Public Health Scotland

Ensuring our future: addressing the impact of COVID-19 on children, young people and their families

Discussion paper

Scottish Directors of Public Health

ScotPHN

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0545 2/2022

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1. Mandate for action

This section sets out the priorities arising from the joint Scottish Directors of Public Health (SDsPH)/Public Health Scotland (PHS) workshop (16 February 2022) on public health priority 2 for Scotland, ‘A Scotland where we flourish in our early years’.

We are working within a public health landscape which continues to respond to the pandemic, recovery needs and remobilisation. We are committed to working with our partners to ensure that inequalities reduce and that there are improvements across a range of public health measures. This report came from a desire to take action on those areas where we can take action now to mitigate some of the adverse impacts on children and young people across Scotland. We recognise that this is of relevance and interest to many of our partners and we will use this report as a basis for engagement.

Our collective action needs to undo the harms that children and young people have experienced as a consequence of the pandemic and address the factors leading to these harms. It needs to lessen the health consequences and act to prevent future harm. To achieve this:

- We will prioritise action to address the health and developmental impacts of the pandemic on children and young people during their early years and adolescence. These periods provide critical windows of opportunity to support early childhood development, mental wellbeing, education, and future life opportunities and outcomes.

- We will prioritise work to minimise COVID-19 and other risks during pregnancy, and to promote the health of pregnant women through ensuring accessible services and support.

- We will develop a greater understanding of the health needs of children with disability and severe illness and their families and will support the restoration of services as a priority and undertake further activities to prevent further harm.

- We will prioritise cross-sectoral action to promote the mental health and wellbeing of children and young people. This includes identifying and addressing issues likely to result in significant mental health problems. Integral to this is whole-system awareness of trauma and strengthening trauma-informed practice.

- We think it is essential to capture what has worked well during the pandemic and build on this as we move forward. Given the financial challenges that many families are experiencing, we will prioritise understanding what is happening in Scotland at local and national levels to assess and address child poverty. We want to learn what has been effective and build on this urgently.

- Education has a vital role to play in supporting children and young people, from early learning and childcare through to youth work and community learning and development. We will prioritise action to support recovery of these sectors in a way that promotes the health and wellbeing of children and young people and addresses increasing attainment inequality.

- The pandemic has emphasised the critical role of informal support and activities within our communities in the health and wellbeing of our children, young people and their families. We will prioritise action to support the restoration and prioritisation of these at a local level.

- We know that ongoing monitoring of child health outcomes and providing robust data and evidence in a timely way is essential to help identify critical issues emerging locally and nationally and to guide practical actions. This will continue to be a priority for us.

To progress these actions, we will establish an outcomes plan with clear milestones and description of the desired short, medium- and long-term impacts, to ensure meaningful action is achieved. We will do this through joint working between Public Health Scotland, local public health teams and local children's partnerships. We will engage with partners to support the development of the outcomes plan.

2. Executive summary

The CYPPHG, a special interest group of the Scottish Directors of Public Health, has produced a discussion paper on the impact of COVID-19 on children and young people. Further to comprehensive stakeholder engagement, it highlights some positive, but mainly adverse impacts, and suggests key areas the system (local and national) should address to mitigate these.

2.1. Summary of findings

The key issues identified reach across the broad range of factors influencing children and young people's health and wellbeing. These include issues with:

- access to child health services
- child development concerns
- potential increases in the severity and complexity of mental health issues
- attainment and loss of learning
- the health and wellbeing of children and young people
- poverty
- the future health of the people of Scotland, including alcohol, tobacco, diet, substance use, gambling and gaming, and sexual health.

While the consequences of the pandemic have implications for all children, it is unlikely that these are the same for all children and young people. Instead, impacts are likely to be greater for those already experiencing poverty and more significant disadvantages, with particularly stark implications for single-parent families, those living with children with a disability or serious illness, families affected by substance use and those with a parent in jail.

2.2. CYPPHG recommendations for action

2.2.1. Child health and health care

- Given the importance of early childhood health and development to future health and wellbeing, maintaining the capacity to deliver child health reviews and input data into the Child Health Surveillance Programme Pre-School (CHSP-PS) system is vital. Health Boards could prioritise those who have had no review, a virtual review or missed their 6–8-week review as being of immediate concern.

- Families with young children are likely to have had fewer opportunities to interact with families with children of a similar age and might not be aware of relevant developmental milestones. They should be encouraged to seek support from their health visitors if they have concerns about their child's development.

- Building on existing local and national work, further work by NHS Boards, Integrated Joint Boards, Scottish Government and Public Health Scotland may be valuable in understanding the increase in reported child development concerns, which groups of children are most affected and what interventions need to be strengthened and targeted to undo, mitigate and prevent these.

- Increased capacity for this work and resourcing of appropriate supportive measures and family support may be required.

- Local Children's Service Partnerships should continue to work to support children and families with the challenges affected by the pandemic. They could include raising awareness with services and staff working with families with young children to ensure that they are aware of the issues facing young children and their families. They have a crucial role in helping them understand the potential impact of the pandemic on their child and their family. It will be important for staff to help them access early and appropriate assessment and support.

- Pregnant women should be encouraged to access services and engage fully with antenatal care, including having their recommended vaccinations. These women may need support to facilitate their attendance (e.g., travel and childcare). This can also be a valuable opportunity for antenatal and child health services to target pregnant women at risk of child poverty through income maximisation interventions.

- Parents of children born during the pandemic may have less knowledge about common childhood illnesses and injuries, and lack confidence in how and when to seek care. NHS Health Boards and Integrated Joint Boards could consider how professionals who understand child health and paediatric disease could provide initial support to parents on managing common childhood illnesses and injuries.

- Understanding whether the changes that have been seen in hospital and urgent care are driven by reduced healthcare needs or issues with access to or availability of community-based paediatric health services is a key area for potential action. Public Health Scotland may wish to explore the underlying causes of emergency department attendances and reasons for planned and unplanned paediatric admissions in 2020, 2021 and 2022 compared to pre-pandemic rates and reasons for this.

- Fluctuations in birth rates associated with the pandemic will have implications for the future planning of children's services. Therefore, understanding the full impact of these fluctuations on child cohort sizes would be helpful in the coming years. This monitoring may be an area for action that Public Health Scotland could explore.

- The pandemic has significantly impacted on children and young people's mental health. In keeping with existing local and national efforts, the mental health and wellbeing of children and young people should continue to be a key priority demonstrated through ongoing investment and support for local partnerships. Actions could include the provision of information, and implementation of approaches to support and improve mental health in all services that children come into contact with and accessible services.

- Recognising the potential for increased levels of sexual exploitation and sexual abuse experienced by children and young people during the pandemic and of the resulting impact of this in the short term and longer term. There will be increased demand placed on our health, education, social care, third sector and criminal justice services. Trauma-informed practice and support will be essential to manage cross-sector working to ensure a whole-systems approach is taken to prevention and mitigate the impacts of abuse.

- Building an understanding of the long-term health, wellbeing and educational impacts of the pandemic on this cohort of children and young people is important. This will help identify any increased service need to enable workforce and service planning. It would be helpful to consider how routinely available data and published evidence may be able to aid this understanding. Public Health Scotland may wish to explore this.

2.2.2. Learning and education

- Given the early emergence of developmental concerns, local areas could consider providing additional support to improve learning environments before the age of 2 to reduce the gap on entry to early learning and childcare, for example, providing mechanisms for families to access toys and books. This extra support is essential in communities experiencing high socioeconomic deprivation or who have limited access to resources and activities in remote or rural communities.

- Access to high-quality early learning and childcare can help improve developmental outcomes for children experiencing socioeconomic or other forms of disadvantage. Parents of eligible 2- and 3-year-olds may need encouragement to take up places. This might be achieved through various means, including via health visitors and Local Authorities reaching out to these parents.

- A needs assessment for children living with a disability or severe illness and their families would be beneficial. Understanding their experience of the

pandemic and their challenges would usefully inform plans for future support and resilience of service delivery.

- It will be essential to provide active support for the restoration of community-based learning and activities for children and young people and the use of community spaces to achieve this. This could be the provision of play-based programmes and opportunities for parents to ‘stay and play’ or participate in activities for younger children. It could include recovery of breakfast and supper clubs, out-of-school care and schemes that support income maximisation for families. For older children and young people, community-based youth work programmes and groups have an important role to play.

- Local children's service partnerships should make particular efforts to ensure that lived experience of children with disabilities and their families is integral to planning in all services as part of the realisation of their rights, and consider further work to ensure any backlog of health and care needs can be addressed. Improving the collection of data for these children and their families would also be valuable.

- Maintaining education is vital for children and young people. Consideration could be given to the potential for blended or online learning models for children who have additional health needs or disabilities who may benefit from this at times, taking into account their individual needs and right to inclusion.

- Given the financial pressures that our young people are going to face in the coming years with reduced employment opportunities and increased inflation, there is value in revisiting Naomi Eisenstaedt’s 'Life chances of young people' and thinking boldly about how to increase life opportunities and financial support for our young people.

2.2.3. Family support

- Universal services have a role in supporting parents to access community learning and development, income maximisation and advocacy services or mental health support. Addressing increased child poverty will need to tackle

the rising costs of living, low-paid and insecure work, and housing costs. It will also need to improve the affordability and accessibility of transport, food, housing and childcare, and improve the uptake and value of social security and other benefits.

- It will be important for Local Authorities and Health Boards to prioritise and build on existing work to address child poverty in Scotland, for example, by strengthening local child poverty action reports in light of the impacts of the pandemic, providing clear referral pathways and increasing public awareness of support that is available.

- Given the importance of access to greenspace for overall health and wellbeing, identifying those children and families most at risk of lacking access to green space could be prioritised. Building on the work that has been done to reallocate roads for active transport routes and street play, consideration could also be given to how planning policy and systems can ensure that those within urban environments have access to greenspace through gardens, or good-quality, local communal greenspaces. Local Authorities may wish to consider children's rights and wellbeing impact assessment of their planning systems to support safe access for all children and families.

2.2.4. Workforce

- Universal services, including primary care, maternal and child health, dental care, early learning and childcare, and schools, have a pivotal role in ensuring the safety and wellbeing of children and supporting families. These services help prevent problems from escalating and enable children, young people and families to access targeted or specialist support when needed. Ensuring the resilience of these services and their workforce is essential to mitigating the current impacts of the pandemic and preventing further effects. Actions such as protecting staff from redeployment and supporting staff wellbeing would be beneficial.

We have yet to understand the full impact of the COVID-19 pandemic on children and young people, but this should not prevent us from taking the necessary actions

to mitigate against emerging harms and to build on the positives that some children and young people have experienced in the past two years. For many issues, swift action to undo or mitigate observed harms will prevent a worse situation in the future or a compounding of impacts. It will also be vital for us to learn from our experiences to enable preventative action to minimise the potential for harm to children and young people in the event of any future public health crisis. As further data and research emerges, the CYPPHG will endeavour to update this document as far as capacity allows.

3. Background: public health implications of the pandemic for children and families

Fortunately, relative to other age groups, and other causes of childhood illness, the direct health impacts of COVID-19 on children have been limited. However, the pandemic and the necessity for health protection control measures has substantially impacted the lives of our children and young people and their families. The past two years have seen significant disruption to how we interact with each other and the functioning of our economic, education, and health systems and services. These impacts are being felt most by those already at a disadvantage and who were experiencing inequality (structural and relational) before the pandemic. Some of these impacts are likely to endure.

> 'While children are not the face of this pandemic, its broader impact on children risk being catastrophic and amongst the most lasting consequences for societies as a whole.'[1]

We know that the quality of health care and education children receive, the income and resources their families have access to, and the climate and environment in which they grow up will have a lifelong impact. For children, critical and sensitive periods of growth and development alongside key social and educational transitions mean that disruption caused by the pandemic will be experienced differently to adults. The window of opportunity for intervention to address impacts can be short and time sensitive.

The pandemic has required high levels of resilience among all families, with increasing stressors and reducing resources available to mitigate these. However, there are some groups among whom the impacts are likely to have been particularly acute. These include, for example, children and families living in poverty before the pandemic or now living in poverty; children with additional needs and those with complex health conditions and disabilities; and children living in families with parents or carers experiencing emotional distress. Thus, mitigating the disruption caused by the pandemic requires more than a resumption of services but active recovery of

missed opportunities and support to manage experiences of adversity and trauma from the direct and indirect effects of COVID-19.

Scotland has committed to incorporating as much as possible of the United Nations Convention of the Rights of the Child (**UNCRC**), including Article 24, the right of the child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health. We have a collective responsibility to all our children and young people to ensure that as we address the impacts of the COVID-19 pandemic, our actions protect and support their rights to health and healthy development.

4. What impact has the pandemic had on children's health and health care?

This section draws on data available from Public Health Scotland's **wider impacts dashboard.** These data are updated monthly; this report includes information based on updates, where available, to February 2022.

4.1. Universal pre-school child health care

Child health reviews are routinely offered to all pre-school children by health visitors, and involve assessing children's health, development and wellbeing. Health visitors also provide advice and parenting support. Developmental reviews are undertaken during visits held at 6–8 weeks, 13–15 months, 27–30 months and 4–5 years (the 4–5-year review was mandated for children turning 4 from April 2020). Universal provision of reviews to all children helps to ensure children's development is progressing as expected for their age and stage and allows any concerns to be addressed.

The impact of COVID-19 on the delivery and uptake of child health reviews has varied throughout the pandemic, with a marked dip in the timely delivery of reviews for children who became eligible in March and April 2020. In general, the reviews offered to older pre-school children have been more affected than those for young

babies. Many children who were not seen in the early pandemic appear to have been 'caught up' with a later than usual review. The proportion of children recorded as receiving their health visitor's first visit, 6–8-week and 13–15-month reviews is higher for those eligible in 2020 than in 2019. A similar overall proportion of children had a review documented for the 27–30-month contact (89.4 % in 2019, 88.8% in 2020), but among the children who became eligible in February to April 2020, a smaller than expected proportion had had this review by 31 months of age. Together, the dashboard data for 2020/21 suggest that the pandemic influenced the timeframe within which eligible children received their reviews and also the speed of data entry into children's Child Health Surveillance Programme Pre-School (CHSP-PS) records once a review was completed.

The proportion of children recorded as having one or more developmental concerns (at 13–15 months and 27–30 months) has increased in 2021, having been more stable in 2020. The fall in the proportion of children with a recorded concern seen in April 2020, appears to be due to a reduction in the completeness of information recorded at that time, rather than a true change in findings. The most recent data available indicate that in September 2021, 11.8% of children reviewed at 13–15 months of age had a concern documented and 18.7% of children assessed at the 27–30-month review. This is compared with average monthly figures in the pre-pandemic period of 9.6% and 14.6%, respectively. Both measures have been consistently above the pre-pandemic level since February 2021. This suggests that these findings are unlikely to be a result of chance variation.

4.1.1. Immunisation appointments

All preschool children are offered five immunisation appointments as they reach the following ages: 8, 12 and 16 weeks; 12–13 months; and 3 years and 4 months of age. Data on the Public Health Scotland wider impacts dashboard show that the delivery and uptake of pre-school immunisations have been well maintained during the COVID-19 pandemic. Final uptake was similar for children who became eligible in 2020 to levels seen in 2019, with evidence that timely uptake was higher in 2020 than 2019 across all pre-school immunisations. The dashboard commentary indicates several reasons for the observed uptake pattern, including increased

awareness among parents of the importance of immunisation reinforced by national communications to encourage attendance, and local communications and new processes introduced in response to the pandemic. For example, immunisation teams in some NHS Boards phoned parents/carers shortly before the day of the appointment to ensure families were free of symptoms of COVID-19 before attending, reassure them and answer questions.

Within secondary school, young people are offered booster vaccinations and the human papillomavirus (HPV) vaccine. Delivery of these programmes within schools has been impacted by periods of school closure in the 2019/20 and 2020/21 academic years. Uptake among those offered the vaccine does not appear to have been affected. For example, among S1 girls offered the vaccine, 85.8% were vaccinated in the 2019/20 academic year, compared with 85.1% the previous year. However, the disruption from school closures meant that not all pupils were offered a vaccine within the school year. Therefore, the overall coverage achieved in this group was 61.0% of eligible pupils vaccinated within the school year. It will be important to ensure that there is an adequate resource to provide catch-up for these cohorts.

4.2. Hospital and urgent health care

The use of urgent health care for children has varied markedly since the beginning of the COVID-19 pandemic in Scotland. At the end of March 2020, there was a rapid and marked fall in calls to NHS24, contacts with out-of-hours primary care, incidents attended by the Scottish Ambulance Service and emergency department (ED) attendances for children aged 0–14 years. There was a spike in activity associated with school return in August 2020, after which measures returned to markedly lower levels than in 2018/19. These were proportionally greater than the falls in urgent healthcare activity seen in other age groups.

ED attendances remained exceptionally low, particularly for children aged under 5 years, up until May 2021. However, from May 2021, there was a sustained rise in attendances for the under 5s, with levels higher than the pre-pandemic baseline, peaking in the week ending 21 September 2021, with attendances 43% above the 2018/19 average. ED attendances subsequently began to decline and in January

2022 remain around 14% below the 2018/19 average. In contrast, while ED attendances for children 5–14 years have increased since April 2021, there have been frequent fluctuations above and below the pre-pandemic average.

The number of planned hospital admissions for children and young people also dropped steeply in April 2020. They have fluctuated during 2021 for both the under 5s and 5–14-year-olds, and in January 2022, they remain below the pre-pandemic period for the under 5s. For example, in the week ending 23 January 2022, planned admissions for the under 5s were around 12.5% lower. For 5–14-year-olds, planned admissions are now 9.1% above the 2018/19 average, having increased from late October 2021 when they were 51.9% lower.

There may be many factors influencing these changes in healthcare activity, and it is not yet clear what contribution each makes. There may be a genuine reduced need for health care due to lower levels of illness or injury. For example, there is evidence that the control measures to reduce transmission of COVID-19 also reduced other respiratory infections,[2] and changes in children's activities may have reduced the occurrence of injury.

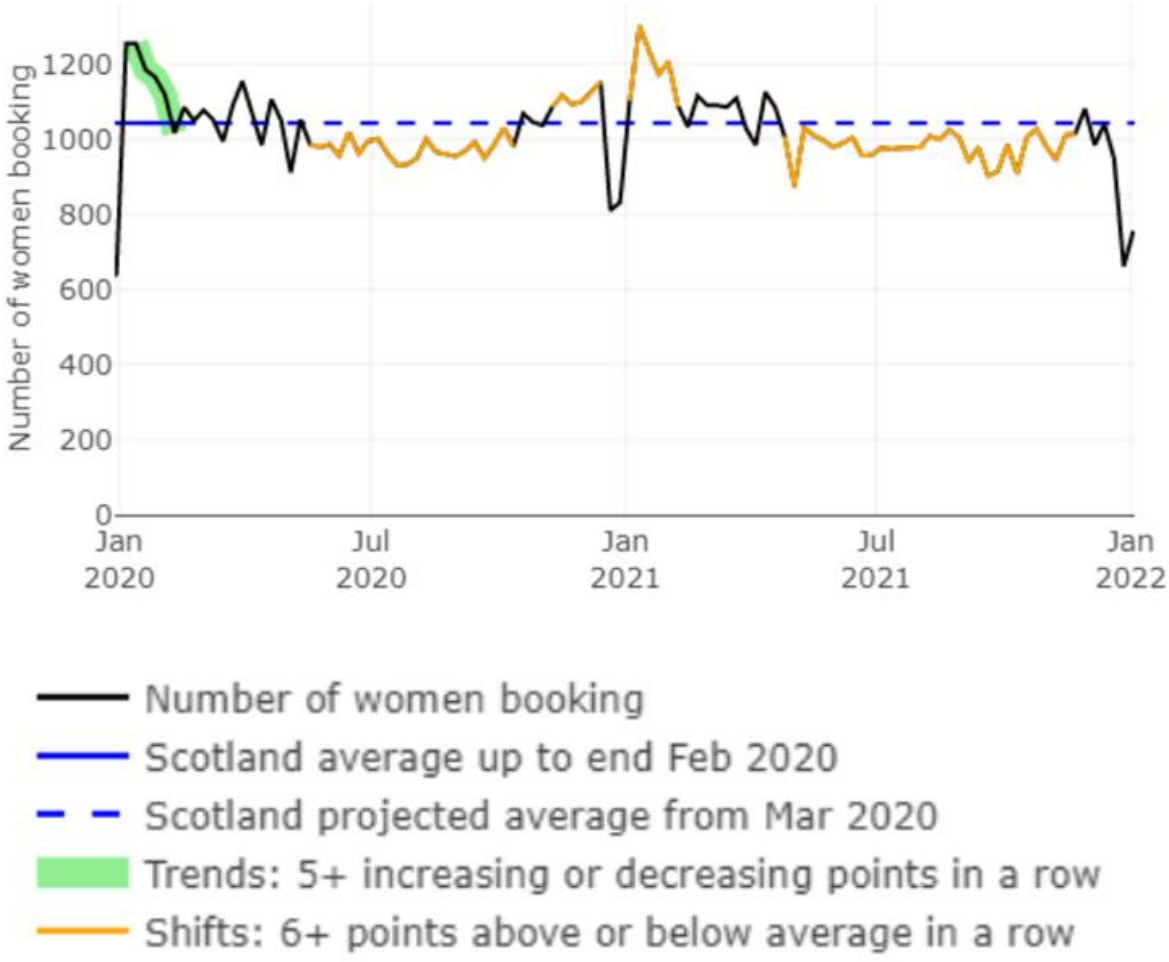
Relaxation of measures to control the spread of COVID-19 may also see a resurgence of respiratory infections like respiratory syncytial virus (RSV) and influenza. Therefore, continued surveillance of respiratory viruses alongside timely monitoring of paediatric healthcare usage and capacity will be needed. Likely, some children born during the pandemic and their parents have not managed common childhood illnesses and injuries, and have less knowledge and confidence in how and when to seek care. In addition, the pandemic is likely to have influenced the perceived and actual accessibility of services, including primary care, and the willingness of families to attend in-person health care for children.

It is not yet known what the overall impact of these healthcare changes for children will be on child health. But the challenges to child health services and recovery of these provide a chance to reflect on how our paediatric health services are designed, our child health workforce is supported and strengthened, and our parents are empowered to take action to promote their children's health and wellbeing.

4.3. Pregnancy and antenatal care

The number of women booking for antenatal care each week was lower than the pre-pandemic average between May and October 2020 (see Figure 1 below), and between April and November 2021. There were more bookings than the previous average in November 2020 to early February 2021. However, substantial variation occurs in the period around the turn of each year due to when women can book around the Christmas and New Year period. The average gestation at which women book for pregnancy has not changed substantially from the pre-pandemic period.

Figure 1: Number of women booking for antenatal care Scotland, per week



4.4. Number of births

Changes in the number of births have taken place on a background of a steady decline in births since the most recent peak in around 2008. This pattern continued across 2019, 2020 and 2021, each with around 1,800 fewer births than the preceding year (note 2021 data are provisional and likely to increase slightly). There is some evidence of effects of the pandemic in 2020 and 2021, with lower than usual rates of birth in the period August 2020 to February 2021.[3] Preceding declines and recent in-year fluctuations in birth rates will have implications for future planning of children's services, therefore understanding the full impact of these changes on child cohort sizes will be an important activity in the coming years.

4.5. Stillbirth and infant deaths

Ongoing monitoring of stillbirth and infant mortality levels during the COVID-19 pandemic has been a key activity for Public Health Scotland. These are tragic but rare events that can be influenced by maternal health and wellbeing, how maternity services are provided, and how people seek and interact with care. **Annual mortality statistics for 2020** published by National Records of Scotland show that there were 198 stillbirths and 146 infant deaths in 2020. Rates of stillbirth and perinatal deaths (4.2 and 5.7 per 1,000 live and stillbirths respectively) were slightly higher than the previous two years. Infant mortality (3.1 per 1,000 live births) was the lowest rate recorded to date in Scotland.

Public Health Scotland's monthly perinatal and infant mortality measures remained within expected limits from March 2020 to August 2021. In September 2021, the monthly neonatal mortality rate which refers to deaths in the first month of life (5.1 per 1,000 live births) and extended perinatal mortality rate (10.1 per 1,000 live and stillbirths) exceeded their upper control limits of 4.3 and 9.4, respectively, for the first time in the monitoring implemented for the pandemic period. All reported measures of perinatal and infant mortality returned to within expected monthly limits for October, November and December 2021. Ongoing monitoring will establish whether this is a single unusual month or if there is any identifiable trend, and full annual mortality data will be important in identifying any changes over a longer period.

4.6. Child oral health and dental services

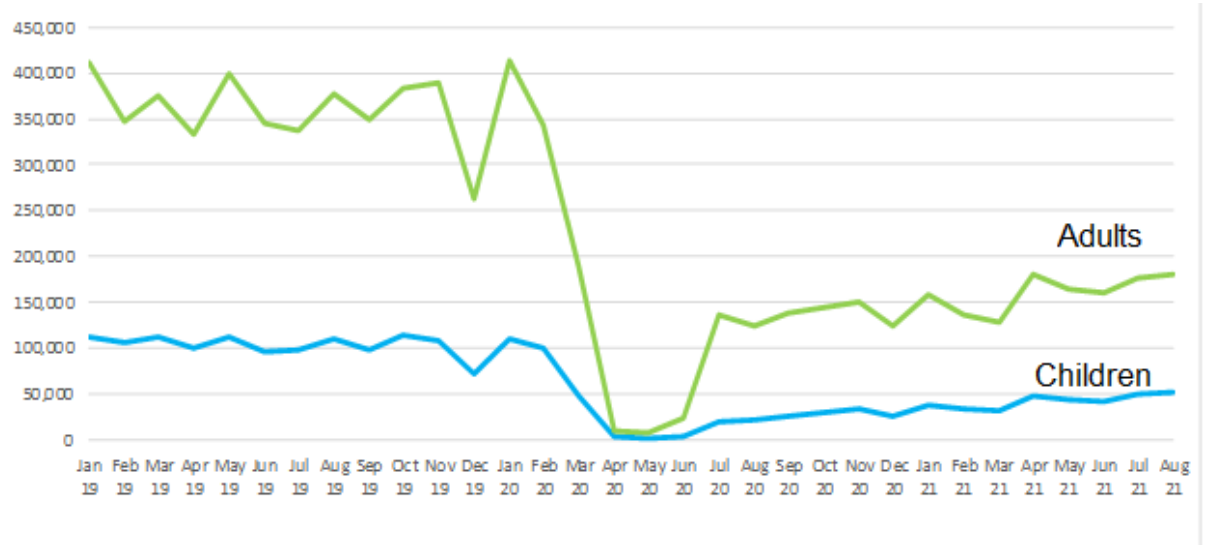
The full impact of the COVID-19 pandemic on children's oral and dental health in Scotland is not yet fully known or understood.

The **National Dental Inspection Programme (NDIP)** in Scotland provides annual population epidemiological data on primary school-age children (P1 5-year-olds and P7 11-year-olds), as well as identifying urgent dental needs among individual children and directing them into appropriate dental care. NDIP data had shown a continuous population improvement in child oral health in recent years. However, due to the pandemic, this crucial programme was paused in the school year 2020/21, and it is uncertain whether it will be fully restarted in the school year 2021/22.

The improvements in Scotland's child oral health population observed for over a decade have been driven by the world-leading **Childsmile** – national child oral health improvement programme for Scotland. However, this multifaceted public health improvement programme delivered in nurseries, schools, communities and primary care dental practices, has also been paused through the pandemic. Revised guidance and protocols have been produced to support the recovery of this programme, which is only slowly beginning to recommence.

NHS dental services in Scotland have been substantially impacted by COVID-19, with a huge backlog of patients in need of dental care combined with reduced capacity in the system. Figure 2 shows the dramatic reduction in dental service provision for both children and adults from the first national lockdown in March 2020, and, for three months, dental provision was only available via urgent dental care centres, which were established in all Health Boards. In June 2020, primary care dental practices began to open, but due to ongoing pandemic-related restrictions, by August 2021 had only reached 48% of the pre-pandemic levels of child and adult patient visits. Prior to COVID-19, dental extractions under general anaesthesia was the most common reason for children to have an elective hospital admission in Scotland. Since the first lockdown waiting times for this procedure have got longer.

Figure 2: Numbers of dental claims as a measure of patient dental visits by month and year for children and adults



Data source: Public Health Scotland dental COVID-19 recovery analytical team.

5. What impact has the pandemic had on learning and education?

The pandemic and the necessary public health measures to control the spread of the virus has resulted in significant disruption to learning and education in Scotland from early learning and childcare to higher and further education and the youth work sector. The scale of the impact on education at a national and international level is unprecedented. At the peak of the pandemic in March 2020, over 1.4 billion pupils were out of school, with half of the world's school children still experiencing significant disruption to their education due to complete or partial school closures.[4] Given the scale and ongoing need for infection control measures within education settings and broader society, understanding the full impacts of the pandemic on development, wellbeing, learning and attainment will take some time.

However, evidence about the impact of children and young people's social circumstances on educational outcomes is well documented. For example, lower levels of attainment are linked to children and young people's physical environment,

including overcrowded or poorly heated homes, living in a disadvantaged neighbourhood and food insecurity. The social and activity-rich environment of schools can help to mitigate against these.[5]

We do not know the exact impact on children and young people's learning, health and wellbeing, and achievement, and how this will affect them in the longer term. Although, what we know about factors important to educational attainment, suggest that the pandemic is likely to have made our existing inequalities worse, potentially exacerbating the poverty-related attainment gap.

A critical publication to understanding the impact on children and young people is the Scottish Government equity audit.[6] This looked at the impact of the COVID-19 pandemic and associated school building closures on educational experiences and attainment for all children and young people, and especially those affected by poverty and socioeconomic disadvantage including rural deprivation and associated lack of access of services and resources. It includes a synthesis of key local, national and international literature, supplemented with local evidence gathered from 54 schools across Scotland.

The audit identified that pupils' mental and physical health and wellbeing had been impacted negatively by school building closures, and suggests that pupil progress and attainment are likely to be negatively affected. Based on the findings from focus groups with participants from the 54 participating schools across Scotland, the audit suggests that socioeconomically deprived children and young people are among those who may have experienced the greatest impacts, along with children in the early years of primary and those starting secondary school. Digital infrastructure and connectivity were essential for children and young people, while gaps in access to equipment and connectivity having a negative impact, with socioeconomically disadvantaged children and young people the most affected. Participants described using Pupil Equity and Connecting Scotland funding to buy equipment to facilitate participation in online learning.

The audit also highlights the extensive range of measures put into place at local and national levels to try to minimise potential impacts. For example, the creation of childcare hubs; additional funding for teachers, counsellors and youth work; flexibility

in the of use of Attainment Scotland Funding; funding for provision of digital and other equipment; and free school meals during periods when school buildings were closed and during holidays.

In terms of impacts on attainment, a recent Scottish Government report provides data for 2020/21 on the proportion of Primary 1, 4 and 7 school pupils who were achieving expected Curriculum for Excellence levels in literacy and numeracy.[7] There were no data collections for secondary school (Secondary 3) or special school pupils in 2020/21, and no data were collected for any pupils in 2019/20.

Assessments of a Curriculum for Excellence-level achievement are based on teachers' professional judgment using evidence from the ongoing evaluation of children through the academic year. Following the census date of 14 June 2021, Local Authorities and grant-aided schools provided assessment data to the Scottish Government.

In 2020/21, around two-thirds (67%) of primary pupils achieved the expected literacy level, and three-quarters (75%) attained the expected level of numeracy. However, the percentage of pupils reaching the expected level of attainment was lower in 2020/21 for both literacy (5.4% lower) and numeracy (4.4% lower).

The proportion of pupils reaching the expected level has reduced for children across both the most and least deprived areas in literacy and numeracy. However, the attainment gap has widened between 2018/19 and 2021/22 as the proportion of pupils reaching the expected level of attainment decreased more for pupils from the most deprived areas, with the gap increasing 4% in literacy to 24.7 percentage points and 4.6% in numeracy to 21.4 percentage points.

These findings correlated with recent data from England that suggests that overall, most children were found to have made less progress in the academic year 2020/21 than might have been expected.[8] By the end of the summer term, it was estimated that primary-aged children had lost 0.9 months of progress in reading and 2.2 months in mathematics. Pupils from disadvantaged backgrounds experienced greater learning losses than their more affluent peers. By the end of the summer term, the gap in learning loss in reading was about 0.4 months for primary-aged children and

1.6 months for secondary school pupils. Non-disadvantaged pupils who live in areas with moderate to high levels of deprivation were found to have experienced a similar or greater degree of learning loss than disadvantaged pupils living in areas with low levels of deprivation.

6. What impact has the pandemic had on children and young people's mental health?

Mental health and resilience are best understood as resources for life that can be positively or negatively impacted by our experiences of growth and development. Central to this is acquiring the capability and skills to navigate, negotiate and make sense of conscious and unconscious threat, more generally termed, stress. Adverse developmental experiences like trauma, abuse or neglect can have an immediate and potentially lifelong impact, triggering mental health problems. Evidence suggests that half of diagnosable mental health conditions emerge before the age of 14, with 75% doing so by the age of 24.[9] Even before the pandemic, poor mental health in late childhood and adolescence was a substantial disease burden across Europe,[10] with evidence that mental wellbeing had been declining in adolescents in Scotland.[11]

International evidence about the mental health impacts of the pandemic and the related restrictions on children, young people and their families continues to grow. In a recent systematic review that examined the mental health impacts of pandemics on children and young people, general levels of depression and anxiety were found to be higher.[12] Anxiety levels were found to be higher among adolescents than children. Studies also reported that adolescent girls had higher levels of depression and anxiety than boys.[12]

6.1. Mental health-related accident and emergency attendance

The extent to which mental health-related accident and emergency department (ED) attendances have varied across the pandemic period provides one indicator of

impact. This is demonstrated in Figure 3 below based on data from Public Health Scotland's **wider impacts dashboard**. This shows that significant reductions in presentation were seen across all age groups approximately corresponding to lockdown periods. While presentations in those aged 18 and over have generally been lower or similar to those in 2018/19, during other periods, for those aged 5–17 the picture is more concerning. Presentations in this age group were at least equivalent to 2018/19 in the second half of 2020 and around 20–30% higher from April–July 2021. Subsequent months have seen more variability in presentations, with a sharp rise observed during January 2022.

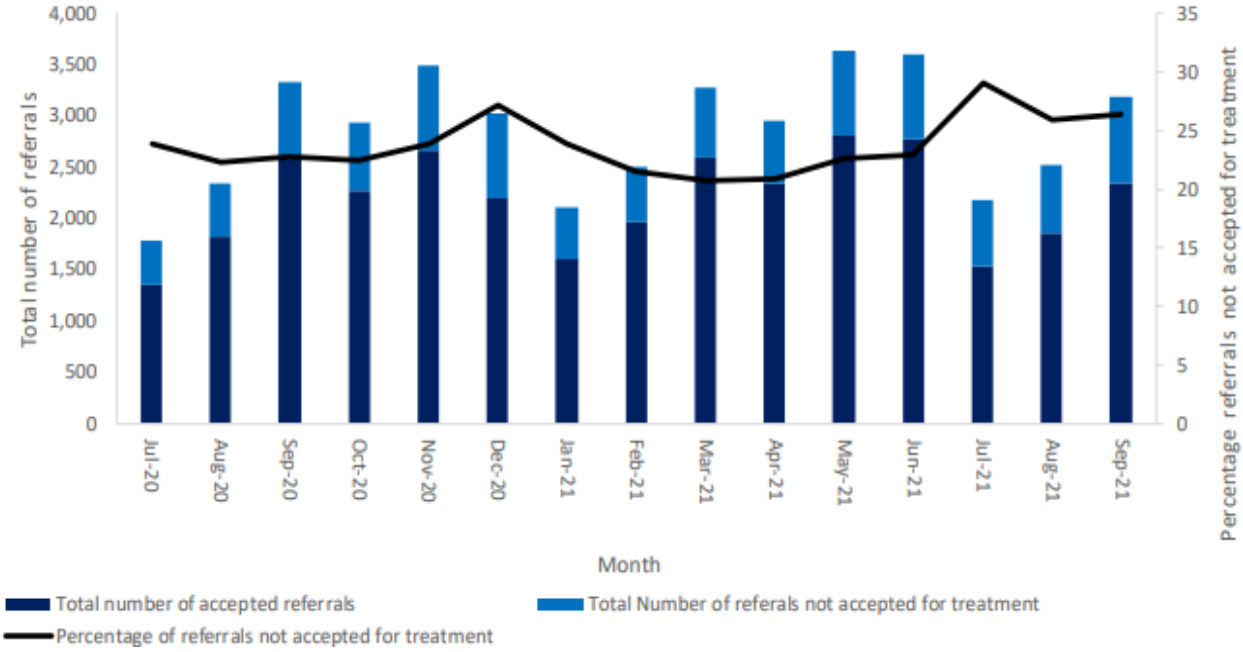
Figure 3: Mental health-related ED attendance by age group (% change from 2018/19 average; 3-week rolling average)

6.2. Child and adolescent mental health services

Another useful indicator of the level of need and any impacts on service delivery are waiting times for child and adolescent mental health services (CAHMS). Updated waiting times for CAHMS (for the quarter ending 30 June 2021) published by Public Health Scotland show a significant decrease in the number of referrals in the earliest months of the pandemic (quarter ending June 2020).[13] Following the easing of lockdown measures and reopening of schools, referrals increased through the quarter ending December 2020, declining as lockdown measures increased in early 2021. Referrals increased in late spring and early summer 2021, with 10,193 referrals for the quarter ending June 2021. However, the most recent waiting time

figures published in December 2021[14] show a reduction in referrals from July to September 2021 (n = 7,882). This pattern is in keeping with typical reductions in referral over the summer months but referrals remain higher than for the equivalent period in 2020 (n = 7,455).

Figure 4: Total number of referrals July 2020 to September 2021 (subdivided by accepted and not accepted for treatment or redirected to another service)



Notes: Orkney was unable to submit data since October 2020, NHS Shetland resubmitted March 2021 and NHS Fife resubmitted data which affects data referrals from October 2018 to March 2021.

The **Public Health Scotland interpretation of these data** suggest that COVID-19 has impacted CAMHS service delivery across Scotland, with NHS Boards having to rapidly change the way services were delivered to maintain the service. Most have shifted to a mixture of delivery via telephone consultation, digital means and in-person consultation. While there is variation between Boards, an overall reduction in face-to-face contacts and increase in video or telephone contacts has continued.

The early stages of lockdown saw the number of patients seen by CAHMS fall from over 1,400 in February 2020 to 955 in April 2020. The number of patients seen has

since fluctuated, but the average number of patients seen for the quarter ending June 2021 is the highest in the trend at 1,517.

6.3. Eating disorders

Eating disorders frequently develop during adolescence.[15] Since the pandemic began, several CAHMS services have reported significant increases (30–280%) in the number of referrals.[16] The Scottish eating disorder services review also highlights a substantial increase in the severity of referrals.

6.4. Suicides

Overall, there were 33 probable suicides recorded for those aged 19 years or under in Scotland in 2020.[17] Of these, two were in the 10–14-year age group with the remainder among those aged 15–19 years. The vast majority of these deaths were among young males (27 compared to 6 in females). In 2019, there were 38 probable suicides recorded for these age groups.

In this section, we have highlighted a number of indicators related to child and adolescent mental health. Together these data suggest that there is some evidence of increased mental distress among children and young people. Increased ED attendances and severity or complexity of referrals could also suggest that mental health needs are not being met elsewhere in the healthcare system.

Timely, effective interventions can offset the impact of adversity and restore children to a healthy developmental trajectory and improve their life chances. Primary prevention such as addressing child poverty and providing safe, nurturing environments that support children's physical and emotional development, early intervention and access to mental health care will be essential.

7. What do we know about the impact on families?

Undoubtedly, the pandemic has had a significant impact on family life across Scotland. Since March 2020, families have had to juggle school closures, online learning, working at home, financial pressures or loss of employment. These stresses have been alongside less support from family and friends, closure of services and activities that families rely on, and increasing strains on relationships. Some children and their families will also have faced bereavement due to the pandemic.

Alongside these challenges, many families are also likely to have experienced positive impacts, with the pandemic enabling them to spend more time together as a family and at home, less time commuting and more time in their local community.

7.1. The COVID-19 Early Years Resilience and Impact Survey

For families with young children (aged 2–7 years), the COVID-19 Early Years Resilience and Impact Survey (CEYRIS) study reported that parents believed that their children slept less well during the first lockdown period and that their children's behaviour was worse than before the pandemic. The report found that these children had lower strength and difficulty questionnaire (SDQ) scores than expected for this age group. In addition, parents reported poorer mental wellbeing themselves, which had a direct impact on their children. Families with older children believed that their children were lonelier, their mental health was less robust, and they were not allowed to do the things many young people would usually do.

Additionally, some families felt that it was more challenging to access services, even when those services were still operational, particularly for families in more disadvantaged circumstances. Families who received additional support before the pandemic, for example, from allied health professionals, also felt that this was less than optimal due to the infection control restrictions.

As well as the universal services, third sector organisations have continued to provide support to many throughout the pandemic. Families missed the opportunities

for support from informal or third sector organisations. For example, some new parents said that their babies had had little chance to interact with other people, such as in parent and baby groups, and that they were worried about their social development.

Home schooling had proved to be extremely difficult for many parents and their children. Not only is a considerable amount of digital equipment needed for large families, but parents who needed to continue working, either at home or outside the home, found the closure of schools and the need to home school very difficult.

In November/December 2020, Public Health Scotland ran the second round of the CEYRIS survey.[18] Eight months into the pandemic, this report highlighted that there remained ongoing challenges and negative impacts on a range of outcomes. One in six children (aged 2–7 years) were reported to not have played outside in the previous week. As the CEYRIS study began in 2020, there are no data to compare to levels of activity in 2019 to determine whether the extent to which this reflects average levels of outdoor play at that time of year. Again, a proportion of respondents reported that, although they had wanted to, they had not accessed services such as health visitors, social work or family support workers for a number of reasons including not knowing that the services were still operating.

When assessing their child's mental health and wellbeing using the SDQ, parents reported that 61% of 2–3-year-olds and 69% of 4–7-year-olds were close to average in their total difficulties score. While higher than the 53% of 2–3-year-olds and 64% of 4–7-year-olds who scored close to average in the first round of the CEYRIS study, these scores remain lower than those recorded in the Scottish Study of Early Learning and Childcare (SSELC) in 2019. The SSELC study found that 66% of 3-year-olds and 85% of 4- and 5-year-olds had a total difficulties score close to average.[i]

[i] It is important, however, to note that the CEYRIS and SSELC studies use a different sample and methods, so caution should be applied in direct comparison of findings.

7.2. Families with children living with a disability or severe illness

The pandemic has profoundly impacted on families with children with a disability or serious illness. Research conducted by the Family Fund said that around 80% of the participating families had lost formal and informal support due to the pandemic.[19] In February 2021, respite care alongside access to play and recreational facilities were still unavailable to most families. Financially, families with disabled or seriously ill children faced a triple burden of reduced income, increased costs and increased debt. Over half (56%) said their children had missed health assessments and reviews, 46% had missed hospital appointments and 27% had missed GP appointments.

Another Scottish study looked at the experiences of 16 parents of children with disability or serious illness from 13 of the 32 Local Authorities. These parents highlighted that physical care was being undertaken solely by parents, carers and siblings. Other sources of support were unavailable. Concerns highlighted included loss of autonomy for their disabled child, loss of respite care, impact on siblings and adverse impacts on mental health. Similarly, school building closures have been reported to have had a substantial impact on families with additional support needs and disabilities.[20]

7.3. Children with parents in prison

A report published in 2021 highlights the experiences of children with a parent in prison during the first national lockdown in the UK.[21] With all social visits to prisons stopped and disruptions to other forms of contact, caregivers described fraught relationships with the child in their care. Episodes of verbal and physical abuse towards other children and adults in the household were reported. Some children had developed new eating disorders and started to self-harm.

8. What do we know about the socioeconomic impact on families with children?

Poverty has a detrimental impact on children's outcomes, from pre-birth and throughout their life course. Pre-pandemic, it was estimated that one in three children would be in poverty by 2023. We know that child poverty was increasing prior to the pandemic and that the pandemic has exacerbated this, exposing more families to and amplifying pre-existing levels of social and economic inequality and poverty.[22] The measures introduced to suppress the virus have disproportionately affected low-income families with young children.[23]

Some households will be experiencing financial shock due to redundancy, unemployment or being furloughed. Others will be working in precarious, low-paid jobs. Analysis by the Joseph Rowntree Foundation[24] highlights that while many across the UK have faced significant financial challenges throughout the pandemic, this has hit those in poorer quality jobs and those experiencing in-work poverty the hardest.

During the first lockdown period, people in poorly paid or insecure jobs were most likely to lose their job or experience reduced hours. Workers on zero-hour contracts or temporary employment were four times more likely to lose their jobs, and lower-paid workers were twice as likely to lose their jobs as the highest paid. In addition, self-employed workers were three times more likely to stop working than people on permanent contracts. As with poverty, there is a gendered aspect, with mothers, including single mothers, disproportionately responsible for the extra care responsibilities, including home schooling and more likely to be interrupted in their paid work with those on lowest incomes at greater risk of losing their jobs.[25]

Owing to changes in income and employment, some households have struggled to meet their living costs, with the burden of rent, mortgage and subsequent threat of eviction or repossession.[26] The YouGov poll (Feb 2021) reported by Joseph Rowntree Foundation found that more renters were worried about being able to pay their rent than they had been in March 2020. Concerns were greater for private

renters than social renters and mortgage owners. Young people aged 16–24 years were more worried than they were last year about their ability to afford rent.

Further evidence of the financial impacts of lockdown is available from the coronavirus financial impact tracker survey published in March 2021.[27] Based on findings from individuals across the UK responsible for household finances (n = 6,071), nearly a third of families with dependent children were living on less income than in February 2020 due to the financial impact of the pandemic. Loss of income was 10% higher for families with than without children (27% vs 17%). Around 10% of households reported serious financial difficulty, with the proportion of single-parent households with serious financial problems increasing from 13% in July 2020 to 18% in January 2021. Additionally, 31% of families with dependent children reported using credit to make ends meet, compared to 15% of those without dependent children. This figure increases to 79% of families in severe financial difficulty.

A joint submission from **Aberlour, Child Poverty Action Group and One Parent Families (Scotland)** to the Scottish Parliament Social Security Committee highlighted that the pandemic has resulted in an increased number of families looking to charities for material support, often without knowledge of or facing barriers to accessing, statutory sources of financial support such as the Scottish Welfare Fund.

Food insecurity is the term used to describe running out of food due to lack of money or resources. Before the COVID-19 pandemic, one in 10 adults in Scotland had been worried about running out of food in the previous year.[28] Anecdotal, survey and case study evidence show that the pandemic has pushed families who are already experiencing food insecurity into more precarious positions due to factors including school closures and financial instability. For those previously free of food insecurity, a loss of earnings due to the pandemic means that a far greater proportion of the population may be at risk of having been pushed into poverty and therefore food insecurity. The emerging evidence suggests that demand for emergency food rose by 89% in April 2020 compared with the previous year and food bank use has more than doubled.[28] The Scottish Health Survey found that since lockdown began, younger adults (16–44 years) were more likely than others to say that they had eaten less or ran out of food due to lack of money or other resources.

We know that child poverty is not inevitable, and it is avoidable.[29] Stronger social protection policies for children and families can have a considerable impact on household incomes and prevent families being locked into poverty.

9. What do we know about the impacts on the child protection system?

The latest official statistics from the Scottish Children's Reporter Administration underline the significant impact the pandemic has had on the Children's Reporter and the children's hearing system in Scotland.[30] These exist to provide support to under 18s in Scotland who need care and protection or have allegedly committed an offence. Referrals are most commonly made to the Reporter by statutory agencies, including police, social work, health and education.

Between 1 April 2020 and 31 March 2021, referrals to the Reporter decreased by around 25% compared to 2019/20. This decrease sits alongside an increase in children with child protection orders (4.2%) following three years of declining numbers. Lack of parental care is the most common reason for referral and is more likely for younger children. However, of the children referred to the Children's Reporter, almost a fifth (17.4%) were under 20 days old and 43.7% were under 2 years. Thus, in part, a higher frequency of referrals for the youngest children is due to the urgency for protection required for very young children.

Children's hearings decreased by 46% from 2019/20, and pre-hearing panels by 92.4%. The early pandemic saw the hearing system focus on the most urgent referrals, with others rescheduled. The children's hearing system moved quickly to virtual hearings to enable the process to continue.

Joint reports to the Children's Reporter and Procurator Fiscal are made by the police when children have allegedly committed an offence. The total number of joint reports declined, but the absolute number of children in custody was the highest in the past four years (n = 56).

Additionally, challenges faced by other agencies are likely to have impacted the system, both in terms of referrals and capacity to support the hearing process.

10. What do we know about the impacts on the commercial determinants of health?

Commercial determinants of health are factors that influence health, driven by corporate activity motivated by efforts to make a profit. These include the marketing of tobacco, alcohol, gambling and foods that can be harmful to health.[31] The disruption to sales and industry response to these in Scotland due to the pandemic is yet unknown, as is the impact on purchasing behaviour and consumption.

Leading producers of alcohol, fossil fuels, infant formula, tobacco and ultra-processed food and drink products have sought to capitalise on changing markets, using adaptive marketing and product promotion, and pursuing partnerships and collaboration to further their strategic objectives but which falsely depict shared goals related to health. These corporations have the means to shape policy environments to boost profits.[32] There is also some evidence that stress due to the pandemic and associated restrictions may have impacted the way in which substances such as alcohol and tobacco are used in the context of coping.[33]

10.1. Tobacco

Evidence suggests that smoking is associated with increased severity of disease and death in hospitalised COVID-19 patients in Scotland.[34]

The impact of the pandemic on national smoking and smoking cessation rates is not yet fully known. The percentage of pregnant women who are current smokers at booking declined from 30.7% in 1998 to 13.8% in 2020, and continued to fall to 13.1% in 2021.[35] However, rates remain concerning and higher than in many other European countries. In addition, clear socioeconomic inequalities persist, with women living in the areas of highest deprivation around 10 times more likely than those in the least to be recorded as current smokers at their booking appointment.

It may be that engagement with pregnant women via telephone and over the internet has provided new opportunities to highlight the dangers of tobacco use on health. However, lack of in-person contact increases the likelihood that opportunities to make a difference for women and babies who are most vulnerable to the risks of tobacco use were also lost. Although lockdown restrictions may have translated into more time spent outdoors for children and families, they may also have increased exposure by children and young people to second-hand smoke within the home. Evidence tells us that younger age groups are more likely to be subject to second-hand smoke in the home.[36]

COVID-19 has resulted in redeployment and changed ways of working by public health staff and others involved in smoking prevention and cessation, resulting in disruption to measures to prevent and reduce the harm caused by tobacco. It is unclear whether this has impacted on the number of people engaging with and the success of their attempts to quit smoking via smoking cessation services. In-person access to GP services in Scotland for support with smoking cessation was variable and limited. Changes in access bring both opportunities for and barriers to engagement, with constraints being more likely to affect the most vulnerable. Emerging data suggest 36% of surveyed adult smokers smoked more during lockdown, with only 8% of adult smokers smoking less.[36]

10.2. Alcohol

A paper published by Public Health Scotland suggests that the Scottish population drank less alcohol during the first lockdown period (March 29 to 11 July) than at a similar point in time in previous years. However, solitary drinking increased.[37] In early 2020, before the first lockdown, total alcohol sales in Scotland were lower than the 2017–19 average. Although the week before lockdown saw a 42% increase in off-licence sales, this did not replace the on-trade sales lost. Overall, from the end of March to 11 July, alcohol sales reduced by around 6%. However, as this does not capture online sales or takeaways from on-trade premises, it may be underestimated.

While this study of the early pandemic period in Scotland offers some reassuring findings, the full effect of the pandemic and associated restrictions on alcohol use

across our population is still unknown and complex to disentangle. Harmful consumption patterns and alcohol-related harm vary across different population groups linked to factors like education, gender, age and socioeconomic status. Owing to stress, pressure and uncertainty, alcohol may be used by some as a coping mechanism, further increasing consumption levels. The effects of increased consumption in the home and related behaviour in those living with children and young people may increase the potential of harm to some children. Scottish Families against Alcohol and Drugs noted an increase in interpersonal and domestic violence within the home in calls to their helpline for associated issues, alongside increased police attendances due to disturbances in family homes.[38]

A specific area where alcohol consumption can cause significant harm to children is during pregnancy resulting in fetal alcohol spectrum disorders (FASD). A lifelong and preventable neurodevelopmental disorder, FASD is estimated to affect around 3.2% of the population in the UK. However, pre-pandemic, FASD was under-identified in Scotland, with recent Scottish Intercollegiate Guidelines Network (SIGN) guidelines covering measuring alcohol use during pregnancy and assessment of FASD.[39] The rate of alcohol spectrum disorders in children born throughout the pandemic is currently unknown. Still, if alcohol consumption was higher in pregnant women during the pandemic, the proportion of children affected by FASD is likely to have increased.

While there is clear potential for long-lasting harm to children through changes in alcohol consumption patterns in parents and carers, the pandemic may have resulted in some improvements to alcohol consumption in the under 18s. Reduced socialisation with peers and limitations on drinking in public places may have delayed onset and reduced the volume of alcohol consumption.

10.3. Food

As we've highlighted, food insecurity has increased during the pandemic for those living in poverty or on a low income. Alongside the rise in the number of families experiencing an inadequate diet due to widening inequalities, it is important to consider other pandemic impacts on diet and physical activity.

The pandemic has changed the food we eat and how we buy it. A report by Food Standards Scotland (FSS) comparing January to July 2020 with a similar period in 2019 found a 44% increase in food and drink purchased in the week before lockdown, with higher purchases on food and drink for consumption at home maintained during the first lockdown period. However, this does not take into account out-of-home purchases which are likely to have reduced during this early period, so purchasing may not be greater overall.[40] The types of food bought also changed with increases in total fat, saturated fat, sugar, carbohydrates and sodium, and calories purchased from March to July 2020. FSS plan to publish a report covering the latter half of 2020 in 2021.

Children's weight and growth is an important indicator for their overall nutrition and physical health. Being smaller in height, or being under or overweight for age can suggest a health problem. In Scotland, weight and height are recorded through the child health programme and child health reviews. The **universal Primary 1 review measurements** are used to estimate the prevalence of overweight and underweight children in Primary 1 in Scotland. However, disruptions to the child health school system due to the COVID-19 pandemic meant that coverage of the Primary 1 review fell substantially in 2019/20 to 41%, as height and weight measurements could not take place. In the school year 2019/20, around three out of four (76%) Primary 1 children measured had a healthy weight, while more than one in five (23%) were at risk of overweight or obesity, and 1% were at risk of being underweight.

The latest available figures, published in December 2021,[41] cover 2020/21. In 2020/21, 69.8% of the Primary 1 children measured had a healthy weight, 29.5% were at risk of overweight or obesity and 0.8% were underweight. The percentage of children with an unhealthy weight had increased substantially from 22.7% (95% CI 22.3–23.1%) at risk of overweight or obesity in 2019/21 to 29.5% (95% CI 29.0–30.0%) in 2020/21, with marked socioeconomic inequalities remaining. Among children living in the most deprived areas, there was an 8.4% increase between 2019/20 and 2020/21, to 35.7% at risk of overweight or obesity. This compares to a 3.6 percentage point increase, to 20.8%, in the least deprived areas.

The Scottish Health Survey also provides estimates of the proportion of 2–15-year-olds in Scotland who are under or overweight. Unfortunately, there are no up-to-date

data available on their estimates for children. However, based on a telephone survey in August/September 2020, the Scottish Health Survey reported that 43% of adults said their weight had stayed the same, 39% that their weight had increased and 18% that it had decreased since lockdown began.[36] Data covering 2021, and the ongoing impact of the pandemic will be available in 2022.

10.4. Gambling and gaming

For many people, the COVID-19 pandemic significantly reduced face-to-face interaction and increased screen time. 'The COVID effect' saw website and app use by children aged 4–15-years-old in the UK increase by more than 100% from January 2020 through January 2021, with the average daily time spent on apps increasing by 15%.[42] Digital technology offered education, entertainment, a way to connect with the outside world and family and friends, and a supportive community whatever your identity or concern.[43,44]

However, this was not without risk of children and young people experiencing a range of online harms, including exposure to distressing age-inappropriate content, exploitation and cyberbullying. Although these concerns existed before the pandemic, the significant scale shift to online education and socialisation may have exacerbated the risk of these harms. As we have previously mentioned, we also know that a digital divide exists in access to IT equipment and data. In addition, the opportunity cost of time spent online, including loss of face-to-face peer and family interaction, lack of physical exercise and poor-quality sleep, may negatively impact a child or young person's social and emotional development as well as their physical and mental health and wellbeing.[45]

The overwhelming majority of children in the UK play video games.[44] The World Health Organization have formally designated gaming disorder a behavioural addiction.[46] This is an emergent area. The prevalence of gaming disorder among children and young people in Scotland and the impact of the COVID-19 pandemic is unknown. Many major games are monetised with add-ons and in-app purchases, including gambling-style products such as loot boxes[47] with many experts calling for these to be regulated as gambling products. There is growing concern over the

exposure of children and young people to gambling and gambling advertising, sponsorship (especially sports) and direct marketing online.[48]

Despite being legally too young to gamble, over half of young people aged 11–16 years old in Scotland have done so. Evidence suggests that 1.9% meet clinical criteria as a 'problem gambler' (DSM-IV-MR-J screen) with a further 2.7% 'at-risk' of problem gambling. This suggests that at any given time around 15,000 children and young people in Scotland are experiencing some level of harm associated with gambling. However, the impact of children and young people spending more unstructured, in many cases unsupervised,[49] time online during the COVID-19 pandemic on gambling participation risks and harms has not yet been quantified.

11. What do we know about the impact on substance use?

There is some indication that the pandemic has been associated with increased challenges for those living with substance use. The pandemic changed how treatment and other support services were delivered and accessed, as has prevention and early intervention work with children and young people. Overall, however, there remains limited understanding of the direct experience of children living in families affected by substance use or how the picture has evolved for these families over the prolonged course of the pandemic in 2021.

The largest recorded number of drug-related deaths in Scotland (1,339) was seen in 2020 – a 5% increase from the previous year.[50] Around two-thirds of drug-related deaths are among those aged 35 to 54 years, with fatalities almost three times more likely in males than females. In addition, those living in the most deprived areas were 18 times more likely to die than those in the least disadvantaged areas. Statistics about **drug-related hospital admissions in 2020/21** was published by Public Health Scotland in late autumn 2021, featuring data on under 25s. This will provide further information about the impact of the pandemic on substance use among younger people in Scotland.

A Scottish Families Affected by Alcohol and Drugs (SFAD) report highlights some of the impacts on families affected by substance use.[51] From March to November 2020, they recorded an increase of 80% in calls to their helpline compared to the same period in 2019. Helpline calls increased most in those concerned about their substance use, those who were unsure where to seek support or who had been unable to contact their local treatment services.

SFAD highlights that in addition to increases in contacts about concerns about alcohol, benzodiazepine and cocaine use, they had seen a 2,157% increase in calls about having no money or food and a 1,314% increase in concerns about mental health issues. These increases in contacts about money, food and mental health were from a very low level, indicating the significant and interacting challenges families affected by substance use have experienced due to the pandemic.

The report highlights the value of Scottish Government funding for digital support to families, including phones, data and tablets. It highlights that these enabled families to remain connected, receive support from the service, contact family members and provide autonomy to manage aspects of their day-to-day lives.

12. What has been the impact on sexual health and wellbeing?

The impact of COVID-19 has meant the removal of available supports that enable young people to prevent unintended pregnancy and other sexual health issues, such as sexually transmitted infections (STIs). This includes education in schools, loss of youth work services and most sexual health service provision and is likely to have the most significant impact on those more vulnerable or who generally fail to engage.

Evidence demonstrates that young people appeared to be undervaluing their sexual health needs during the pandemic and were reluctant to contact services for support. Findings from the Conundrum research study with young people on condoms and contraception found that emerging barriers to STI and pregnancy prevention within the context of COVID-19 increased existing barriers and potentially widen

inequalities.[52] The paper also found that young people reported feeling uncertain about changing professional advice on preventive practices and did not find new service delivery models, such as remote consultations, easy to use or engage with.

In the five years before the pandemic, there were increases in the acquisition of bacterial sexually transmitted infections in young people across Scotland, specifically chlamydia and gonorrhoea.[53] What the impact of the pandemic has been on STI transmission in young people is currently unknown. Issues include reductions in testing capacity, clinic availability, laboratory capacity and disruption to the national surveillance capacity.

Re-engagement by young people in services as they recover and re-open is also a potential cause for concern. Issues with the centralisation of services, inability to deliver at a local level due to building access and a necessary move away from walk-in/drop-in delivery models due to COVID-19 infection risk are key factors in this.

13. What has been the impact on play, physical activity and use of greenspace?

The importance of free outdoor play for a child's mental, physical, social and emotional development is well documented. Natural spaces are important for social connections, and nature positively supports children's wellbeing. However, our recent experience of COVID-19, and the impact of the measures put in place to reduce its spread, have meant that not all children have been able to take advantage of the time to play outdoors in natural spaces and that these negative impacts may be distributed unequally.

On the other hand, COVID-19 has presented opportunities for acceleration of measures to re-allocate urban space to active travel and street play and has re-emphasised the potential positive contribution of outdoor recreation and learning for infection control, as well as its wider benefits. For some families, a shift to working from home will have provided more opportunities for parents and carers to spend time with their children in play or physical activity.

The first **Public Health Scotland COVID-19 Early years resilience and impact survey (CEYRIS)** survey in June to July 2020 found that during the early period of the pandemic when access to the outdoors was limited that three in 10 children spent less time outside than previously, and in the week before the survey three in 10 children had not been to a park or greenspace at all. In the two weeks before the survey, 14% of children had not met up with anyone outside their own household. Particularly worryingly, children from low-income families were less likely to have access to or make good use of outdoor spaces and active play opportunities. They were less likely to have a garden at home or to reach local good quality greenspace, and they were less likely to spend time outside.

Play Scotland's children and young people's consultation[54] described the types of play enjoyed by children, where they wanted to play, and the difference COVID-19 made to those ambitions. This included the impact of the lack of contact with friends, classmates and family members, including missing school and activities, clubs and services. Most participants emphasised how much they missed their friends and many said they were sad and disappointed that they could not see them. A number of children and young people said that they were lonely and bored. However, children also reported positive impacts, including spending time with their families, taking walks and playing games. Children and young people with disabilities and additional support needs reported not being able to access the services they needed with their families having to meet their complex needs. This was of significant concern to them and their families.

The pandemic has highlighted that access to greenspace is not equal but essential for the social and emotional wellbeing of our children and families.

14. What impact has the pandemic had on the workforce?

The scale of change that the national and local health, education, government and third sector systems have needed to navigate in the past year has been enormous. They transformed at speed, shifting models of delivery to digital environments and

developed measures to provide more significant support to children and families in greatest need. As highlighted, this has included food for those who received free school meals, and IT equipment and materials for children and young people at risk of digital exclusion.

These systems have tried to keep schools, and early learning and childcare open, to continue to deliver key health and support services. They have developed and implemented measures to provide safe settings and transport, worked together to manage outbreaks and incidents, and taken steps to reduce the risk of children dropping out of school. However, many services also faced the redeployment of staff to pandemic response work, disrupting core business.

People working in children's services will have experienced many of the general stressors and emotional experiences of the pandemic, including personal and family illness, managing childcare within their own families and periods of isolation. Staff have had to face long working hours and, undoubtedly, this has had an impact on the wellbeing of the workforce that supports children and families across all sectors.

In their recent report, Audit Scotland[55] recognised that those planning, delivering and supporting school education worked well together before the pandemic. They suggest that this provided a strong foundation for collaboration to respond to COVID-19 rapidly. They highlight that the critical challenge across national and local systems for these stakeholders is to continue to work effectively together to continue this in recovery and address other collective issues. Resilience and wellbeing of the workforce has to be part of this.

15. What do Scotland's children and young people think?

In November 2020, the Scottish Children's Parliament published their national wellbeing survey findings 'How are you doing?'. The survey for 8–14-year-olds was conducted in September/October 2020 (n = 1,969) and it compared responses to previous survey results from April–June 2020 (n = 10,508 combined).[56] The survey

reported findings across six key themes, including: learning; family and friends; health and wellbeing; access to information, expressing opinions and experiencing rights; worries; and what makes you feel good at the moment.

In terms of learning, despite the significant shift to the use of digital platforms for learning at home, post lockdown and following return to school, children reported that they are less likely to feel safe online (regardless of age or sex). In addition, fewer children said that they enjoyed learning new things, could be creative and knew there were things they were good at. However, post lockdown, children reported they were less bored and had more fun things to do.

During and post lockdown, nearly one in three children reported that their parents or carers worried about having enough money. This reporting increased in younger children post lockdown. However, most children reported feeling safe at home (although it is recognised that a minority of children reported feeling unsafe at home). Most children enjoyed being with their family and reported getting along well together. Relationships with peers have strengthened on return to school.

There were signs of recovery with improved mood and a sense of self-efficacy in terms of healthy choices. However, results were mixed with a decline in 8–11-year-olds reporting that they have plenty of energy (the opposite being true for 12–14-year-olds where survey data show a degree of recovery). Younger children were also less likely to report knowing who to speak to if they had a question about their health. Post lockdown, children were more likely to report generally feeling cheerful and in a good mood, and less likely to report feeling lonely. Most children agree that they think they make healthy choices. Boys of all ages and older girls (12–14 years) report that post lockdown, they think they get enough exercise. Girls 8–11 years were less likely to agree with this.

The majority of children could access news and information. However, post lockdown and on return to school, there was a small decline in children reporting that they can get the information that they need, that they feel free to express ideas and opinions, and that they feel like their rights are respected by others.

Post lockdown, more children reported that there are lots of things to worry about in their life. Worries about their own health or that of a family member increased post lockdown. A small proportion of children reported that they do not have someone to talk to about their worries (4% during lockdown and 6% post lockdown). More than half of children were worried about the future and post lockdown, and more children were worried about money problems. Friends were identified as the most likely thing to make them feel better.

16. What does all of this mean for Scotland's children, young people and families?

It is evident that the pandemic has had, and continues to have, broad and potentially long-lasting impacts on Scotland's children, young people and families. Some of these impacts have been positive. For example, the pandemic has provided a chance to spend significant time together for many families, including spending more time outdoors and in greenspaces. The pandemic has also brought a collective will across services that support children and families, and a desire to collaborate and work together for effective action to prevent, mitigate and undo any adverse impacts of the pandemic.

Although this paper is not a comprehensive or systematic review, it highlights that issues with access to child health services endure and child development concerns are increasing. Mental health issues may have increased in severity and complexity. Impacts on attainment and loss of learning remain uncertain. Still, evidence from England suggests that all children may be impacted, with children already at a disadvantage experiencing the most significant impacts.

All aspects of children and young people's lives have been affected, with particularly stark impacts on single-parent families, those living with children with a disability or serious illness, families affected by substance use, and those with a parent in jail. Undoubtedly, this paper has not covered other groups of children, young people and their families that have experienced significant or enduring impacts.

There are reasons for concern in other areas that impact the health and wellbeing of children and young people, and the future health of the people of Scotland, including alcohol, tobacco, diet, substance use, gambling and gaming, and sexual health. Although we do not yet have enough information to understand the impact with any clarity.

The picture is incomplete, but together these challenges paint a picture that tells us that we must continue to work together to understand, mitigate and prevent broader harms to children and families.

The critical challenge across our national and local systems is working effectively together to highlight these impacts on children and young people, and promote recovery to prevent a lasting legacy of poor health and wellbeing. These systems have made tremendous efforts to react and meet needs over the past year, with great innovation, flexibility and collaborative working. A collective understanding of the broader impacts of the pandemic on our children and families enables us to strategically plan, resource and support the continuation of such approaches. We may still have a lot to learn about these positive and negative impacts of the pandemic and our response to it, but we cannot wait to take action to ensure the future health and wellbeing of our children, young people and families.

16.1. Suggested areas for action and consideration in future planning

16.1.1. Child health and health care

- Given the importance of early childhood health and development to future health and wellbeing, maintaining the capacity to deliver child health reviews and input data into the CHSP-PS system is vital. Health Boards could prioritise those who have had no review, a virtual review or missed their 6–8-week review as being of immediate concern.

- Families with young children are likely to have had fewer opportunities to interact with families with children of a similar age and might not be aware of

relevant developmental milestones. They should be encouraged to seek support from their health visitors if they have concerns about their child's development.

- Building on existing local and national work, further work by NHS Boards, Integrated Joint Boards, Scottish Government and Public Health Scotland may be valuable in understanding the increase in reported child development concerns, which groups of children are most affected and what interventions need to be strengthened and targeted to undo, mitigate and prevent these. Increased capacity for this work and resourcing of appropriate supportive measures and family support may be required.

- Local children's service partnerships should continue to work to support children and families with the challenges affected by the pandemic. They could include raising awareness with services and staff working with families with young children, to ensure that they are aware of the issues facing young children and their families. They have a crucial role in helping them to understand the potential impact of the pandemic on their child and their family. It will be important for staff to help them access early and appropriate assessment and support.

- Pregnant women should be encouraged to access services and engage fully with antenatal care, including having their recommended vaccinations. These women may need support to facilitate their attendance (e.g., travel and childcare). This can also be a valuable opportunity for antenatal and child health services to target pregnant women at risk of child poverty through income maximisation interventions.

- Parents of children born during the pandemic may have less knowledge about common childhood illnesses and injuries and lack confidence in how and when to seek care. NHS Health Boards and Integrated Joint Boards could consider how professionals who understand child health and paediatric disease could provide initial support to parents on managing common childhood illnesses and injuries.

- Understanding whether the changes that have been seen in hospital and urgent care are driven by reduced health care needs or issues with access to or availability of community-based paediatric health services is a key area for potential action. Public Health Scotland may wish to explore the underlying causes of emergency department attendances and reasons for planned and unplanned paediatric admissions in 2020, 2021 and 2022 compared to pre-pandemic rates and reasons for this.

- Fluctuations in birth rates associated with the pandemic will have implications for the future planning of children's services. Therefore, understanding the full impact of these fluctuations on child cohort sizes would be helpful in the coming years. This monitoring may be an area for action that Public Health Scotland could explore.

- The pandemic has significantly impacted on children and young people's mental health. In keeping with existing local and national efforts, the mental health and wellbeing of children and young people should continue to be a key priority demonstrated through ongoing investment and support for local partnerships. Actions could include the provision of information, and implementation of approaches to support and improve mental health in all services that children come into contact with and accessible services.

- Recognising the potential for increased levels of sexual exploitation and sexual abuse experienced by children and young people during the pandemic and of the resulting impact of this in the short and longer term. There will be increased demand placed upon our health, education, social care, third sector and criminal justice services. Trauma informed practice and support will be essential to manage cross sectors working to ensure a whole-systems approach is taken to prevention and mitigate the impacts of abuse.

- Building an understanding of the long-term health, wellbeing and educational impacts of the pandemic on this cohort of children and young people is important. This will help identify any increased service need to enable workforce and service planning. It would be helpful to consider how routinely

available data and published evidence may be able to aid this understanding. Public Health Scotland may wish to explore this.

- Ongoing cross-sectoral information sharing and coordinated action will be needed to address the broad and interacting impacts on children, young people and their families. Efforts to support this could include mapping the local children's' services plans in place or the development of a dedicated national child and adolescent health and wellbeing strategy aimed at recovery from the pandemic and enabling coordinated cross-sectoral training and development and delivery of services.

- Dedicated action to support the health and wellbeing of young people is needed. Restoring youth friendly health, sexual health and vaccination services and strengthening the School Nursing Service may be valuable contributions.

16.1.2. Learning and education

- Given the early emergence of developmental concerns, local areas could consider providing additional support to improve learning environments before the age of two to reduce the gap on entry to early learning and childcare, for example, providing mechanisms for families to access toys and books. This extra support is essential in communities experiencing high socioeconomic deprivation or who have limited access to resources and activities in remote or rural communities.

- Access to high-quality early learning and childcare can help improve developmental outcomes for children experiencing socioeconomic or other forms of disadvantage. Parents of eligible 2- and 3-year-olds may need encouragement to take up places. This might be achieved through various means, including via health visitors and Local Authorities reaching out to these parents.

- A needs assessment for children living with a disability or severe illness and their families would be beneficial. Understanding their experience of the

pandemic and their challenges would usefully inform plans for future support and resilience of service delivery.

- It will be essential to provide active support for the restoration of community-based learning and activities for children and young people, and the use of community spaces to achieve this. This could be the provision of play-based programmes and opportunities for parents to ‘stay and play’ or participate in activities for younger children. It could include recovery of breakfast and supper clubs, out-of-school care and schemes that support income maximisation for families. For older children and young people, community-based youth work programmes and groups have an important role to play.

- Local children's service partnerships should make particular efforts to ensure that lived experience of children with disabilities and their families is integral to planning in all services as part of the realisation of their rights and consider further work to ensure any backlog of health and care needs. Improving the collection of data for these children and their families would also be valuable.

- Maintaining education is vital for children and young people. Consideration could be given to the potential for blended or online learning models for children who have additional health needs or disabilities who may benefit from this at times, taking into account their individual needs and right to inclusion.

- Given the financial pressures that our young people are going to face in the coming years with reduced employment opportunities and increased inflation, there is value in revisiting Naomi Eisenstaedt’s ‘Life chances of young people’ and thinking boldly about how to increase life opportunities and financial support for our young people.

16.1.3. Family support

- Universal services have a role in supporting parents to access community learning and development, income maximisation and advocacy services or mental health support. Addressing increased child poverty will need to tackle the rising costs of living, low-paid and insecure work, and housing costs. It will

also need to improve the affordability and accessibility of transport, food, housing and childcare, and improve the uptake and value of social security and other benefits.

- It will be important for Local Authorities and Health Boards to prioritise and build on existing work to address child poverty in Scotland, for example, by strengthening local child poverty action reports in light of the impacts of the pandemic, providing clear referral pathways and increasing public awareness of the support that is available.

- Given the importance of access to green space for overall health and wellbeing, identifying those children and families most at risk of lacking access to greenspace could be prioritised. Building on the work that has been done to reallocate roads for active transport routes and street play, consideration could also be given to how planning policy and systems can ensure that those within urban environments have access to greenspace through gardens, or good quality, local communal greenspaces. Local Authorities may wish to consider Children's Rights and Wellbeing Impact Assessment of their planning systems to support safe access for all children and families.

16.1.4. Workforce

- Universal services, including primary care, maternal and child health, dental care, early learning, childcare and schools, have a pivotal role in ensuring the safety and wellbeing of children and supporting families. These services help prevent problems from escalating and enable children, young people and families to access targeted or specialist support when needed. Ensuring the resilience of these services and their workforce is essential to mitigating the current impacts of the pandemic and preventing further effects. Actions such as protecting staff from redeployment and supporting staff wellbeing would be beneficial.

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