by disadvantage. In Northern Ireland, parents whose children qualified for FSM were less confident in supporting their child's learning and also differed in their understanding of subject content, use of resources to support learning, and access to the internet (O'Connor Bones et al., 2020). In England, young people who qualified for FSM were much less likely to receive help from parents with their school work, although there were no differences in paid-for tuition during the first lockdown, but they were less likely to receive help from a tutor outside school after the return in September 2020 (Anders et al., 2023).

In terms of **support from the school** for those who were not in school during the lockdowns, there is mixed evidence on the impact of different strategies on the disadvantage gap. Children in lower income families in a representative sample in England had less access to active school support with home learning because their schools were more likely to provide support through passive means such as learning packs, and less likely to provide active support such as online classes, online video conferencing and online chat. While this strategy was likely intended to mitigate against digital disadvantage, it appeared to be as strong a driver of differences in learning time as the availability of resources at home (Andrew et al., 2020). However, significant efforts were clearly targeted at disadvantaged pupils: for example, those on FSM were more likely than their peers to receive additional in-school tuition or classes on the return to school in the autumn of 2020 (Anders et al., 2023). Taking schools' provision of online and offline distance teaching and homework checking into account reduced the gap in learning time between children eligible for FSM and their peers (Bayrakdar and Gulevi, 2023). There were no clear associations between the ways in which primary schools addressed remote learning (e.g. phoning students, frequency of work submission) and changes in the attainment gap, but there was some tentative evidence that providing video/live lessons to pupils who were absent during the autumn 2020 term narrowed the disadvantage gap (Weidmann et al. 2021).

A representative sample of English children who were in Year 1 or 2 (P1 or P2) during lockdowns have been tracked over time. There was a wide disadvantage gap in these **young children's attainment** in reading and mathematics in autumn 2020 between children eligible for FSM and those not eligible, potentially wider than pre-pandemic levels. There continued to be a large disadvantage gap after the second set of school closures, and indeed this increased for mathematics in Year 2 (Rose et al., 2021c). These

gaps persisted in 2022 and 2023 (Wheatear et al., 2022; Rose et al., 2023). In 2024, the gap had narrowed slightly for Year 4 pupils' reading and mathematics but not for year 5 pupils. Overall, these disadvantage gaps - at between six- and seven-months' progress - remained wider than gaps reported pre-pandemic (Rose et al., 2024).

Again, in England, children eligible for the Pupil Premium (additional funding to help improve educational outcomes of disadvantaged pupils) and those attending schools in more deprived areas tended to show greater declines in **primary school attainment** than their peers at the end of the autumn 2020 term (Blainey and Hannay, 2021a). In spring 2022, the disadvantage gap for those eligible for Pupil Premium had reduced, but was still larger than it was pre-pandemic, in reading and grammar, punctuation and spelling (GPS) (Blainey and Hannay, 2021b). The gap increased each autumn between 2020 and 2022 for Year 6 reading and maths (Milanovic et al., 2023). Another representative study found that the primary maths disadvantage gap increased from autumn 2019 to autumn 2020, with no discernible gap in reading, with no clear further changes in the gap over the autumn 2020 term (Weidmann et al., 2021).

In Northern Ireland, 51.8% of school leavers entitled to FSM achieved at least **five GCSEs at grades A* to C** or equivalent including GCSE English and maths in 2023/4. This was a decrease of 4.7 percentage points since the previous year, and represented a gap of 25.3 percentage points between them and their peers who were not entitled to FSM. Although this gap has narrowed by 3.7 percentage points since 2018/19, the last year before the pandemic, these figures may have been positively impacted by examination assessments during the COVID period (Knox, 2021).

The arrangements for awarding **A-level grades** in 2020 was contentious and changeable. Plans to award young people a grade calculated by an algorithm (calculated grade) were overturned and young people were instead awarded either the calculated grade or a grade assessed by their teachers, whichever was higher, resulting in higher grades awarded in 2020 than previous years. While young people who qualified for FSM benefited from this change to the same extent as their better-off peers, those with non-graduate parents were much less likely to report that they had benefited, even when controlling for prior attainment (Anders et al., 2023).

Some international findings suggest that children of parents with higher education levels were more protected from challenges to their communication development, and that children in higher income families were more able to recover from early challenges (O'Connor et al., 2025). Children in the UK who had access to early childhood education and care during the pandemic had more growth in their receptive vocabulary, with even stronger effects for children of disadvantaged backgrounds (Davies et al., 2021).

Activities

There were also differences in the activities and opportunities available to disadvantaged children and young people compared to their peers. Children, young people and their families experienced lockdown within often challenging home and

family environments without the respite and opportunities provided by school, project activities and clubs (Children in Need, 2020).

Poverty influenced children and young people's opportunities for physical activity: children from low affluence families in Northern Ireland were significantly more likely to report having inadequate outdoor space (NICCY, 2021a), and Welsh 8–11-year-olds eligible for FSM were less physically active than their peers not eligible (James et al., 2021). Living in detached homes or places with access to outdoor spaces or a higher socio-economic status family increased children's outdoor activity during the pandemic (Liu et al., 2022). UK-wide data showed that associations between time spent playing adventurously in the first lockdown and fewer internalising problems (and more positive feelings) were stronger for children from lower-income families. Similar associations were not found for time spent playing outdoors (Dodd et al., 2022).

Findings were mixed about the relationship between household affluence and increases in screen use. For example, Welsh 8-11-year-olds eligible for FSM showed less increase in screen time than their more affluent peers (James et al., 2021), whereas an international study found greater increases in use of entertainment and educational app use among children from lower socio-economic status households (Ribner et al., 2023).

Physical health

Evidence from the pandemic supports the suggestion that schools are important in reducing physical health inequalities: children in Wales who qualified for FSM saw less decline in takeaway consumption during lockdown, walked to the park less and did less exercise. Their fruit and vegetable intake decreased significantly, which was not seen in non-FSM children (James et al., 2021).

Financial and wider family impacts

Disadvantage before the pandemic appeared to put families at greater risk of difficulties during the pandemic. In Ireland, families who experienced financial strain (having difficulty making ends meet) and with lower income levels before the pandemic were significantly more likely to report such strain during the pandemic (Smyth and Murray, 2022). Across the UK, families with children eligible for FSM were more likely to experience food insecurity between August and January 2021 than higher-income families (41% vs 12%) (Goudie and McIntyre, 2021).

Summary

The pandemic did appear to have disproportionate impacts on disadvantaged children and young people's education, with gaps seeming to widen, particularly for younger children. These children also seem to be at greater risk of poorer health behaviours, underlining the importance of schools in tackling health inequalities. However, the picture on mental health and wellbeing is more mixed, with evidence suggesting that disadvantaged children and young people were not more negatively impacted than their peers. Pre-existing disparities may even have narrowed during the pandemic,

although overall, disadvantaged children and young people's mental health remained worse than their peers' throughout.

Other individual characteristics and experiences

This section explores differences in outcomes for children and young people with different characteristics and pre-pandemic experiences, looking specifically at age, gender, gender identity and sexual orientation, ethnicity, physical health, and pre-existing mental health difficulties.

Age

Many studies have focused on either primary or secondary age pupils, precluding simple conclusions about the influence of age on children and young people's experiences of the pandemic. However, some studies have included wider age groups. For example, in the Co-SPACE study, on average throughout the pandemic, parents reported higher levels of symptoms of behavioural and attentional difficulties for primary age children compared to secondary age children. Levels of symptoms of emotional difficulties were similar for both groups. Overall, primary aged children showed more variation over time in their reported symptoms, while those for secondary age young people were relatively stable. For example, the decrease in symptoms from February to April 2021 was especially pronounced for primary school children aged 4-10 (Skripkauskalte et al., 2021). Reviews of international studies have found an increased risk of depressive symptoms in older young people (Hossain et al., 2022) with a more mixed picture in relation to anxiety, which may relate to younger children facing disrupted routines from lockdown (Deng, Zhou et al., 2023).

Gender

The influence of gender has received particular attention in relation to the impact of the pandemic on children and young people's mental health and wellbeing.

Immediately prior to the pandemic, the representative Youth Wellbeing Prevalence Survey found that there were no gender differences in the prevalence of mood or anxiety disorders in the full age range of children and young people in Northern Ireland, but boys had higher rates of oppositional defiant disorder (12% vs 7.3%) and conduct disorder (6.9% vs 4.1%) (Bunting et al., 2020). However, a number of differences emerged when looking at gender in specific age groups. Before the pandemic:

- **Boys aged 5-10** had significantly higher levels of emotional problems than girls in the same age group (19.2% vs 15.3%), and of a range of specific difficulties including major depressive disorder (8.5% vs 2.8%), separation anxiety disorder (7.8% vs 4.4%), social anxiety disorder (5.7% vs 3.4%), generalised anxiety disorder (4.3% vs 3.0%), panic disorder (10.4% vs 2.7%) and obsessive compulsive disorder (5.3% vs 1.9%) than girls in the same age group.

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- **Girls aged 16-19** had higher levels of emotional problems than boys in the same age group (19.7% vs 6.7%) as well as higher rates of social anxiety disorder (9.0% vs 3.2%) (Bunting et al., 2020).

Reviews of international studies have explored whether there were gender differences in changes in mental health from before to during the pandemic. A meta-analysis of European studies found that increases in general symptoms of depression were higher for male adolescents, especially those aged 16-19, while increases for clinical levels of depression were higher for girls across age groups (Ludwig-Walz et al., 2022). Patterns of increases in general symptoms of anxiety were rather different, with 11-15-year-old boys at particular risk but a less clear picture in relation to 16-19-year-olds (Ludwig-Walz et al., 2023), and girls showing a greater risk for clinically relevant levels of anxiety in a more limited range of studies (Ludwig-Walz et al., 2023). Larger increases in healthcare use for eating disorders during the pandemic were seen for girls than boys (Madigan and Vaillancourt, 2025).

Specifically, in relation to children and young people in the UK and Ireland, the impact of gender was mixed, and again often differentiated by age group and type of difficulties. Overall, in the UK Co-SPACE, parents of 4-16-year-olds reported higher symptoms of behavioural and attentional difficulties for boys, and higher levels of emotional difficulties for girls: these patterns were relatively similar over time (Skripkauskalte et al., 2021).

Among **children**

- The UK-wide Understanding Society tracked parent-reported SDQ scores of total mental health difficulties among 5-8-year-olds prior to and during the pandemic. Overall boys had higher (worse) mean scores at all times. Girls showed a notable increase in difficulties between 2019/20 and July 2020 but this did not remain constant and improved to September 2020 and March 2021. Boys showed a rather different pattern: a smaller increase (worsening) in the early months of the pandemic with their mental health continuing to worsen in the following waves (Kuhn et al., 2021).
- Overall in England, rates of probable mental disorder were higher in 2020 and 2021 than in 2017 for both boys and girls (Vizard et al., 2020; Newlove-Delgado et al., 2021). In 2020, among 5-10-year-olds, this increase was statistically significant for boys but not girls (Vizard et al., 2020).

Among **young people**, there is evidence that higher levels of distress in girls persisted into the pandemic and that the gender gap widened in this group.

- In a representative sample of 16-year-olds in Northern Ireland, girls were more likely than boys to experience poor mental health in May 2021 (Lloyd et al., 2023). Their counterparts in England were more likely than boys to report higher levels of psychological distress and symptoms of depression and anxiety, lower self-esteem and life satisfaction (Hartas and Wilder, 2025).
- The Understanding Society survey tracked 10-15-year-olds' reports of their total emotional and behavioural difficulties. Girls' total difficulties started to worsen

compared to boys' in 2015/16, and continued to decline into and throughout the pandemic. Boys' total difficulties, in contrast, improved very slightly between 2019/20 and July 2020, and continued to improve to November 2020 and March 2021 (Kuhn et al., 2021).

- Extending the analysis to include data from July 2021, Mendolia et al., (2022) also found that girls' total difficulties worsened more than boys' over the pandemic: with these increasing for girls but not for boys. This pattern was more marked in lower-income families. Conduct problems decreased among both boys and girls during the pandemic, but more for boys (Mendolia et al., 2022)
- Boys in the sample showed a smaller increase in emotional problems than girls between 2019/20 and July 2020, but a greater decrease in pro-social tendencies (Hu and Qian, 2021).
- In a large, cross-sectional convenience sample of pupils in years 8-13 in England, girls were at greater risk of depression, anxiety and a deterioration in wellbeing in June/July 2020 (Mansfield et al., 2021).
- Other convenience samples comparing pre- and mid-pandemic levels of difficulties have found a small increase for girls, mostly internalising difficulties, and a small decrease for boys, mostly externalising difficulties (Knowles et al., 2022). In another study, rates of anxiety fell for both genders, while risk of depression increased slightly for girls and fell slightly for boys (Widnall et al., 2020).
- A large convenience sample in England found that, after controlling for baseline symptoms, girls aged 11-15 exposed to the pandemic showed greater depressive symptoms and externalising difficulties and lower wellbeing relative to a cohort the previous year than boys did (Mansfield et al., 2022).

Evidence for young people aged 16+ was more mixed

- Young women aged 16-24 had consistently worse mental health (as measured by mean GHQ-12 scores) from 2019 throughout the pandemic. The gender gap was at its widest in April 2020 and January 2021, suggesting that young women found lockdowns more difficult than young men. However, the gap was narrower in January 2022 than at the start of the pandemic, suggesting that young men's mental health was slower to recover (Webster et al., 2022).
- In 2021, among 17-19-year-olds in England, the increase in rates of probable mental disorder compared to 2017 was significant for young women but not young men (Newlove-Delgado et al., 2021).

Looking at other outcomes and impacts of the pandemic, secondary school age girls had strikingly lower wellbeing than boys shortly after the first lockdown, feeling **more held back at school by the lockdown, with lower motivation, more anxiety about the future, and loneliness**. This appears to be driven by differential impacts of the pandemic rather than pre-existing differences in wellbeing (Anders et al., 2022). Other differences were mixed: a selection is presented below.

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- Girls were more likely than boys to **worry about the consequences of the pandemic**, but there were no gender differences in levels of **anxiety about catching the virus** (McElroy et al., 2020).
 - In terms of **lost learning**, secondary school age boys reported working around 0.18 days fewer per week than girls during the first school closures – around the same difference as between young people with and without graduate parents (Anders et al., 2022). Primary age girls and secondary age boys experienced more additional learning loss in reading between autumn 2020 and spring 2021 than the opposite gender (Department for Education, 2021).
 - While secondary age boys were no more likely than girls to receive help with their learning at home, boys were slightly more likely to receive **paid-for tutoring** during the lockdown (Anders et al., 2022).
 - There was no evidence of gender differences in 10- and 11-year-olds' changes in moderate-to-vigorous physical activity (Salway et al., 2022).
 - Reviews of international studies found a greater **increase in BMI and prevalence of obesity** among boys (Zaccagni et al., 2025), but no gender differences in changes in **sleep disturbance** (Deng, Zhou et al., 2023).
 - A UK study found an increase in high levels of weekday **social media usage** among girls but not boys (Widnall et al., 2020). Males reported significantly lower Coronavirus fear, perceived stress, anxiety, general fatigue, physical fatigue, and mental fatigue, as well as higher vitality and general health in a convenience sample of 13–19-year-olds in England (Wright et al., 2021).
 - Girls aged 12 and young women aged 22 were more likely to report **eating more junk food and sweets** since the start of the pandemic (Murray et al., 2021)

Gender identity and sexual orientation

The impact of the pandemic on children and young people who identify as LGBTQ+ was mixed. Young people aged 13-24 discussed the challenges of managing their mental health, including anxiety about going outside and experiencing a lack of structure or routine, not being able to and facing an extension in waiting lists or difficulties in accessing mental health care. Many of these impacts are similar to those on other young people, but specific considerations included not being able to attend LGBTQ+ youth groups that provided important peer support (Town et al., 2023). Professionals also identified concerns for young people who were isolated from the support network offered by projects, and raised concerns for young people who were at home with families who did not support, accept or know about their identity or orientation (Children in Need, 2020).

However, some young people also identified benefits which the pandemic had brought to their ability to manage their mental health including more free time to reflect, developing a closer relationship with family members, being more positive and putting things into perspective, and appreciating friends more (Town et al., 2023). For some non-binary, trans and gender diverse young people and young adults, the reduction in social contact brought new opportunities for gender expression and less pressure to

conform to gender expectations, bringing greater wellbeing and less social anxiety (Gosling et al., 2023; Jones et al., 2023).

A review of international studies found that sexually and gender diverse young people were at greater risk of psychiatric disorders than their heterosexual/cisgender peers during the pandemic (O'Shea et al., 2024). Specifically, in the UK, year 9 LGBTQ+ students had higher anxiety and depression scores than their peers prior to the pandemic, and lower levels of wellbeing (Widnall et al., 2020). These disparities persisted into the pandemic: among 19-year-olds in a representative sample, the quarter of young people who identified with a sexual minority group had significantly lower levels of social support and poorer self-rated health in the early months of the pandemic, and higher levels of psychological distress, anxiety and loneliness, compared to their heterosexual peers (Becares and Kneale, 2023).

It is of concern that these disparities continued over time. Later in the pandemic, 16-year-olds in a representative sample in Northern Ireland were more likely to experience poor mental health in May 2021 if they identified as non-heterosexual (Lloyd et al., 2023). Among 17-18-year-olds in England in October to December 2022, those who identified as non-binary were more likely to say the pandemic was still having a negative impact on their mental well-being (55% compared to 38% of females and 23% of males). Young people from sexual minorities were also more likely to report this than their heterosexual peers (52% of bisexual young people, 49% of gay/lesbian young people and 53% of those with other sexualities, compared to 27% of heterosexuals) (Holt-White et al., 2023).

Not only did these differences persist, but there is also evidence of disproportionate impacts of the pandemic. Year 9 LGBTQ+ students they did not experience the same improvements to their mental health that others experienced over the course of lockdown (Widnall et al., 2020).

As with other young people, it was those that experienced greater impacts from the pandemic that reported worse mental health. Lack of social support, negative social interactions, unsupportive and non-affirming living environments and difficulties in accessing gender transition and/or mental health services were associated with poor mental health among 16-25 trans and gender diverse young people in the UK (Jones et al., 2023).

Ethnicity

There is inconsistent evidence that impacts of the pandemic on children and young people's outcomes differed by ethnicity, despite potential risk factors including higher rates of Covid-19 illness and mortality among certain ethnic minority communities, heightened racist rhetoric around the spread of the virus, and family financial stress. The inconsistency of the evidence may be due to small sample sizes, and to the combining of ethnic groups which potentially masks differences between them (DfE, 2021). For example, the Children's Society found no differences by ethnicity for children and young people's views about different impacts during the first lockdown, but sample sizes only

supported analysis comparing two groups from white and non-white backgrounds, and could not assess differences between children of particular ethnicities (Children's Society, 2020a).

A study at the start of the pandemic did not find significant differences in young adults' mental health across ethnic groups, but warned that these might become evident as the pandemic continued (Pierce et al., 2020). Indeed, a study of young people's mental health over time found that both Black and mixed-race young people were more likely to report higher levels of mental health difficulties than their white counterparts, not at the beginning of the pandemic but a year into it, although mixed-race young people were also more likely to report emotional problems at the start of the pandemic (Hartas, 2024).

In a longitudinal panel survey of 886 young people, ethnic minority young people showed a slightly smaller increase in problems in peer relationships during the pandemic, compared with their white ethnic majority counterparts (Hu and Qian, 2021). The COSMO study also found that Black, Asian and minority ethnic students were less likely than their white counterparts to report psychological distress, depression and anxiety symptoms and lower self-esteem and life satisfaction during the pandemic (Hartas and Wilder, 2025). However, in a convenience sample of 16-24-year-olds in England, young people identifying as Black/Black British had the highest increased odds of experiencing poor mental health (Dewa et al., 2024).

Children of Pakistani heritage and 'Other' ethnic minorities were less likely to be sufficiently active during the first lockdown. However, this difference appeared to be explained by the frequency with which children left the home and for how long. The authors recommend further work to understand the complex reasons for this, which might have included the availability of positive places to play and be active in the local area, and worries and stress experienced by families during lockdown (Bingham et al., 2021).

Conversely, other studies found no differences. Black, Asian and minority ethnic 13-14-year-old students did not report poorer mental health or wellbeing than their white counterparts in October 2019 or April/May 2020 and did not report higher levels of worries related to Covid-19 during lockdown (Widnall et al., 2020). Among 12-18-year-olds in inner London, there were no notable variations in overall distress by ethnic group, but a decrease in externalising problems among some groups (e.g. Black Caribbean) (Knowles et al., 2022).

A representative study of 11-18-year-olds in England showed people from different ethnic groups had broadly similar educational experiences during the first lockdown in terms of the time they spent learning, and the help they received at home. However, Black young people reported studying significantly more days per week during school closures than their white counterparts, and Asian young people were less likely to report receiving help at home with schoolwork during this time. Black and Asian young people were more likely than their white counterparts to receive tutoring during the school closures and also on the return to school. Asian young people were more likely to report feeling held back by the school closures after they returned to school (Anders et al., 2023).

Looking at more specific groups, a different study found that children from Pakistani or Bangladeshi backgrounds spent less time on home learning than white children (Bayrakdar and Guveli, 2023).

Physical conditions or difficulties

Children and young people in poor physical health were impacted differently by the pandemic, particularly those that were clinically vulnerable and less able to benefit from the relaxation of restrictions after periods of lockdown.

Immediately before the pandemic, children and young people in Northern Ireland with poor physical health were much more likely to have a common mood or anxiety disorder than their peers (Bunting et al., 2022). In England too, young people aged 13-14 reporting a health problem or disability had higher anxiety and depression scores, and lower levels of wellbeing than their peers before the pandemic in October 2019. Although there were reductions in anxiety and improvements in wellbeing across the whole sample between then and April/May 2020, there was little change in these outcomes for those with a health problem or disability, suggesting that the drivers of their poor mental health continued to be present when they were not attending school (Widnall et al., 2020). Across the UK, children with a chronic health condition, compared to those without, had higher baseline levels of emotional symptoms in early lockdown (Raw et al., 2021).

During the pandemic, 16-year-olds with poor general physical health were far more likely to report high psychological distress and likely depression and generalised anxiety in a representative sample. They also had lower self-esteem and life satisfaction. This could have been because being in poor health caused more anxiety and concern about Covid-19, or because young people with poor mental health were more likely to neglect their physical health due to marginalisation, limited access to resources and systems of social support (Hartas and Wilder, 2025).

Impacts were also found among other outcomes. 2–7-year-olds in Scotland with a long-term condition were more likely to have sleep that worsened during the pandemic than those without a long-term condition (Watson et al., 2020).

Babies born pre-term or otherwise admitted to neonatal intensive care units (NICU) faced specific impacts, given the restrictions on visiting in the early months of lockdown and the dynamic nature of guidance. In a convenience sample of parents in England who were restricted in visiting their babies at a large hospital between March and September 2020, 72% said this had a significant impact on their ability to form a relationship with their baby (Garfield et al., 2021). Alongside impacts on their own and their partner's mental health and wellbeing, 60% felt that the restrictions had an impact on their baby's wellbeing and 76% felt that their confidence in parenting was reduced. 78% felt they were unable to establish breast-feeding correctly (Garfield et al., 2021). Parents of pre-term babies found themes of loneliness, missed experiences and impacts on bonding (Marino et al., 2022). A joint UK/US study found similar themes across different hospitals, with the level of restriction associated with parents' feelings of being unable to

participate in their babies' care, insufficient bonding, and impacts on breastfeeding (Muniraman et al., 2020). Reviews of international studies found similar impacts on parents' interaction with their babies, maternal mental health and confidence in parenting (Melo et al., 2025).

Pre-existing mental health difficulties or poor wellbeing

There were particular concerns about how lockdown, with its impact on loneliness, sources of anxiety, and access to services, would have particularly problematic impacts for children and young people with pre-existing mental health difficulties. However, contrary to expectation, much of the evidence showed that those with pre-existing mental health difficulties saw greater improvements (or less deterioration) than their peers, particularly in early lockdown.

Knowles et al. found that 12-18-year-olds in inner London who had mental health problems prior to the pandemic experienced, on average, a decrease in mental distress (SDQ total difficulties) by May-August 2020, while those without prior problems did not show a change (Knowles et al., 2022). Similarly, students at risk of depression pre-pandemic showed a reduction in depression scores in comparison to students with no depression pre-pandemic, who showed a small increase in scores. The same pattern was found for anxiety, and students with low wellbeing pre-pandemic showed an increase in wellbeing in comparison to their peers with better wellbeing pre-pandemic, who showed no change (Widnall et al., 2020). It may be that prior problems were linked to more challenging experiences at school, and that some time away from school was beneficial (Knowles et al., 2022; Widnall et al., 2020). In a representative sample 10-16-year-olds, those with better than average mental health before the pandemic showed increases in a range of problems by July 2020 (emotional, conduct, hyperactivity, and peer relationship problems), while those with worse than average mental health before the pandemic showed change in the opposite direction (Hu & Qian, 2021). In a study of 11-12-year-olds, although those who had higher emotional difficulties at age 7 had higher levels of depression pre-pandemic and during the pandemic, there was no evidence of a disproportionate impact of Covid-19 on this group. Mothers reported greater increases in depression and behaviour difficulties over the pandemic among those who had not had prior difficulties (Wright et al., 2021). Children with externalising difficulties, in comparison to children without externalising difficulties, showed significantly greater adjustment over time for parent-reported behavioural and emotional difficulties, in a convenience sample of 4-18-year-olds in Ireland (Berry et al., 2021). Factors influencing this finding could include resilience in families used to coping with children's mental health difficulties and school closures reducing the academic and social pressures that were contributing to young people's difficulties.

However, other studies found the converse: that the pandemic had worse impacts for those with pre-existing mental health difficulties. Young people with high psychological symptoms and poorer emotional regulation at the age of 17 prior to the pandemic had the worst outcomes at age 19 during the pandemic, in a representative sample. These young people experienced more stress, conflict and loneliness, and lower levels of perceived social support than young people with low symptoms (Essau & de la Torre-

Luque, 2021). Young people in years 8-13 in England were more likely to report worsening mental health over the course of the pandemic if they had previously accessed mental health support (Mansfield et al., 2021).

Finally, some studies saw no difference: a large study in England did not find that 11-15-year-olds with pre-existing mental health difficulties were more negatively impacted by the pandemic (Mansfield et al., 2022).

Overall, more studies showed that young people without pre-existing mental health difficulties may have been more impacted by the pandemic, but some studies found the converse, or no difference between groups.

Other family, household and social support factors

This section explores differences in outcomes for children and young people in different living and social situations, looking at the impact of parental mental health, family composition, caring responsibilities, experience of the care system, social support and relationships.

Parental mental health

Prior to the pandemic, there were associations between parents' mental health and that of their children. Children in Northern Ireland whose parents had current mental health problems (as measured by the General Health Questionnaire (GHQ-12)) were twice as likely to have an anxiety or depressive disorder themselves (Bunting et al., 2020). Parents in the most deprived areas in Northern Ireland had higher levels of mental health problems (31.9%) than those in the least deprived areas (17.2%) (Bunting et al., 2020).

These associations persisted into the pandemic. A review of international studies found significant associations between parental mental health symptoms (psychopathology, depression, anxiety, general stress and parenting stress) and child mental health outcomes, with the largest effects found with parenting stress (Stracke et al., 2023). These patterns were found in the UK and Ireland: in a UK convenience sample of almost 1,000 parents and carers of 5-11-year-olds in July/August 2020, more than half of the caregivers reported being moderately or seriously distressed during the lockdown. Their level of psychological distress was significantly related to their child's symptoms. Caregivers with higher levels of distress were significantly more likely to report their children being more worried, restless, anxious, sad, lonely, uneasy, nervous, angry, frustrated, bored, and irritable during than before the lockdown. They were also more likely to report that their children were more impacted by the pandemic, including being afraid of COVID-19 infection, more likely to argue with the rest of the family, cried more easily, ate a lot, had more difficulty concentrating, had more behavioural problems, were more dependent on them, and were more worried when one of the parents left the house (Morgul et al., 2020). The UK Co-SPACE study found that children and young people with parents/carers with higher levels of psychological distress were more likely to experience increasing difficulties (reported by the parent) between the end of March and July 2020 (Raw et al., 2021).

Parents' levels of distress might have influenced the way they perceived and reported their children's difficulties. However, associations were also found when young people reported on their own: between September 2021 and April 2022, over 2 in 5 (44%) young people in England with a parent who had high psychological distress also reported high distress, compared to 30% of those with a parent who did not report high distress (Holt-White et al., 2022).

Parental mental health is also associated with socio-economic position: with those in higher-income groups more likely to report better mental health and wellbeing than those in lower-income groups (Watson et al., 2020). In a convenience sample in Wales, financial strain (such as lost employment, loss of income and inability to pay bills) was significantly associated with parental mental health problems, which in turn were significantly associated with mental health problems in younger children aged 4 to 8 (Adegboye et al., 2021).

Family composition

A representative, longitudinal study found that the pandemic had a particularly adverse impact on the mental health of adolescents from one-parent and one-child families.

Some young people reported that being with their **siblings** helped with their coping (Pearcey et al., 2023) while others described the pressures and conflicts of being locked down with siblings, particularly if there was pressure for space for study and privacy (Hamilton et al., 2023; McKinlay et al., 2022; Playboard NI, 2020; Widnall et al., 2022) or if they were needed to care for younger siblings (Young Minds, 2021). Increases in emotional and peer problems in the early months of lockdown were greater among those that lived with no other children (Hu and Qian 2021; Raw et al., 2021) and another study found that more frequent arguments with siblings were not significantly related to mental health (Smyth and Murray, 2022). Studies have explored the complexities for families where one sibling had particular needs and the impact of this on wider family functioning (Browne et al., 2021).

Children and young people living in **one parent households** had worse mental health prior to the pandemic (Smyth and Murray, 2022): these differences persisted and may have worsened into the pandemic. Consistently over the three years from March 2020, children and young people living in single-adult households in the large but non-representative Co-SPACE study showed higher levels of behavioural, emotional and attentional difficulties compared to the whole sample (Ding et al., 2023). From March to October 2022, on average all children and young people, regardless of their family structure, experienced a decrease in their emotional and behavioural difficulties while their attentional problems stayed the same (Ding et al., 2023). However, between October 2022 and March 2023, emotional difficulty scores increased among children in single-adult but not other households, while their attentional and behavioural difficulty scores did not change significantly, regardless of family structure (Oakes et al., 2023). Analysis of Understanding Society data found that those living in one parent households experienced greater increases in peer relationship problems (Hu and Qian et al., 2021).

Pre-pandemic differences in parental mental health also persisted into the pandemic: 22% of lone parents of 2-7-year-olds in Scotland had low (poor) mental wellbeing scores on the Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS), compared to 13% of parents in two-adult households. These results suggest that parents in single-adult households were faring less well than parents in two-adult households during lockdown (Watson et al., 2020). Children living in single parent families also spend less time on home learning than among those living with two parents (Bayrakdar and Guveli, 2023).

Quality of family relationships

Many young people highlighted extra time with their parents and siblings as a positive of the lockdown and for some this was quite influential on how positive they were about this time (Ashworth et al., 2021). This did seem to have an impact on their mental health and wellbeing. 11-16-year-olds who reported feeling closer to their parents in the early months of lockdown had lower emotional distress both then and one month later (Cooper et al., 2021). Other longitudinal studies found similar patterns of a decrease in distress among those who said their family relationships were a lot better than usual, with these patterns clearer for internalising rather than externalising difficulties (Knowles et al., 2022). Year 9 students with low family connectedness pre-pandemic showed a greater increase in wellbeing and a greater reduction in anxiety scores compared to their peers, along with a small reduction in depression scores between October 2019 and April/May 2020. This suggests that those who felt poorly connected to their families before the pandemic may have had slightly improved mental health and wellbeing when spending more time with their family under lockdown conditions (Widnall et al., 2020).

In parallel, there was a marked increase in distress among young people who reported that relationships with their family were a lot worse than usual during the pandemic (Knowles et al., 2022). Strain in family relationships, such as arguing more with parents, were associated with worse emotional well-being. This appeared to be associated with parents' worries about their financial circumstances, with greater worries leading to more tension in the family and therefore worse child wellbeing (Smyth and Murray, 2021).

Parents and carers who rated family coexistence during the lockdown as more difficult perceived their children as significantly more worried, restless, anxious, sad, reluctant, lonely, uneasy, nervous, quiet, angry, frustrated, bored, and irritable during than before the pandemic. They were also more likely to report their child as being afraid of COVID-19 infection, arguing with the rest of the family, crying more easily, eating a lot, having more difficulty concentrating, more behavioural problems and nightmares, and being more dependent on their parents and more worried when one of them left the house. and more worried when one of the parents left the house (Morgul et al., 2020).

Caring

Young people with caring responsibilities described their social isolation during the pandemic, missing social activities and feeling lonely. For some, their caring responsibilities had increased over the course of lockdown: they were less able to take a

break, and had fewer opportunities to access advice and support. They shared anxieties about the health risks for the person they cared for, including those who were shielding, and expressed worries about the return to normal life. Professionals were concerned about financial difficulties, food insecurity and wider increased challenges for this group (Children in Need, 2020; NICCY, 2021).

In June 2020, 58% of young carers in Britain said the amount of time they spent caring had increased since the pandemic, and 30% were now caring for more people. Two thirds were feeling more stressed than before the pandemic, and 40% said their mental health was worse. 56% said their education was suffering, with 41% saying they didn't have enough time to spend on their schoolwork. A third described how they were struggling to look after themselves, including eating well, getting enough sleep and exercise. Despite the challenges they faced, 71% said their carers' support service was giving them the support they need. Some also identified positive changes through the lockdown, including a stronger relationship with the person they care for (42%) and learning a new skill (40%) (Carers Trust, 2020).

Among a representative sample of 10-16-year-olds in the UK, young carers reported a 36% drop (improvement) in emotional problems in July 2020 (no significant associations were found for November 2020 and March 2021) compared to their peers without caring responsibilities. In contrast, they were 45% more likely to report severe total difficulties a year into the pandemic in March 2021 (no significant associations were found in July 2020 and November 2020) (Hartas, 2024).

16-17-year-olds who were young carers were considerably more likely to report psychological distress in September 2021 to April 2022 (50% vs 43%) and were more likely to have self-harmed (25% vs 17%) (Holt-White et al., 2022). This group were more likely to say the pandemic was still having a negative impact on their mental wellbeing in October to December 2022 (40% compared to 32% of those who were not a carer) (Holt-White et al., 2023).

Experience of the care system

"It was... before my 18th and I didn't have a clue where I was going, and I was actually questioning whether they were going to keep me [there]... because no social workers were telling me where I was going... [finally] I was told where I was going, and that was it. I didn't even get really a say or nothing about it like." (Elena, 18, left care during Covid-19 in Kelly et al. (2020).

Care experienced young people reported similar issues, with some describing a lack of engagement with social workers. They felt that the pandemic had exacerbated their previous difficulties around falling through the gaps in provision.

During the first lockdown, visits to custodial settings and secure care were curtailed (Corr et al., 2021). For children and young people in care, guidance relating to family visits and contact was complicated and this led to increased anxiety for children uncertain about the arrangements (NICCY, 2021). Young people raised difficulties around restrictions on their face-to-face contact with family and professionals. Those in secure

care described how visiting had been curtailed, and the challenges of keeping in touch with their social worker (NICCY, 2021).

Care leavers were identified as a particularly vulnerable group by professionals (Children in Need, 2020). In Northern Ireland, care leavers described how the pandemic disrupted their family relationships, social networks, education, employment and complex transitions into new living arrangements, although some also noted continuities with – and exacerbation of – the difficulties and isolation they had experienced before the pandemic. They described their coping strategies, but many identified negative impacts on their emotional health and wellbeing, including depression, anxiety and social isolation. They had mixed experiences of ongoing contact with their social workers, with some appreciating efforts to stay in touch during very difficult circumstances, and others expressing disappointment at the lack of contact (Kelly et al., 2020).

Homelessness

There is limited evidence on the impact of the pandemic on homeless young people, despite professional concerns raised about this group (Children in Need, 2020). A convenience sample of 50 young people experiencing homelessness in Wales showed improvements in their well-being four weeks after the first lockdown commenced compared to four weeks previously (while still lower than the population average) and self-esteem (Thomas et al., 2021).

Social support

Social support was associated with young people's mental health during the pandemic. For example, in a representative sample in England, 16-year-olds with lower levels of social support from family and friends (e.g. having friends they can count on) were more likely to report higher psychological distress, and elevated symptoms of depression and anxiety. Support from families and communities had a stronger impact on these young people's mental health than support from their friends (Hartas and Wilder, 2025). Young people aged 10-16 years who reported loneliness and a lack of social support from friends and family had a much higher likelihood of severe emotional problems and total difficulties during the pandemic (Hartas, 2024). Children and young people with a probable mental disorder were more likely to report not having some form of social support, than those unlikely to have a mental disorder (Vizard et al., 2020). Among 12-18-year-olds in Inner London, changes in distress from pre- to mid-pandemic did not seem to vary according to whether children and young people were lonely prior to the pandemic (Knowles et al., 2022).

Peer relationships, bullying and school connectedness

In the year prior to the pandemic, 17% of young people in Northern Ireland reported experiences of bullying and 15% had been cyberbullied. Younger boys (aged 11-15 years) were more likely to be bullied than cyberbullied, while among older girls, cyberbullying was twice as common as traditional bullying (Bunting et al., 2020).

Year 9 students with low peer connectedness pre-pandemic had consistently worse mental health and wellbeing than other young people before the pandemic (October 2019), during lockdown (May 2020) and shortly after returning to school (October 2020). They also showed a greater increase in wellbeing scores and a greater reduction in anxiety scores in lockdown than the rest of the sample (Widnall et al., 2020), suggesting that this time provided them with some respite from difficulties with peers. Young people reported a relief and respite from experiences of bullying and conflict at school (Hamilton et al., 2023; Widnall et al., 2022b). Between April and September 2020, Childline saw a notable decrease in the number of counselling sessions about bullying (NSPCC, 2020) and in a large sample of 8–18-year-olds in England, the vast majority of those who had been bullied in the last year said that this had happened much (69%) or slightly (17%) less during lockdown (Soneson et al., 2023).

Children and young people who found lockdown to be a greater respite may have been more likely to struggle with the return to school (NSPCC, 2020; Pearcey, 2023), with reports of increasing anxiety as the return to school approached (Widnall, 2022b).

Among 12–18-year-olds in Inner London, changes in distress from pre- to mid-pandemic did not seem to vary according to whether children and young people had been bullied prior to the pandemic (Knowles et al., 2022).

Sixteen-year-olds in England were more likely to report higher levels of psychological distress and symptoms of depression and anxiety in September 2021 to April 2022 if they recalled experiencing bullying, cyberbullying and discrimination during lockdown periods. These same measures predicted low self-esteem and life satisfaction in this representative sample (Hartas and Wilder, 2025).

School connectedness differs from peer connectedness, and measures young people's sense of school community and relationship with teachers. Year 9 students with low school connectedness pre-pandemic had consistently worse mental health and wellbeing than other young people before the pandemic (October 2019), during lockdown (May 2020) and shortly after returning to school (October 2020). Symptoms of anxiety went down during lockdown, most strongly for students with low school connectedness, and rose again on returning to school. After adjusting for other factors, low school connectedness was associated with greater increases in anxious and depressive symptoms and a decrease in wellbeing on returning to school, compared to medium school connectedness. Together, these findings suggest that, for those who feel less connected to their school, being out of school has a positive effect on mental health and wellbeing, which raises important questions about the school environment and what factors drive anxiety in particular (Widnall et al., 2022).

Summary

Together, these findings point to the importance of social support and relationships in influencing children and young people's outcomes during the pandemic. Generally, children and young people had worse mental health if their parent themselves had mental health difficulties, and there were some indications that those in one-child or

one-parent families were more likely to have difficulties. Broadly, those who experienced difficulties in their peer relationships prior to the pandemic seemed to find some respite from these during lockdown, with an associated rise in concerns or symptoms on the return to school. Improvements in family relationships were associated with greater improvements in mental health and wellbeing.

In contrast, some young people did not see the same patterns as their peers, including LGBTQ+ students and those with health problems or disabilities, suggesting that some of the drivers of their distress were less influenced by school closures and other measures.

11. Conclusion and summary of recommendations from included studies

As shown by the large and diverse body of evidence, the pandemic had profound and multiple consequences for the lives of children and young people across Northern Ireland. All children's lives were disrupted by the social distancing requirements to control the spread of the virus: the restrictions on seeing loved ones, on being with friends, on accessing support and on being in school.

For some, these disruptions were accompanied by or precipitated additional changes and stresses individually or in the family, which put them at greater risk of poor outcomes. For others, their experiences were buffered by social support and resources. For yet another group, the lockdown offered some respite from pre-existing social, academic and other pressures. This diversity in experiences, described so eloquently by children and young people's qualitative accounts, helps to explain the complex and even contradictory quantitative evidence. Exploration of this diversity and the factors that made the pandemic better or worse for different groups has also shone a spotlight onto the pre-existing disparities in outcomes, and suggested ways in which these could be mitigated.

Many of the studies examined for this report made concrete recommendations for policy and practice. Some of these were very time- and context-dependent, and included

- recommendations made during the earliest months of the pandemic, with specific suggestions to mitigate the impacts of full lockdown
- pointers to support children and young people's recovery as schools and society reopened
- principles to help prepare for future emergencies (generally limited to respiratory pandemics)
- suggestions of how to address underlying inequalities that were confirmed by the pandemic.

Here, we summarise the recommendations of most relevance at the time of writing, namely the addressing of underlying inequalities and the learning for future emergencies.

Recommendations: remediation of ongoing impacts

Continuing to build back better

The unprecedented pressures and challenges of the pandemic brought a new lens to ongoing disparities in children and young people's outcomes in Northern Ireland. This included, for example, disadvantage gaps in attainment and in mental health and wellbeing, and specific challenges for groups including disabled children and those with special educational needs, young carers, and those who identify as LGBTQ+. Many studies called for a new urgency in tackling these gaps.

Addressing drivers of distress

There was some evidence that early lockdown provided respite to some groups of children and young people, particularly those who had been experiencing social or academic challenges prior to the pandemic, including bullying, conflict or low connectedness with peers, anxiety about schoolwork. For some this period of protection from harmful stresses was followed by increased anxiety and concern as schools reopened. As a result, multiple studies recommended tackling these pre-pandemic drivers through refocusing on wellbeing in schools and tackling bullying.

Prioritising groups with persistent difficulties

Some groups did not show improvements in wellbeing and mental health over the pandemic, indicating that the drivers of their unhappiness and distress remained in place even when schools were closed. This included LGBTQ+ young people and those with physical health difficulties. Other priority groups include those who developed unhealthy habits during the pandemic, including those whose physical activity reduced.

Improving screening and population-level data collection

Multiple studies recommended further work to improve datasets on children and young people's experiences over time. The Youth Wellbeing and Prevalence Survey provided important information about children and young people's mental health immediately prior to the pandemic, and the Kids Life and Times Survey and Young Life and Times Survey 2020/21 and 2022 was able to capture crucial cross-sectional insights. However, consistent longitudinal data collection over a wide age range would allow better tracking of outcomes at times of future crisis. Studies also recommended improved screening post-pandemic to identify the needs of groups who had been particularly vulnerable to difficulties during lockdowns.

Investing in mental health support

The general rising trend of mental health difficulties in children and young people was already of concern before the pandemic. While the evidence shows a mixed picture with regard to the additional impact of lockdowns on this general trend, concerns about the availability of mental health support remain. Many studies recommended investment in and commitment to a public health approach to supporting children and young people's mental health, including the promotion of healthy ways of coping with life challenges, more consistent preventative and early intervention support in schools and the community, improved signposting, and improved access to specialist mental health support including for specific groups such as autistic young people. Given the associations between children and parents' mental health, many advocated for systemic approaches involving the family, and for support for parents and carers.

Learning for future pandemics and emergencies

Prioritise children and young people's wellbeing in decision-making about restrictions

Decisions about the benefits of school closures and other restrictions in preventing the spread of future viruses should be made in the context of available evidence about the long-term harms on children and young people's health, wellbeing and education. Specifically, the closure of schools and other settings should only be used as a measure of last resort, and for the shortest time possible.

Ensure adequate mitigations are in place to safeguard and support children during times of restriction

If school closures have to be put in place at any future time, all efforts should be put in place to minimise adverse effects on the short-, medium- or longer-term safety, development, health and wellbeing of children and young people. This includes a focus on groups with particular needs and vulnerabilities in the context of lockdown including children and young people at risk of safeguarding concerns, those who need physical or mental healthcare and respite services, those separated from their families, those particularly at risk of social isolation or becoming less physically active. Many of the negative impacts of lockdown occurred within days and weeks of restrictions coming into force and so mitigations should be introduced simultaneously with restrictions rather than delaying.

Provide high quality information to children, young people and parents and carers

Studies indicated the need for reliable, trusted information for children, young people and families across a broad range of topics, to address some of the confusions and uncertainties that may have stopped families from seeking the help they needed, and to promote healthy lifestyles and coping strategies at times of stress, particularly around sleep, routines, physical activity and screen time. Young people also wanted more consistent and clear information about exams, grades and their future. A number of studies also prioritised the promotion of messages promoting self-efficacy and positivity to support children and young people in managing and living with uncertainty.

Provide consistent support for remote learning and catch-up

The relationship between home and school was critical during the pandemic and across the UK there was evidence of inconsistencies in support, particularly during the first lockdown, leading multiple studies to advocate for consistent national guidance in any future lockdowns to support schools, communicate with students and parents, and provide active learning support, including that tailored to children with special educational needs, whether in mainstream or special schools. This should also include communication with the wider school community such as classroom assistants and allied health professionals. Catch-up support should be prioritised for those at risk of falling behind with their learning.

Address financial and practical concerns

Given the pre-existing challenges for disadvantaged families, and the clear evidence that pandemic-related disruptions and hardships put children and young people at additional risk, many studies reiterated the value of measures to address and maintain food security and wider household income, reduce housing instability and economic hardship. Tackling digital disadvantage was of critical importance in addressing disparities in children and young people's engagement with home schooling and their ability to socialise during lockdowns.

Listen to children and young people

Children and young people who took part in qualitative studies had many practical suggestions about how policy development and decision-making could be improved in the pandemic and in the future. The importance of listening to their ideas at a group level was mirrored by calls to improve opportunities for children and young people to have a say in their own lives. Their experiences of the pandemic were so diverse that group-level recommendations risk missing the nuance of their individual needs. Many studies called for increased vigilance from families, schools, communities and the children's workforce to listen carefully to children and identify and address their needs.

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Appendix 1: Inclusion and exclusion criteria

For screening and quality appraisal of PHA summary of evidence

Inclusion criteria

1. Studies included in PHA iterative summary of evidence
2. Focus on the impact of the non-medical aspects of the Covid-19 pandemic and associated public health measures (e.g. lockdowns, school closures)
3. On one or more outcomes for children and young people (e.g. physical health, activity, access to healthcare and equipment, mental health, language development)
4. Peer review journal article OR authored by recognised organisation
5. Findings relevant to Northern Ireland context
6. Rationale for sampling frame and sample size

Exclusion criteria

1. Opinion pieces, comments or letters to Editor

For review of systematic reviews

Databases to search

- Medline (OVID), PsycInfo (OVID), ASSIA (ProQuest)

Concepts for search

- Infancy/childhood/adolescence
- Covid-19/coronavirus/pandemic [NB focus on lockdown and public health measures rather than on infection]
- Systematic review

Inclusion criteria

1. Systematic reviews/ meta-analyses
2. Published since 2020
3. in English language peer-reviewed journal
4. Included studies focus on the impact of the non-medical aspects of the Covid-19 pandemic and associated public health measures (e.g. lockdowns, school closures)

5. On one or more outcomes for children and young people (e.g. physical health, activity, access to healthcare and equipment, mental health, language development)

Exclusion criteria

1. Opinion pieces, comments or letters to Editor
2. Scoping reviews
2. Protocols
3. Focused on the impacts of Covid-19 infection rather than the impacts of lockdown (e.g. psychosocial impacts of long Covid would be excluded)
4. Recommendations not relevant for Northern Ireland health and social care context (e.g. because all included studies carried out outside the UK) [including conflict zones, Low-to-Middle-Income countries (LMICs)]

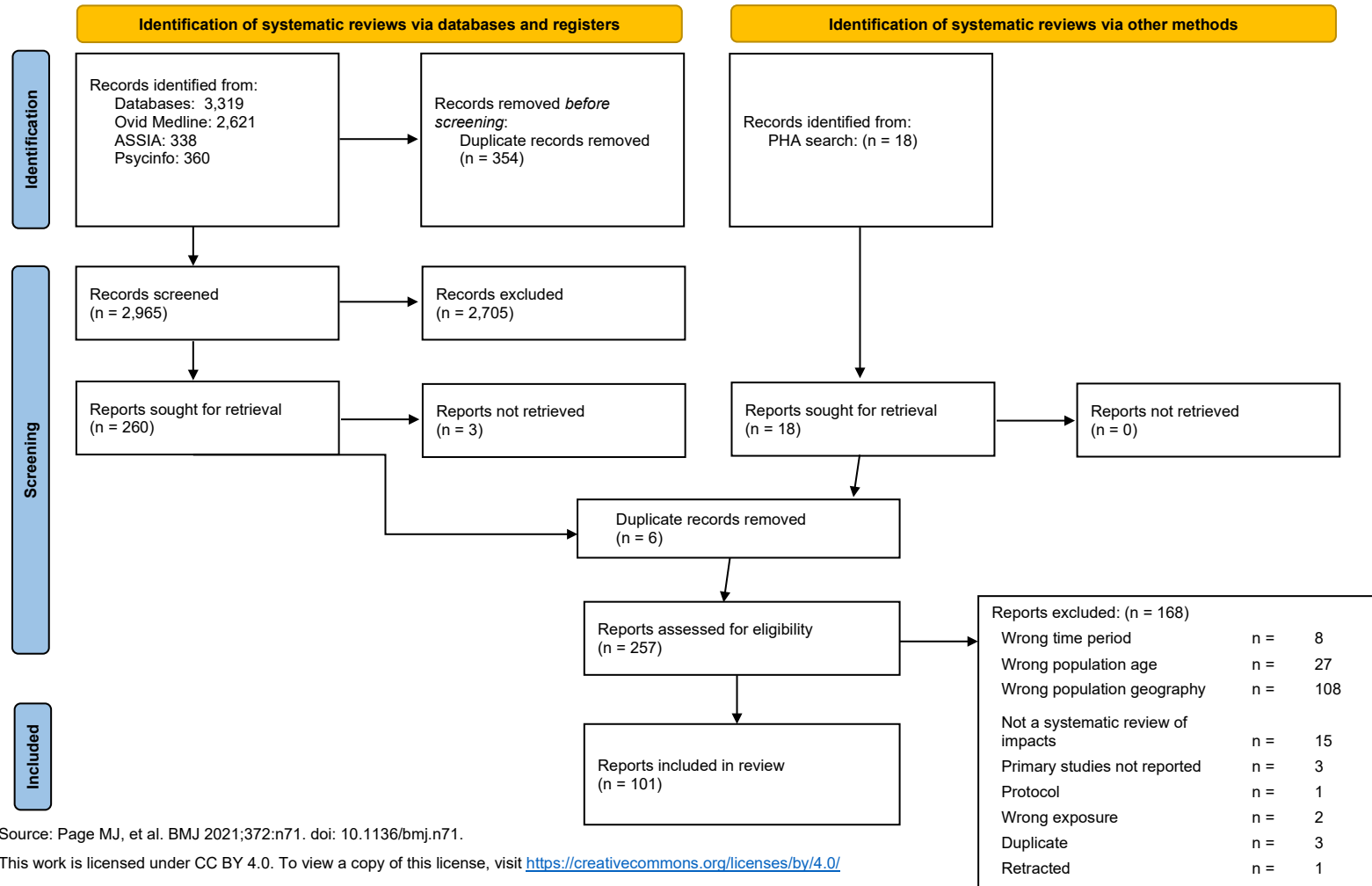
Example search terms

Ovid MEDLINE(R) ALL <1946 to April 18, 2025>

#	Query
1	exp adolescent/ or exp child/ or exp infant/
2	(child* or youth* or adolescen* or teenage* or offspring or infan* or baby or babies or (young adj person*) or (young adj people) or youth or boy* or girl* or kid* or preteen* or preadolesc* or juvenil* or schoolchild* or teen* or young adolesc* or (young adj boy) or (young adj girl) or toddler or paediatric or pediatric or pupil).tw.
3	exp "scoping review"/ or exp "systematic review"/
4	(scoping review or systematic review or rapid review or meta-analysis or meta analysis or umbrella review or narrative synthesis or narrative review).tw.
5	exp COVID-19/ or exp Coronavirus Infections/ or exp SARS-CoV-2/ or Communicable disease control/ or quarantine/
6	(Covid-19 or Covid 19 or Covid or nCov or coronavirus or pandemic* or lockdown or infection control or stay at home or quarant* or outbreak or social distanc* or school clos* or remote learning).tw.
7	1 or 2
8	3 or 4
9	5 or 6
10	7 and 8 and 9

11	(comment or editorial or letter).pt.
12	10 not 11
13	limit 12 to (english language and yr="2020-Current")

Appendix 2: PRISMA diagram



Appendix 3: Summary details of included primary studies

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Adegboye	2021	142	5-10 during pandemic	Convenience	Longitudinal	September 2017 to March 2020; July 2020 to September 2020	Child mental health difficulties	UK (Wales)	7/10 - higher score = better quality (Madigan Racine et al., 2023); 6/10 Miao et al., 2023. Deng: high risk of bias. Miao: 6
Anders	2022	4255	11 to 18	Representative	Longitudinal	November 2020 to January 2021	Educational experiences and outcomes	UK (England)	N/A
Andrew	2020	5582	4 to 15	Representative	Cross-sectional (multi-cohort comparison)	2014 to 2015 (months not stated); April 2020 to June 2020;	Home learning	UK (England)	Not reported
ARK	2021a	2242 (9% response rate)	10 to 11	Representative	Cross-sectional	October 2020 to February 2021	Impact of Covid-19	UK (NI)	N/A
ARK	2021b	2069 (42.1% response rate)	16	Representative	Cross-sectional	May 2021	Impact of Covid-19	UK (NI)	N/A

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
ARK	2022	2073 (41.5% response rate)	16	Representative	Cross-sectional	April 2022 to May 2022	Impact of Covid-19 and other outcomes	UK (NI)	N/A
Asbury	2020	241 (parents/carers)	5 to 18	Convenience	Cross-sectional	March 2020 to April 2020	General impacts	UK (England, Scotland & Wales)	4 (out of five, lower score = higher quality) (Samji et al., 2022)
Asbury	2023	478	5 to 18	Convenience	Longitudinal	March 2020 to October 2020	Mental health		N/A
Ashworth	2022	240	8 to 16	Healthcare records	Case study of health service (pre- and during-covid)	March 2019 to March 2021	Emergency department attendance for suicidal crisis	UK (England)	Madigan: 7 out of 10
Ashworth	2022	11	11 to 13	Convenience	Cross-sectional	September 2020 to December 2020	Impact of COVID-19; Experiences of schooling; mental health and wellbeing	UK (England)	Schiera: not done
Balestrini	2021	86	under 18	Convenience	Cross-sectional	June 2020 to July 2020	Seizures, COVID-19 illness	UK and Ireland	Low quality (Dal-Pai et al, 2023)
Banerjee	2021	53	School age	Convenience	Cross-sectional	July 2020 to October 2020	Emotional wellbeing, anxiety	UK (England)	Not reported
Banks	2020	1851	16 to 24	Representative	Time trend analysis	2009 to 2019 (months not stated); April 2020	Psychological distress	UK	Good quality (Kauhanen et al., 2023)

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Bannermann	2021	13 parents	Under 18	Convenience	Cross-sectional	April 2020	Impacts of restrictions on PICU	UK (Scotland)	7/10 positive, 3/10 no (Krewulak et al., 2024)
Barr	2022	781 total of which 47.4% aged 16 to 24	16+	Convenience	Cross-sectional	June 2020	Video game-play, wellbeing	UK	50/100 - higher = better
Basterfield	2022	178	8 to 10	Convenience	Longitudinal	October 2019; November 2020 to December 2020	Physical fitness, BMI, HRQOL	UK (England)	Moderate quality (11/16)
Baxter	14	329	Under 18	Healthcare records	Case study of health service (pre- and during-covid)	March 2019 to May 2019; March to May 2020	Acute paediatric orthopaedics and trauma	UK	High risk of bias (Levy et al., 2023)
Bayrakdar	2023	3150	16	Representative	Cross-sectional	April 2020	Education experiences	UK	N/A
BBC Children in Need	2020	Not specified	0 to 25	Convenience	Cross-sectional	April 2020 to May 2020	Mental health and wellbeing; social relationships; education access; physical health	UK	N/A
Becares	2022	1962	19	Representative	Longitudinal	May 2020	Health, mental health and loneliness	UK	High quality (O'Shea et al., 2024)
Berry	2021	159 parents and children	4 to 18	Convenience	Longitudinal	March 2020 to July 2020; September 2020 to	Stress, wellbeing, coping	Ireland	Medium risk of bias (Stracke et al., 2023). Campione-Barr: n/a

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
						October 2020			
Bethell	2020	838 cases - data reported by 101 surgeons	8 to 13	Healthcare records	Case study of health service (during covid)	April 2020 to May 2020	Treatment strategy for acute appendicitis	UK and Ireland	17/24 = high risk of bias
Bethell	2022	2002 in pandemic, 605 pre-pandemic	1 to 15	Healthcare records	Case study of health service (pre- and during-covid)	March 2017 to June 2017; April 2020 to July 2020	Treatment strategy for acute appendicitis	UK and Ireland	13/24 (Miscia et al., 2023) - higher = better
Bhopal	2020	407	0 to 16	Healthcare records	Case study of health service (before and during-covid)	January 2018 to April 2018; January 2019 to April 2019; January 2020 to April 2020	Child Protection Medical Examinations	UK (England)	Viner = High quality

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Bignardi	2020	168	7 to 11	Convenience	Longitudinal	June 2018 to September 2019; April 2020 to June 2020	Depressive symptoms, internalising symptoms, anxiety symptoms	UK (England)	Moderate (Chen, Wang et al., 2025); Medium risk of bias (Newlove-Delgado et al., 2023); Very high risk of bias (Ludwig-Walz et al., 2023; Ludwig-Walz et al., 2022); 6/10 (Madigan, Racine et al., 2023); Fair quality (Kauhanen et al., 2023). Panchal: 6/10 - higher = better quality. Theberath = high quality. Ludwig-Walz 2022: serious risk of bias

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Bingham	2021	949 (634 also collected data on physical activity pre-pandemic)	9 to 13	Locally representative	Longitudinal	2017 to March 2020; May 2020 to July 2020	PA, sedentary behaviours, screen-time, sleep, activity (frequency, duration, type, and place) away from home environment were all measured by child self-report	UK (England)	Peng = high quality. Ludwig-Walz Siemens: high risk of bias
Blainey	2021a	250000 test scores from primary school pupils	School years 1 to 6	Education records	Repeated cross-sectional (pre- and during-covid)	Autumn term 2019; Autumn term 2020	Attainment	UK (England)	Serious risk of bias
Blainey	2021b	150000 test scores from primary school pupils	Years 1 to 6	Education records	Repeated cross-sectional (pre- and during-covid)	Spring 2020; Spring 2021	Attainment	UK (England)	Serious risk of bias
Bourke	2023	74	4 - 8 years	Convenience	Cross sectional (experimental task)	Not stated	Language processing; Listening comprehension; Reading ability; Emotion recognition; Socio-emotional competence	UK (England)	2 = low quality
Broomfield	2021		Under 18	Healthcare records	Case study of health service (pre- and during-covid)	January 2019- January 2020 and February 2020-	Admissions and severity of eating disorder	UK (England)	Madigan: 6/10

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
						February 2021			
Brown	2020	1219 breastfeeding mothers were surveyed in the early pandemic	<1	Convenience	Cross-sectional	May 2020 to June 2020	Breastfeeding	UK	No overall study quality rating given
Browne	2021	1098 (across US & UK)	5 to 18	Convenience	Longitudinal	May 2020; July 2020	COVID-19 disruption, psychological distress, family functioning, parenting, and child mental health	International (UK & US)	Medium risk of bias (Stracke et al., 2023)
Brzyska	2021	Not stated	Not stated	Education records	Repeated cross-sectional (pre- and during-covid)	May 2018 to July 2018, May 2019 to July 2019, Sep 2020 to October 2020	Educational attainment	UK (England & NI)	Not rated
Burgess	2022	9179	4 to 16 in March 2020	Convenience	Longitudinal	can't find	Mental health	UK (England)	N/A

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Byrne	2023b	312 - cohort 1, 605 - cohort 2	24 months	Locally representative	Longitudinal	January 2010 to December 2013; March 2022 to May 2022	Developmental milestones	Ireland	O'Connor - not done
Byrne et al., 2023) a	2023a	309 - cohort 1, 1629 - cohort 2	12 months	Locally representative	Longitudinal (multi-cohort comparison)	January 2009 to December 2012; March 2021 to May 2021	Developmental milestones	Ireland	O'Connor - not done
Campbell	2022	128	9 to 17	Healthcare records	Case study of health service (pre and during-covid)	January 2018 to August 2021	Referrals to eating disorder CAMHS	Ireland	Madigan: 8/10
Carers Trust	2020	961	12 to 25	Convenience	Cross-sectional	June 2020	Time spent caring; mental health and wellbeing; education experiences		Not reported
Carr	2021	1.3 million (13.5 million patients in total)	10 to 17	Healthcare records	Trend analyses	January 2019 to September 2020	Primary care-recorded self-harm	UK	Low risk of bias (Sahoo and Patra, 2023); High/moderate quality (Steeg et al., 2022)

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Chavasse	2020	Not reported	1 to 17	Healthcare records	Case study of health service (pre- and during-covid)	February 2017 to May 2017; February 2018 to May 2018; February 2019 to May 2019; February 2020 to May 2020	Acute hospital presentations with asthma	UK (England)	High risk of bias (Levy et al., 2023)
Children's Society	2020	2000 (parents + children) survey responses; 150 consulted	10 to 17	Representative	Cross sectional (retrospective)	April 2020 to June 2020	Wellbeing	UK	Viner = Low quality
Children's Society	2022	2000 (plus parent/carer)	10 to 17	Representative	Cross-sectional	April 2022 to June 2022	Wellbeing	UK	N/A
Children's Society	2021	2000 (plus parent/carer)	10 to 17	Representative	Cross-sectional	April 2021 to June 2021	Wellbeing	UK	N/A
Children's Society	2020	2000 (plus parent/carer)	10 to 17	Representative	Cross-sectional	April 2020 to June 2020	Wellbeing	UK	N/A

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Children's Society	2019	2400 (plus parent/carer)	10 to 17	Representative	Cross-sectional	April 2019 to June 2019	Wellbeing	UK (England)	N/A
Children's Society	2018	2000 (plus parent/carer)	10 to 17	Representative	Cross-sectional	April 2018 to June 2018	Wellbeing	UK (England)	N/A
Clarke	2021	20	3 to 5	Convenience	Cross-sectional (retrospective)	July 2020 to August 2020	eating, activity and sleep	UK (England)	Eaton: can't access supplementary materials. Kharel: good quality
Colvin	2021	47 in covid, 20 pre-covid	Under 16	Healthcare records	Case study of health service (pre and during-covid)	April 2019 to June 2019; April 2019 to June 2020	Success rate of non-operative management	UK (NI)	14/24 (Miscia et al., 2023) - higher = better
Cooper	2021	894 (443 attended both waves)	11 - 16 years	Convenience	Longitudinal	March 2020 to July 2020; September 2020 to October 2020	Loneliness, distress	UK	Schiera: not done. Farrell: 6/10 - higher = better quality
Corr	2021	32 (professionals and practitioners)	0 to 25	Convenience	Cross-sectional	February 2021 to March 2021	Planning and delivery of services to children and young people	UK (NI)	N/A

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Dann	2020	21766	Not reported	Healthcare records	Case study of health service (pre- and during-covid)	March 2018 to April 2018; March 2019 to April 2019; March 2020 to April 2020	ED attendance	Ireland	High risk of bias (Levy et al., 2023)
Dass	2022	72 in 2020, 62 in 2019	Under 16	Healthcare records	Case study of health service (pre and during-covid)	April 2019 to August 2019; April 2019 to August 2020	Treatment pathway and patient outcomes	UK and Ireland	14/24 (Miscia et al., 2023) - higher = better
Davies	2021	189	8 to 36 months	Convenience	Longitudinal	March 2020 to June 2020; November 2020 to December 2020	Language ability, executive function	UK	Good (Alcon et al., 2024)
DelPozo-Banos	2022	Not stated	10 to 24	Healthcare records	Case study of health service (pre and during-covid)	January 2016 to March 2021	Healthcare contact for self-harm	UK (Wales)	High/moderate quality (Steeg et al., 2022)
Department for Education	2021a	Various	Primary and secondary school pupils	Education records		Autumn 2020; Spring 2021	Educational attainment	UK (England)	Not rated
Department for Education	2021b	Various	Primary and secondary school pupils	Education records		Autumn 2020; Spring 2021	Educational attainment	UK (England)	Betthausen: Serious risk of bias

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Department of Education	2022	Not stated	Pre-school and school age	Representative	Cross-sectional	January 2022 to June 2022	Delivery of remote learning	UK (NI)	N/A
Department of Health	2023	Not stated	Under 18	Healthcare records	Case study of social care service (pre and during covid)	September 2019; December 2019; April 2020 to October 2023	Children on the Child Protection Register; Children in care; Referrals to social services	UK (NI)	N/A
Department of Health	2025	Not stated	Under 18	Healthcare records	Case study of social care service (pre and during covid)	April 2020 to June 2025	Children on the Child Protection Register; Children in care; Referrals to social services; Child Protection Referrals	UK (NI)	N/A
Dewa	2021	796 quantitative (641 with data on mental health), 18 qualitative	16 to 24	Convenience	Cross-sectional	April 2020	Mental health status and coping strategies	UK	Deng: at least a score of 7
Ding	2023	9179	4 to 16 in March 2020	Convenience	Longitudinal	March 2020 to June 2021	Mental health	UK	N/A

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Dodd	2022	427 parents (study 1); 1919 parents (study 2)	5 to 11	Study 1: Convenience. Study 2: representative	Cross-sectional	April 2020	Internalising and externalising problems,	Study 1 NI Study 2 UK	High quality (Levante et al., 2023)
Driscoll	2023	429	Under 18	Healthcare records	Case study of health service (pre and during-covid)	May 2019 to Dec 2019; Jan to Dec 2020, Jan to Dec 2021	Referrals to community ED services, ED diagnosis and hospitalisation	Ireland	Madigan: 8/10
Education and Training Inspectorate	2021a	483 pre-schools (survey), 66 pre-school leaders (focused discussions)	3 and 4	Convenience	Cross-sectional	January 2021 to February 2021	Remote learning, safeguarding, professional development	UK (NI)	N/A
Education and Training Inspectorate	2021b	616 primary schools (77% of all) (survey); 103 teaching and non-teaching school leaders (focused discussions)	4 to 11	Convenience	Cross-sectional	January 2021 to February 2021	Remote learning, safeguarding, professional development	UK (NI)	N/A

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Education and Training Inspectorate	2021c	159 post-primary schools (82% of all) (survey), 40 schools (focused discussions)	11 to 18	Convenience	Cross-sectional	January 2021 to February 2021	Remote learning, safeguarding, professional development	UK (NI)	N/A
Education and Training Inspectorate	2021d	31 EOTAS (84% of all) (survey), 14 centre leaders (focused discussions)	Not stated	Convenience	Cross-sectional	January 2021 to February 2021	Remote learning, safeguarding, professional development	UK (NI)	N/A
Education and Training Inspectorate	2021e	24 special schools (60% of all) (survey), 6 school leaders (focused discussions)	Not stated	Convenience	Cross-sectional	January 2021	Remote learning, safeguarding, professional development	UK (NI)	N/A
Essau	2021	904	19 at follow-up (May 2020), 17 at baseline	Representative	Longitudinal (predictive)	January 2018 to March 2019; May 2020	Mental health	UK	Alamolhoda: 8 = good. DiFazio: n/a

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Evans	2021	254	18 - 35	Convenience	Longitudinal	Autumn 2019; April 2020 to May 2020	Mental health, wellbeing, sleep, alcohol use	UK (England)	Botella: low risk of bias. Na: moderate quality
Family Fund	2021a	602	0 to 25	Convenience	Repeated cross-sectional	March 2020; May 2020; August 2020; December 2020; February 2021	Support, finance, health and wellbeing	NI	N/A
Family Fund	2021b	17,366	0 to 25	Convenience	Repeated cross-sectional	March 2020; May 2020; August 2020; December 2020; February 2021	Support, finance, health and wellbeing	NI	N/A
Fisher	2023	Not stated	Not stated	Healthcare records	Case study of health service (before and during-covid)	April 2019 to April 2023	Waiting list for planned paediatric hospital care and community care; GP and mental health service referrals	England	N/A
Fonfe	2021	17 neonatal specialty trainee doctors	<1	Convenience	Cross-sectional	October 2020	Impacts of visiting restrictions in neonatal units	UK	2/10 positive, 7/10 can't tell, 1/10 no(Krewulak et al., 2023)
Gallagher	2020	194 parent carers, 58 adolescents	4 to 18	Convenience	Longitudinal	April 2020 to May 2020	Mental health and wellbeing; behavioural difficulties	Ireland	Viner = Medium quality

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Garfield	2021	50 parents	< 6 months	Convenience	Cross-sectional	August 2020 to September 2020	Wellbeing, developmental care, health of baby, practical considerations and communication of visiting access	UK (England)	4/10 positive, 3/10 can't tell, 3.10 no (Krewulak et al., 2024). Kane: n/a
Garstang	2020	200	0 to 18	Healthcare records	Case study of health service (before and during-covid)	February 2018 to June 2018; February 2019 to June 2019; February 2020 to June 2020	Child protection medical assessment referrals	UK (England)	Viner = High quality; Marmor = not rated
Gato	2022	1934 (96 UK)	18to 29	Convenience	Cross-sectional	April 2020 to August 2020	Mental health, psychosocial impacts	International (UK)	Not rated
Gennings	2022	9	11 to 18	Convenience	Cross-sectional	Not stated	Experiences of leisure	UK (England)	N/A
Geraghty	2021	61 children and young people, parents/carers and practitioners	5 to 21	Convenience	Longitudinal	October 2020 to December 2020; February 2020 to March 2021	Impact of COVID-19	UK (NI)	N/A

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Gorny	2021	N/A (descriptive)	Under 18	Healthcare records	Case study of health service (covid period only)	March 2020 to May 2020	Prevalence of suicidal behaviours	UK (England)	60% yes in Joanna Briggs Institute Critical Appraisal Tool (Bersia et al., 2022)
Gosling	2023	11	18 to 30	Convenience	Cross-sectional	March 2020 to February 2021	Self-harm	UK	Not rated
Goudie & McIntyre	2021	1064 (Sep 2020) / 1308 (Jan/Feb 2020)	7 to 17	Representative	Repeated cross-sectional	March 2020; May 2020; July 2020; August 2020; January 2021	Food insecurity	UK	Not stated
Gray	2020	703	16 to 24	Convenience	Repeated cross-sectional	April 2018 to March 2019; June 2020 to July 2020	Psychological distress, psychological wellbeing	UK (Wales)	Good quality (Kauhanen et al., 2023)
Hall, Marston	2023	91	9 to 17	Convenience	Cross-sectional	May 2018 to September 2020	Tic symptoms	UK (England)	Moderate risk of bias
Hall, Partlett	2023	6507	4 to 16	Convenience	Longitudinal	March 2020 to May 2020	Parent reported SDQ and Pandemic Anxiety Scale	UK	Moderate risk of bias
Hamilton	2023	6 (7 parents/carers)	15 to 27	Convenience	Cross-sectional	October 2020 to February 2021	General impacts	UK	N/A

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Hampton	2020	5165	Not reported	Healthcare records	Case study of health service (pre- and during-covid)	March 2019 to April 2019; March 2020 to April 2020	Rates, mechanisms and types of injuries together with their management	UK	High risk of bias (Levy et al., 2023)
Harrop	2022	104 parents (reporting on 176 children)	2 to 27	Convenience	Cross-sectional	November 2020 to August 2021	Impact of COVID-19	UK	N/A
Hartas	2025	Approx. 13,000	16	Representative	Cross-sectional	September 2021 to April 2022	Mental health	UK	N/A
Hartas	2024	2017 to 2019: 2682. July 2020: 1411. Nov 2020: 1432. March 2021: 1388.	10 to 16	Representative	Longitudinal	2016 to 2019 (months not stated); July 2020; November 2020; March 2021	Mental health and wellbeing	UK	N/A
Henein	2022	58	8 to 17	Healthcare records	Case study of health service (pre- and during-covid)	March 2018 to October 2018; March 2019 to October 2019; March 2020 to October 2020	OCD symptoms, trajectories and quality of life	UK (England)	Fair quality (Luginaah et al., 2023)
Holt-White	2023	11,523	17 to 18	Representative	Cross-sectional	Not stated	Mental and physical health	UK (England)	N/A

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Holt-White 2022	2022	12,828	16 to 17	Representative	Cross-sectional	September 2021 to April 2022	Mental health and wellbeing, support from school, motivation and plans for future	UK (England)	N/A
Hu	2021	886	10 to 16	Representative	Longitudinal	2009 to February 2020 (month not stated); July 2020	Mental health and wellbeing	UK	Alamolhoda: 9 = very good. DiFazio: n/a. Newlove-Delgado: medium risk of bias. Rogers: not reported, met at least two of three criteria
Hughes	2020	8912	0 to 14	Healthcare records	Case study of health service (pre- and during-covid)	January 2019 to April 2020	Emergency department attendances	UK (England)	High risk of bias (Levy et al., 2023)
Isba	2020	2053 (2019), 1007 (2020)	Under 16	Healthcare records	Case study of health service (pre- and during-covid)	January 2019 to May 2019; January 2019 to May 2020	Paediatric emergency department attendances and admissions	UK and US	7/10 (Cheng Huang et al., 2023); high risk of bias (Levy et al., 2023)

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James	2021	2018=1068, 2019=1150, 2020=1068	8 to 11	Convenience	Repeated cross-sectional	March 2018 to June 2018; March 2019 to June 2019; April 2020 to June 2020	Physical activity, screen time, diet and dental health, well-being, school competency	UK (Wales)	Brakspear: high study quality. Peng = high quality. Woods = 5/10, higher = better quality. Ludwig-Walz Siemens: some concerns
Jester	2021	55	15 to 18	Convenience	Longitudinal	April 2020 to June 2020	Sleep, mental and physical health, screen time	UK (England)	Campione-Barr: n/a. Pang = 8/10 - higher = better quality. Peng = high quality
Jones	2021	161	16 to 25	Convenience	Cross-sectional	May 2020 to July 2020	Anxiety, depression, impact of COVID-19	UK	Not rated
Jones	2023	161	16 to 25	Convenience	Cross-sectional	May 2020 to July 2020	Mental health	UK	Moderate quality (O'Shea et al., 2024)
Karavadra	2022	1451 mothers of which 230 postpartum	<1	Convenience	Cross-sectional	May 2020	Mothers' healthcare experiences	UK	High (Palo et al., 2022)
Kaya	2022	108	16 - 21 years	Convenience	Cross-sectional (retrospective)	July 2020 to August 2020	Depressive symptoms	UK	Magis-Weinber 2025: not done
Kelly	2020	24	18 to 25	Convenience	Cross-sectional	July 2020 to September 2020	General impact	UK (NI)	N/A

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Kemerer	2021	139	Under 18	Healthcare records	Case study of health service (pre- and during-covid)	March 2019 to April 2019; March 2020 to April 2020	ED mental health presentations	Ireland	Madigan: 7 out of 10
Knowles	2022	1074	12 to 18	Locally representative	Longitudinal cohort study	September 2016 to July 2017; September 2017 to July 2018; September 2018 to July 2019; May 2020 to August 2020	Overall and specific mental distress	UK (England)	Serious risk of bias (Ludwig-Walz et al, 2023; Ludwig-Walz et al., 2022)
Kuhn	2022	1100 children 5-8, 2800 young people 10-15, 1400 young adults (16-19)	5 to 19	Representative	Longitudinal	2017/18, 2018/19 and multiple points during the pandemic	Mental health	UK	N/A
Kung	2023	1870	16 to 24	Representative	Longitudinal	2018, 2019, April 2020 to September 2021	Loneliness	UK	N/A
Levita	2022	2002	13 - 24	Convenience	Cross-sectional (retrospective)	April 2020	Anxiety and depression	UK	Viner = Medium quality

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Lloyd	2023	1995	16	Representative	Cross-sectional (retrospective)	May 2021	Mental health	UK (NI)	N/A
Mann	2021	147	0-17	Healthcare records	Case study of health service (pre- and during-covid)	March 2019 to May 2019; March to May 2020	Burns	UK (England)	High risk of bias (Levy et al., 2023)
Mansfield	2021	11765	12 to 21	Convenience	Cross sectional (retrospective)	June 2020 to July 2020	Anxiety, depression, wellbeing	UK (England)	Moderate (Chen, Wang et al., 2025). Deng: low risk of bias. Madigan: 7/10
Mansfield	2022	phase 1 (N = 6419) acted as controls. In phase 2, participants (N = 5031) were exposed to the COVID-19 pandemic	year 7 to 9 at baseline	Convenience	Natural experiment	September 2018 to October 2018; September 2019 to October 2019; January 2020 to March 2020; February 2021 to April 2021	Depressive symptoms, externalizing difficulties, life satisfaction	UK (England)	N/A
Marino	2022	107 parents	Infants/neonates	Convenience	Cross-sectional	July 2020 to September 2020	Impact on parental bonding	UK	7/10 yes, 2/10 no, 1/10 unclear

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Martineau	2023	165 (136 parents)	4 to 11	Convenience	Cross-sectional	May 2021 to July 2021	Mental health and wellbeing	UK	N/A
McDonald	2020	Not stated	Not stated	Healthcare records	Time trends	January 2019 to April 2019; January 2020 to April 2020	Childhood vaccination uptake	UK (England)	7 yes, 1 no, 2 n/a, 1 can't tell, 1 not reported
McDonnell	2022	172,825 admissions	0-15	Healthcare records	Case study of health service (pre- and during-covid)	February 2018 to February 2021	Paediatric hospital admissions	Ireland	High risk of bias (Levy et al., 2023). Madigan: 9/10
McDonnell	2020	21545 in 2020, 39,772 for 2018/2019	under 16	Healthcare records	Case study of health service (pre and during covid)	March 2018 to May 2018; March 2019 to May 2019; March 2020 to May 2020	ED attendance	Ireland	High (Palo et al., 2022)
McElroy	2020	4793 parents, 698 adolescents	4 to 16 (Reported by parents) 11 to 17 (self-report)	Convenience	Cross-sectional	March 2020 to April 2020	Pandemic-related anxiety (disease and consequences)	UK	4 (out of five, lower score = higher quality) (Samji et al., 2022). Jones: 3 (range of 0 to 4, higher score = higher quality)
McGlacken-Byrne SM	2021	47 (30 in first period, 17 in second)	2 to 16	Healthcare records	Case study of health service (pre- and during-covid)	July 2019 to March 2020; March 2020 to June 2020	New-onset type 1 Diabetes	UK (England)	7 = good (Alfayez). Mereligo-Rodriguez = 7 (low risk of bias)

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
McKinlay	2022	37	13 - 24	Convenience	Cross-sectional	June 2020 to January 2021	Education disruption; Social contact and relationships; Mental health and wellbeing	UK	Magis-Weinber 2025: not done
McLoughlin	2021	85	16-17	Healthcare records	Case study of health service (pre- during- and post-covid)	March 2019 to May 2019; March 2020 to May 2020; March 2021 to May 2021	Prevalence of suicidal ideation	Ireland	80% yes in Joanna Briggs Institute Critical Appraisal Tool (Bersia et al., 2022)
McMahon	2021	797 parents	4 to 12	Convenience	Cross-sectional (retrospective)	April 2020 to May 2020	Coping with school closures, mental health	Ireland	Good quality (Lehmann et al., 2021). Medium risk of bias (Stracke et al., 2023)
Mendolia	2022	21,269 observations across 4 waves of data	10 to 15	Representative	Longitudinal	July 2020; September 2020; November 2020; March 2021	Mental health and wellbeing	UK	N/A
Metherell	2021	1387	10 to 15	Representative	Longitudinal	January 2017 to 2019 (month not stated); July 2020; November 2020; March 2021	Mental health	UK	Medium risk of bias (Newlove-Delgado et al., 2023)

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Miall	2023	9272	5 to 11	Representative	Time trend analysis	2011 to 2019 (months not stated); July 2020; September 2020; March 2021	Mental health and wellbeing	UK	N/A
Milanovic	2022	700,000 primary school tests	School years 1 to 6	Education records	Repeated cross-sectional (post-covid)	Spring 2021; Spring 2022	Attainment	UK (England)	Serious risk of bias
Milanovic	2023	Not stated	Not stated	Education records	Repeated cross-sectional (pre- and during-covid)	2019 to 2022 (months not stated)	Attainment, academic well-being	UK (England)	N/A
Moon	2021	Not stated	Under 18	Healthcare records	Case study of health service (pre- and during-covid)	April 2020 to March 2021 and four preceding years	Diabetes mellitus	UK (England)	Some risk of bias (D'Souza et al., 2023)
Moore	2022	4032	10 and 11	Representative	Repeated cross-sectional	2019 (months not stated); April 2021 to July 2021	Emotional and behavioural difficulties, life satisfaction, school connectedness, feelings about transition to secondary	UK (Wales)	32/36 - higher = better quality

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Morgul	2020	927	5 to 11	Convenience	Cross-sectional (retrospective)	July 2020 to August 2020	Child emotional and behavioural symptoms, family coexistence, screen use, physical activity, sleep	UK	Poor quality (Lehmann et al., 2021). Kharel: poor quality. Panchal: 5/10 - higher = better quality
Morris	2021	176 (54 at T2)	3 to 12	Convenience	Longitudinal	August 2020 to October 2020	Physical activity; social-communicative skills	UK	3/8 Low quality (Dal-Pai Wolff et al., 2024)
Morris	2022	Not stated	Not stated	Healthcare records	Case study of health service (pre- and during-covid)	January 2016 to December 2021	COVID-19 illness; Long-term conditions; Referrals to hospital care or mental health services; Community care; Waiting list for planned paediatric hospital care	UK	N/A
Munirahman	2020	93 (42% of total study) (parents and carers)	<1	Convenience	Cross-sectional	May 2020 to August 2020	Impact of restricted visiting arrangements on parents' ability to visit, bond with and care for their babies	UK and US	Moderate study quality (Hugelius et al., 2024)' 4/10 positive, 4/10 can't tell, 2/10 no (Krewulak et al., 2024), Adesanya: no overall study

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
									quality rating given
Murphy	2020	Not reported	Not stated	Healthcare records	Case study of health service (pre- and during-covid)	January 2017 to April 2020	Rates of referral, injury and surgery	UK (England)	Not rated
Murray	2021	3901 parents, 3301 12-year olds, 2277 young adults	12 & 22	Representative	Longitudinal	December 2020	Activity, mood, health	Ireland	high quality
National Autistic Society	2020	1810 from autistic people, 2422 from parents and family members	Not specified	Convenience	Cross-sectional	June 2020 to July 2020	Mental health, loneliness, education, going out of the house,	UK	N/A
Newbury	2022	13	14-16	Convenience	Longitudinal	January 2020; April 2020;	Nutritional practices	UK (England)	Na: moderate quality

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
						September 2020			
Newlove-Delgado	2022	2,866	7 to 24	Representative	Longitudinal	April 2022 to May 2022	Mental health, sleep, loneliness, health behaviours, education and employment, services and support	UK (England)	N/A
Newlove-Delgado	2021	3,667	6 to 23	Representative	Longitudinal	February 2021 to March 2021	Mental health, sleep, loneliness, family aspects, access to learning resources, changes in household circumstances, support	UK (England)	N/A
Newlove-Delgado	2023	2,370	8 to 25	Representative	Longitudinal	February 2023 to April 2023	Mental health		N/A
Ng	2020	1214	12 to 18	Convenience	Cross-sectional (retrospective)	April 2020	Physical activity	Ireland	Peng = high quality
NICCY	2021a	74 in focus groups (also reported ARK data)	Not stated	Convenience	Cross-sectional	October 2020 to May 2021 (their data collection - report lots of different data from different years)	Poverty; physical and mental health; education; leisure	UK (NI)	N/A

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
						throughout report)			
NICCY	2021b	Not stated	Not stated	Study 1: Healthcare records. Study 2 & 3: Convenience	Study 1: Case study of a health service (pre- and during-covid). Study 2: Cross-sectional	April 2017 to July 2021	Healthcare waiting time	UK (NI)	N/A
Nicholson	2020	1044 parents	Under 16	Convenience	Cross-sectional	June 2020	Parents' views about attending unscheduled healthcare for their children	Ireland	High (Palo et al., 2022)
Nikolaidis	2022	491 UK children (780 in total)	5 to 18	Convenience	Longitudinal	April 2020; May 2020; November 2020	Mental health and wellbeing	International (UK & US)	Low quality
Nonweilier	2020	453	4 to 15	Convenience	Cross-sectional	April 2020 to June 2020	Mental health	UK	Panchal: 8/10 - higher = better quality
NSPCC	2020	Not specified	Not specified	Convenience	Cross-sectional	January 2020 to October 2020	Education experiences, safety and support	UK	N/A
Oakes	2023	9180	4 to 16 in March 2020	Convenience	Longitudinal	March 2020 to April 2022	Mental health	UK	N/A

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
O'Connor	2020	4612 parents (2509 primary, 1905 post-primary, 198 special)	School age	Convenience	Cross-sectional	April 2020 to May 2020	Home schooling	UK (NI)	N/A
O'Connor Bones	2022	198	School age	Convenience	Cross-sectional	April 2020 to May 2020	Parental involvement in schooling	UK (NI)	N/A
Odd	2021	326	under 18	Administrative records	Time trends	April 2019 to December 2020	Suicide	UK (England)	Low risk of bias (Newlove-Delgado et al., 2023). Vardi: not done
Ofsted	2020	Not specified				November 2020	Behaviour; Learning;	UK	N/A
Ofsted	2022						Personal, social, physical, emotional, language development		N/A
O'Hagan	2023	9	11 to 18	Convenience	Cross-sectional	May 2020 to July 2020	Emotional and social well-being, home schooling, coping strategies and support,	UK (NI)	N/A

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
O'Kane	2021	281 (survey) 16 (interviews) -only 94 completed questionnaire in full at follow-up	12 to 14	Convenience	Longitudinal	September 2019 to October 2019; May 2020 to June 2020	physical activity (PA), mental health, sleep, and social media use	Ireland	Alamolhoda: 7 = good
Oliver	2021	6 (plus 17 parents)	Majority over 10	Convenience	Cross-sectional	December 2020	Experiences of lockdown, home-schooling, virtual learning and return to school	UK (England)	N/A
O'Sullivan	2021	48 families (45 children and young people)	Not specified	Convenience	Cross-sectional	Not stated	Mental health and wellbeing	Ireland	High quality
Ougrin	2021	1795 (2073 presentations of which 70.8% were from UK or Ireland)	Under 18	Healthcare records	Case study of health service (pre- and during-covid)	March 2019 to April 2019; March 2020 to April 2020	Self-harm and inpatient admissions	International (England, Scotland, Ireland + 7 other countries)	Moderate risk of bias (Sahoo and Patra, 2023)

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Padela and Jyothish	2022	1226	8 to 18	Healthcare records	Case study of health service (pre- and during-covid)	January 2019 to December 2021	ED attendance for overdose, self-harm and suicidal ideation/attempt	UK (England)	Madigan: 7 out of 10
Park	2020	27 (2019), 12 (2020)	Under 18	Healthcare records	Case study of health service (pre- and during-covid)	March 2019 to April 2019, March 2020 to April 2020	Acute orthopedic trauma referrals and caseload	UK (England)	Not rated
Pascal et al	2021	58	2 to 4	Convenience	Longitudinal (Qual)	Not stated	impact of covid-19	UK (England & Scotland) and New Zealand	9/10 = good quality
Patel	2021	23 in 2020, 35 in 2019	Under 16	Healthcare records	Case study of health service (pre and during-covid)	March 2019 to June 2019; March 2020 to June 2020	Rate of negative appendicectomy	UK (England)	14/24 (Miscia et al., 2023) - higher = better
Pearcey	2024	17	11 to 16	Convenience	Cross-sectional	December 2020 to March 2021	Mental health and wellbeing	UK	N/A
Pearcey	2020	2890 parents	4 to 16	Convenience	Longitudinal	March 2020 to June 2020	Mental health and wellbeing; behavioural difficulties	UK	Viner = Medium quality
Pereira	2023	1475 (508 33% from the UK)	6 to 16	Convenience	Cross-sectional	May 2020 to July 2020	Mental health outcomes for children aged 6 to 16 and their caregivers	International (UK)	Moderate (Chen, Wang et al., 2025)

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Pierce	2020	1543	16 to 24	Representative	Longitudinal	2014 to 2019 (months not stated); April 2020	Mental health and wellbeing	UK	Good quality (Kauhanen et al., 2023)
Playboard NI	2020	280	5 to 18	Convenience	Cross-sectional (retrospective)	June 2020 to August 2020	Play, learning, wellbeing	UK (NI)	N/A
Raw	2021	2988	4 to 16	Convenience	Longitudinal	March 2020 to July 2020	Mental health and wellbeing	UK	Campione-Barr: n/a. DiFazio: n/a
Rhodes	2020	628 new and expectant parents/caregivers who used a specific parenting app were surveyed on their experiences and attitudes during the first half of 2020	Less than 6 months	Convenience	Cross-sectional (retrospective)	April 2020 to June 2020	impact of covid-19	UK	No overall study quality rating given

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Ribner	2021	706 (28.1% of total sample - also Australia, China, Italy, Sweden, US)	3 to 8	Convenience	Cross-sectional (retrospective)	May 2020 to July 2020	Screen use	International (UK, Australia, China, Italy, Sweden, US)	7/8 = high quality
Rose	2021a	6000	6 to 7	Education records	Repeated cross-sectional (pre- and during-covid)	2017; Autumn 2020	Attainment	UK (England)	Serious risk of bias
Rose	2021b	5000	5 to 7	Education records	Repeated cross-sectional (pre- and during-covid)	2019; Spring 2021	Attainment	UK (England)	Serious risk of bias
Rose	2021c	12311	5 to 7	Representative	Longitudinal	Autumn 2020; Summer 2021	Reading, mathematics, social maturity	UK (England)	N/A
Rose	2024	4765	8 to 10	Representative	Longitudinal	Spring 2024	Reading, mathematics, social maturity	UK	N/A
Rose	2023	6157	7 to 9	Representative	Longitudinal	Spring 2023	Reading, mathematics, social maturity	UK (England)	N/A
Rose	41	4781	0-16	Healthcare records	Case study of health service (pre- and during-covid)	March 2019 to April 2019; March 2020 to April 2020	Numbers and acuity of presentation to Paediatric Emergency Department	UK (England)	High risk of bias (Levy et al., 2023)

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Saini	2023	9 parents, 10 children	11 to 13	Convenience	Cross-sectional	October 2020 to December; March 2021 to May 2021	Mental health and wellbeing	UK (England)	Schiera: not done
Salway	2022	1296 pre-pandemic / 393 in 2021	10 to 11	Convenience	Repeated cross-sectional	March 2017 to May 2018; May 2021 to December 2021	Accelerometer-measured moderate-to-vigorous physical activity	UK (England)	Ludwig-Walz Siemens: some concerns
Savage	2020	214	18+ (65% 21 and under)	Convenience	Longitudinal	October 2019; January 2020; March 2020; April 2020	Mental wellbeing, perceived stress, sedentary behaviour, physical activity	UK (England)	Stockwell: 6/10 - higher = better quality. Wunsch = good quality
Schwarz	2022	26	8 - 12 years	Convenience	Cross sectional (experimental task)	May 2021 to September 2021	Speech processing (mask or no mask)	UK (England)	5 = high quality
Schweizer	2023	136 mothers from the UK (43% of the sample)	<2	Convenience	Longitudinal	May 2020 to September 2020; October 2021 to April 2022	Maternal mental health and infant affect	International (UK, Australia, US)	Nazzari: not carried out
Sette	2022	236 (127 from the UK)	6 to 12	Convenience	Cross-sectional	April 2020 to June 2020	Loneliness, anxiety and depression	International (UK)	Low (Chen, Wang et al., 2025). Farrell: 7/9 - higher = better quality

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Shanmugadivel et al.,	2021	13,230	Under 18	Healthcare records	Case study of health service (pre- and during-covid)	March 2019 to May 2019; March 2020 to May 2020	Presenting complaints, triage category, discharge diagnosis and outcome	UK (England)	80% yes in JBI checklist (Bersia et al., 2022); 8/10 (Cheng Huang et al., 2023)
Sheath	2021	172	2 to 16	Healthcare records	Case study of health service (pre- and during-covid)	March 2019 to June 2019; March 2019 to June 2020	Appendicitis	UK (England)	19/32 = moderate risk of bias
Sheldrick	2022	102	9 to 10 pre-pandemic, 12 to 13 during pandemic	Convenience	Longitudinal	November 2017 to July 2018; June 2020 to July 2020	home based sitting, standing, sitting breaks, MVPA and total PA (TPA)	UK	Ludwig-Walz Siemens: some concerns
Sheridan	2020	545	Under 16	Healthcare records	Case study of health service (pre- and during-covid)	March 2009 to April 2009 Every year... till March 2020 to April 2020	Number of acute pediatric trauma admissions and procedures	Ireland	High risk of bias (Levy et al., 2023)
Shukla	2022	1666 in UK	12 to 18 (authors are a bit inconsistent on this)	Convenience	Cross-sectional	Not stated	Psychological well-being	International (UK, India, Israel)	Schiera: not done

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Sidpra	2020	10	0 to 1	Healthcare records	Case study of health service (pre and during covid)	March 2017 to April 2017; March 2018 to April 2018; March 2019 to April 2019; March 2020 to April 2020	Abusive head trauma	UK (England)	Good quality
Skripkauskaite	2021	9161 parents/carers	4 to 16 in March 2020	Convenience	Longitudinal	March 2020 to June 2021	Mental health	UK	N/A
Skumlien	2021	372	16 - 17	Convenience	Cross sectional (retrospective)	June 2020 to August 2020	Cannabis use	UK, EU, EEA, or Switzerland	Layman: n/a
Smyth	2022	2947	12	Representative	Longitudinal	December 2020	Wellbeing	UK	N/A
Soneson	2023	16,940	8 to 18	Convenience	Cross-sectional	June 2020 to July 2020	(Changes in) mental well-being	UK (England)	Farrell: 4/9 - higher = better quality. Niu: 5/8 - higher = better quality.
Steeg	2021	4592	10 to 17	Healthcare records	Case study of health service (pre- and during-covid)	January 2019 to May 2021	Self-harm	UK (England)	Madigan: 7 out of 10
Stewart	2023	518	14 to 18	Convenience	Cross-sectional	August 2020 to September 2020	Mental health and wellbeing	UK (Scotland)	Low (Chen, Wang et al., 2025)

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Stewart	2021	53	Under 18	Convenience	Cross-sectional	May 2020 to July 2020	Experience of online treatment for eating disorders	UK (England)	Devoe: 10/15 - higher = better quality
Sugand	2020	302 (2019), 97 (2020)	Under 18	Healthcare records	Case study of health service (pre- and during-covid)	March 2019 to April 2019, March 2020 to April 2020	Acute paediatric orthopaedic trauma referrals and operative caseload	UK (England)	Not rated
Taxiarchi	2023	Not stated	16 to 24	Representative; Medical records	Time trend analysis	January 2015 to December 2021	Mental health presentations, prescriptions	UK	N/A
Thomas	2021	65 at t1 / 50 at t2	16 to 21	Convenience	Longitudinal	February 2020; April 2020	Mental wellbeing, self-esteem. Physical activity	UK	Li = medium quality
Toseeb	2023	527	5 to 18	Convenience	Longitudinal	March 2020 to October 2020	Depression and anxiety	UK	Moderate risk of bias
Town	2022	20	13 to 24	Convenience	Cross-sectional	Not stated	Mental health and wellbeing	UK	Not rated
Tracey	2022	3,253	4 to 5	Representative	Longitudinal	Autumn 2020; March 2021 to April 2021; Summer 2021	Socio-emotional wellbeing and attainment	UK	N/A

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Tromans	2020	3274 CAMHS referrals	Not specified	Healthcare records	Case study of health service (before and during-covid)	January 2020 to May 2020	Secondary mental health service admissions and referrals	UK (England)	3 (out of five, lower score = higher quality) (Samji et al., 2022). WMY = 8/14 yes, 1 no 5 n/a.
Vizard	2020	3,570	5 to 22	Representative	Longitudinal	July 2020	Mental health, experiences of family life, education and services, worries and anxieties	UK (England)	N/A
Waite	2020	2673	4 to 16	Convenience	Longitudinal	March 2020 and May 2020	Changes in emotional symptoms, conduct problems and hyperactivity/inattention	UK	Panchal: 6/10 - higher = better quality
Walters	2022	407	11 to 18	Convenience	Cross-sectional (retrospective questions)	November 2020	Experiences of online learning	UK (Wales)	Not carried out
Watson	2024	4785	0 to 11	Convenience	Repeated cross-sectional	June 2023	Child and family health and wellbeing	UK (Scotland)	N/A
Watson	2020	11228 parents	2 to 7	Convenience	Cross-sectional	June 2020 to July 2020	Mental health and wellbeing; Long-term conditions	UK (Scotland)	Viner = Low quality

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Webster	2024	9469	16 to 24	Representative	Time trend analysis	2019 (month not stated); April 2020 to September 2021	Mental health and wellbeing	UK	N/A
Weidmann	2021	13500	School years 2 to 6	Convenience	Repeated cross-sectional (pre- and during-covid)	November 2019 to December 2019; September 2020; November 2020 to December 2020	Attainment	UK (England)	Serious risk of bias
Wheatear	2022	6029	6 to 8	Representative	Longitudinal	Spring 2022	Reading, mathematics, social maturity		N/A
Widnall	2022a	603	13 to 14	Convenience	Longitudinal 3 wave panel survey	October 2019; May 2020; October 2020	Anxiety, depression, wellbeing	UK (England)	Fair (Wiedemann et al, 2025); Serious risk of bias (Ludwig-Walz et al, 2023; Ludwig-Walz et al., 2022)
Widnall	2022b	25	14 - 15	Convenience	Cross-sectional	December 2020 to March 2021	Education experiences; Peer connections	UK (England)	Magis-Weinber 2025: not done

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Widnall	2020	721 min attended both pre- and during-covid wave (1047 completed lockdown survey)	13 - 14 years	Convenience	Longitudinal	October 2019; April 2020 to May 2020	Anxiety and depression; Mental health and wellbeing	UK (England)	Viner = Low quality
Williams	2021	All children living in Scotland	0 to 14	Healthcare records	Case study of health service (pre- and during-covid)	March 2016 to August 2016; March 2017 to August 2017; March 2018 to August 2018; March 2019 to August 2019; March 2020 to August 2020	Unscheduled primary care and ED attendances, emergency hospital admissions, emergency paediatric intensive care (PICU) admissions requiring invasive mechanical ventilation and paediatric mortality	UK (Scotland)	High risk of bias (Levy et al., 2023); high quality (Palo et al., 2022)
Wilson	2020	116	School age	Convenience	Cross-sectional	June 2020	Access to education	UK (NI)	N/A
Wray	2023	81 parents/carers, 217 staff	Under 18	Convenience	Cross-sectional	December 2020 to March 2021; May 2021 to June 2021	Impact of visiting restrictions in paediatric intensive care	UK (England)	5/10 positive, 4/10 can't tell, 1/10 no (Krewulak et al., 2024)

First author	Year	Number of participants	Age of CYP	Sample type	Study type	Data collection dates	Outcomes of interest	UK or Ireland	Study quality as determined by the systematic review that included it
Wright	2021	226	11-12	Locally representative	Longitudinal	December 2019 to March 2020; June 2020 to August 2020	Mental health and wellbeing; behavioural problems	UK (England)	High risk of bias (Newlove Delgado et al., 2023) Serious risk of bias (Ludwig-Walz et al., 2023; Ludwig-Walz et al., 2022); 7/10 Miao et al., 2023; Alamolhoda: 9 = very good. Miao: 7.
Wright	2021	165	13-19	Convenience	Cross-sectional	May 2020	stress, anxiety, depression, fatigue, vitality, and perceived health	UK	Moderate (Chen, Wang et al., 2025); Li = medium quality
Young Minds	2021	2438	13 to 25	Convenience	Repeated cross-sectional	January 2020 to February 2021	Mental health	UK (NI)	N/A

Appendix 4: Timeline of Covid-19 restrictions

27 February 2020: First case of COVID-19 reported in Northern Ireland

13 March 2020: Lockdown announced in Republic of Ireland

23 March 2020: UK Government initiates a national lockdown. Devolved nations to decide their own specific measures and legislation.

28 March 2020: Northern Ireland Executive passes legislation for its own lockdown:

- All schools are closed apart from those providing places for essential workers' children – these do not include Special schools
- All those who can, are told to work from home
- Non-essential retail is closed and furlough introduced
- People told to stay at home aside from getting groceries, meeting medical needs or exercising once per day
- Those with underlying health conditions are told to 'shield' (i.e. not to go out at all)

14 May to mid-August 2020: Easing of restrictions

- More businesses and shops able to open
- Households able to meet outside
- Households with one adult may be linked with one other household of any size (support bubble) from June 13
- Outdoor playgrounds reopen on July 10
- Schools remain closed though (including summer holidays)
- Decisions about exam grades

Mid-August to 25 December 2020: Return to school & tightening restrictions

- Schools open, social distancing guidance
- Restrictions tighten again, varying over period
- Household mixing reduced again, bubbling one household
- Extended Halloween half term holiday

26 December 2020 to 7 March 2021: Second full lockdown

- Schools closed again (except to vulnerable and key worker children, and Special Schools)
- Only 'essential' shops open
- People asked to work from home
- No meeting up between households except where bubbling
- Decisions re AQE and cancellation of external exams

8 March to 12 April 2021: Second return to school

- Nursery, Preschool and P1-3 children returned on 8 March
- P4-7 and Years 12-14 returned 22 March
- All years returned to school on 12 April

30 April to end July 2021: Second easing of restrictions

- Schools remain open
- Use of Lateral Flow tests in schools
- Opening indoor hospitality, museums, libraries
- Relaxing restrictions on numbers meeting indoors and outside
- Delta variant first identified in NI, rising numbers of infections

This timeline is based on NICCY (2021a) and Geraghty & Lyons (2021). For a more detailed account, see Geraghty & Lyons (2021).



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