The impact of COVID-19 on children and young people in Scotland

2 to 4 year olds

Contributors:

Lynda Fenton

Fiona Myers

Darren Rocks

Deborah Wason

Mairi Watson

Megan Watson

Jane White

Kate Woodman

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Key messages

- 1 COVID-19 and in particular the infection control measures, including lockdown, have had a profound impact on 2–4 year old children in Scotland.
- 2 This age group sees rapid development and it is important that children are able to develop fully at each stage if they are to reach their full potential later.
- 3 Family environment – parents felt that lockdown had enabled them to maintain good relationships with their children except for a small minority who felt their relationship with their child had worsened.
- 4 Physical development – children had largely remained active in lockdown although quality of sleep for many children had deteriorated.
- 5 Social development – many families saw a reduction in their income and parents often exhibited a high level of stress which would have affected the children.
- 6 Learning experiences – at this age it is important children have the opportunity to mix with other children. This was severely restricted during lockdown. In addition, not all children were able to access good quality outside space easily, and this was associated with household income, so active play was also restricted for some children. However, parents saw an increase in their children's imaginative play.
- 7 Children's play began to reflect their experience of COVID-19 factors such as isolation, curtailment of access to services and even death being apparent in their imaginative play.
- 8 Development and wellbeing – Strengths and Difficulties Questionnaire (SDQ) scores for this age group showed a large decrease in those children scoring 'close to average' compared to a similar cohort of children assessed in 2019, showing that a substantial proportion of children were suffering from mental health and wellbeing difficulties during lockdown.
- 9 Access to services – an important minority of parents found it difficult to access children's services during the pandemic. However, 70% of parents had indicated that they would have liked help with their children's response to COVID-19 during lockdown.

10 While some services were maintained, especially immunisation, other services were more limited, in particular child health reviews by health visitors, access to dental services and lower use of emergency services. As need was unlikely to have dropped this suggests children were not always receiving the care they needed.

1. Introduction

On 23 March 2020, the Scottish Government placed Scotland into lockdown as an emergency public health response to control the transmission of COVID-19.

Although children are less likely to suffer the direct health consequences of COVID-19, the pandemic, and associated infection control measures, are likely to have a significant impact on their development, health and wellbeing, education, and family income. Some of these impacts may prove to be positive, providing useful learning about measures which can improve child health. Others, though, may be negative and increase the risk of children experiencing adversity. These may require mitigation, both in the immediate and longer term. Whether positive or negative, it is likely that these impacts will not be equally distributed, and may, in fact, widen existing inequalities.

We know that there is a socio-economic gradient in children's health and development, with children in the lowest socio-economic groups having poorer health and education outcomes than children in higher income groups. These differences can lead to children experiencing adversity while also removing the opportunity for some positive experiences. Many children are already experiencing adversity in Scotland. Adversity in childhood, including growing up in poverty, is associated with poorer educational attainment and employment prospects and risks of experiencing violence. Growing up in adversity can be damaging for children and can have life-long impacts. Emotional and physical abuse and neglect, and exposure to domestic abuse and mental health issues, for example, have all been associated with a range of physical and mental health issues. Increasing our understanding about the types of experiences which children may have been at heightened risk of exposure to during the pandemic, as well as the protective factors in their lives, is important in informing future action.

The following is one of a planned series of papers that will consider the possible positive and adverse consequences on children's and young people's development

and wellbeing at different ages and stages of their lives.^a The purpose is to provide evidence to support planning and action to reduce or prevent negative outcomes (including in the event of future 'lockdowns'), and promote positive futures for this generation of children and young people.

Each paper will draw on three sources of evidence to identify and assess the possible immediate, medium- and longer-term impacts on children and young people's development, and health and wellbeing:

- 1** Review-level and other evidence outlining what we already know about children's and young people's development and the likely impact of COVID-19 and infection control measures, particularly for those groups already at risk of poorer outcomes.
- 2** Recent or current surveys and research being undertaken exploring with parents and carers, and with children and young people, their experiences of lockdown and beyond, as well as the impact this has had on them and their lives.
- 3** Available health surveillance data and data on relevant children's and young people's service availability and usage during and beyond lockdown in Scotland.

The attached technical appendix provides more detail on the types of evidence included in each of the papers. It is, though, important to bear in mind that much of the evidence on the impacts of COVID-19 on children and young people is still emerging and changing in response to both the patterns of transmission and the measures removed, or re-applied to control the spread. A further point to note is that where evidence or data is available this may still be incomplete, in different ways. Service use data, for example, takes time to collect and summarise. Online surveys may not be able to recruit representative samples, with the result that the voices and experiences of some children and young people may not be heard, e.g. those living in deprived communities, or from black and minority ethnic communities. There may be other substantial gaps in the evidence base which also require to be filled. This

^a These will broadly cover: conception to 2 years, 2 to 4 years, primary school-aged, secondary school-aged, 18 to 25 years.

series of papers, however, indicates the current state of knowledge. As new information and evidence becomes available over time it is hoped that these papers will be updated and used to contribute towards protecting the futures of all Scotland's children and young people.

2. What does child development look like for those aged 2 to 4 years and how might it have been affected by COVID-19

2.1 Developmental milestones

Child development refers to the sequences of physical, language, thought and emotional changes that occur from birth to adulthood. A child progresses from being dependent on their parents or carers to increasing independence.¹ Skills are acquired sequentially with later abilities dependent on the achievement of early developmental goals within the same domain. For example, a child will learn to sit independently, and then to stand, and then, eventually, to walk. A child's early learning development includes how they interact and communicate with others.¹ Children's development and wellbeing in the early years is important for their future outcomes.² The acquisition of a skill, such as walking, is referred to as a milestone. Children need opportunities to practice newly developed skills in a supportive social environment. Through taking part in social interactions with familiar and unfamiliar adults and children, children's social development is supported. Reduced learning opportunities may delay the development of key skills.

Figure 1: Development Milestones (2–4 years)³

Age 2 years³

- Runs safely
- Typically uses two-word combinations
- Follows two-step instructions
- Does circular scribble with a crayon/pencil
- Mostly uses preferred hand
- Turns pages of a book singly

Age 2½ years³

- Jumps with two feet together
- Throws and kicks a ball
- Draws a circle in imitation
- Uses pronouns 'I' and 'you'
- Understands action words
- Provides a verbal commentary during play

Age 3 years³

- Walks upstairs with alternating feet
- Cuts with toy scissors
- Holds a pencil near the point and copies circle
- Asks 'what?', 'where?', 'who?' and 'why?' questions
- Matches colours
- Joins in make-believe play with other children

Age 4 years³

- Stands on one foot and hops
- Holds a pencil in a dynamic tripod grasp, copies a cross and draws a person with head, trunk, legs, arms and, usually, fingers
- Is able to relate recent experiences, using grammatical and intelligible sentences

- Rote counts (counts numbers from memory in order) to twenty, and counts objects to five
- Shows sympathy for other children in distress
- Recognises own name in print

Children's social, emotional, cognitive and physical development is affected by a wide range of interacting factors including biological and environmental influences.² The quality of the social and physical environments that children experience, and are

exposed to, is key.² While family characteristics, such as parental income and education, do not necessarily determine children's development and wellbeing outcomes, they shape the environments in which children live and learn.² The public health measures to control the transmission of COVID-19, such as closure of early learning and childcare facilities, restrictions on movement and physical contact with family and friends are likely to have significantly changed the environments that young children experience, as demonstrated in Figure 2. Some of these influences on childhood development are detailed below alongside findings from recent or current research and surveys highlighting the potential implications of the COVID-19 infection control measures on the development of young children.

2.2 Family relationships

The attachment relationship that has developed between children and their parents or primary care giver since birth will be an important factor in determining how resilient children are in the current times. Secure attachment is a known protective factor for children's later social and emotional wellbeing.⁴ In addition, parenting styles contribute to children's social, emotional and behavioural development. Warm, sensitive parenting supports the development of social competencies such as emotional regulation, attention control and pro-social behaviours, which have been linked with school success.⁴ Strong family relationships and supportive parenting can help mitigate the adverse effects of living in disadvantaged circumstances.⁴

The UK-wide Office for National Statistics (ONS) study 'Parenting in Lockdown',⁵ found that for children aged under 5 years, men spent an average of 149 minutes per day on childcare and women 265 minutes. Of this, men and women spent an average of 77.8 and 95.7 minutes respectively on 'developmental childcare'^b and

^b The ONS study defines Developmental childcare as activities where caregivers are undertaking activities with the aim to develop a child's cognitive development. This may include activities such as reading to children, playing with children or helping children with their school work. Non-developmental childcare is not specifically defined.

62.8 and 125.6 minutes respectively on 'non-developmental childcare'. The English Co-Spyce survey, focusing primarily on 2–4 year olds, illustrates how parents felt about these activities in the context of lockdown:

- 37% of parents found keeping their child occupied stressful.
- 55% worried that they were not doing enough with their child.
- 53% of parents were confident that they had ideas about ways to play with their child.
- 47% felt only a little bit confident, or less, about entertaining their child.⁶

Figure 2: Lockdown measures and potential influences on child development and wellbeing

Adapted from Sharma 2011, p163 and Mary Sheridan

The implications of this are suggested by the UK-wide Understanding Society analysis of family relationships under lockdown, including the potential gender differentials.⁷ In relation to households where the youngest child was aged 0–4 years old:

- 34% of parents indicated that they had better relationships with their children than before lockdown
- 61% felt that relationships were about the same
- for 5% relationships were worse.

In these same households:

- 98% of parents felt very or quite close to their child
- 26.2% got on each other's nerves
- 60% quarrelled.

85.4% reported that they ‘talk about important matters’ with their child.^c Although the data are not age specific, overall mothers were more likely to report improved relationships with their children than fathers (28%; 24%); lone parents were slightly more likely to report a worsening of relationships with their children (7% compared to 4% in cohabiting or married samples).

2.3 Biological influences

Biological influences on children’s development and wellbeing include their genetic make-up, vision, hearing as well as their general health (including sleep patterns) and nutrition. Good vision and hearing support the development of verbal and non-verbal skills. Impairment, if uncorrected, may significantly affect development.³ In addition, nutrition is important for children’s healthy development and wellbeing. Nutrients such as iron, zinc and iodine are important for brain development and there are specific sensitive time periods when deficiencies may adversely affect

^c The Understanding Society Briefing Note does not indicate what is meant by ‘important matters’.

development. This section indicates some of the impacts of lockdown which may have implications for children's biological development. It also assesses the direct impact of COVID-19 infection on children's health.

In the early stages of Scotland's lockdown, many routine healthcare services were suspended to minimise the risk of COVID-19 transmission and so that NHS staff could be deployed to support caring for the expected influx of COVID-19 patients. It is possible that, as a result, opportunities to detect problems with children's health and development and to intervene early have been lost. Delayed actions to correct problems with vision or hearing for example, or to improve dental health, may mean that the ideal time period in which to improve outcomes has been missed. It is also likely that some children will have missed out on therapeutic support, such as speech therapy, to modify developmental delay.⁸ Section 3.3 below assesses the delivery of key preventive health services for children over this period.

Also, it is probable that the economic impacts of the public health control measures will mean that more young children will be living in households that are experiencing food insecurity and that available food may not be nutritionally optimal for healthy growth and development. Section 2.4 below describes in more detail the observed economic impacts on families.

The Covid-19 Early Years Resilience and Impact Survey (CEYRIS) of parents and carers of 2–7 year olds in Scotland found that for around 60%, children's sleep patterns were perceived by parents and carers to be much the same compared with pre-lockdown. For over 30%, however, sleep patterns were perceived to be either 'worse' (26%) or a lot worse (5%).⁹ In terms of physical activity, CEYRIS data suggest that just under one-half of the sample of 2–4 year olds had played actively inside, including P.E., dancing or games, either every day or on most days, and a further 42% had done this on at least some days. Just over 10%, however, hadn't engaged in active play at all over the previous seven days.¹⁰

In relation to the direct impact of COVID-19 infection on the health of children, between 1 March and 30 August 2020, a total of 44 children aged 2–4 years had tested positive for SARS-CoV-2. This represents 0.3% of the 13,807 individuals in

that age group tested, and a rate of 26 cases per 100,000 individuals of this age in the population. Across the whole population the cumulative rate was 375 cases per 100,000 individuals for this period, with diagnosed cases higher in older age groups. In the CEYRIS study, across the sample of parents of 2–4 year olds as a whole, around three quarters agreed or strongly agreed that they were confident that schools would do all they could to reduce the risk of infection. Just under half of parents were, however, concerned that their child might become ill with COVID-19 (44% agreed or strongly agreed), or that they might pass on COVID-19 to someone else (50% agreed or strongly agreed).¹¹ This suggests that parental anxiety about infection exceeds the observed likelihood of children of this age group becoming unwell.

2.4 Social circumstances

The circumstances that children grow up in are important for their development and wellbeing. For example, in the Millennium Cohort Study, children born into poverty have significant lower test scores at ages three, five and seven years compared to more affluent children.¹² The evidence suggests that continually living in poverty has a cumulative negative impact on a child's cognitive development, even after taking into account a wide range of background characteristics.¹³ Likewise, emerging evidence suggests that experiencing poverty at a young age can affect brain development specifically in the areas of the brain responsible for language, executive function and memory.¹² Data from 27–30 month child health reviews in Scotland show that children living in more deprived areas, and looked after children, are more likely to have a developmental concern documented.¹⁴

Parents' wellbeing is important for children's development and wellbeing.² Many parents have become financially insecure after being furloughed, made redundant or due to loss of business income. It is therefore likely that the numbers of children living in poverty will increase significantly in the coming months. Other parents will have been working at home while looking after young children. Lone parents are likely to be disproportionately affected by financial insecurity, lack of social support and restrictions on 'informal' childcare provided by friends and family. Mental health

difficulties may mean parents have fewer emotional resources available to support their children's development and wellbeing. For example, they may be less patient and tolerant of age-related misbehaviours.²

Just over 10% of parents and carers of children aged under 5 years responding to the Scottish Connect survey,¹⁵ and 11% of parents of 2–4 year olds participating in the CEYRIS study were furloughed as a result of COVID-19. In the CEYRIS study around a quarter of main earners in households with 2–4 year olds had changed employment. Among the sample, 8% had had their pay reduced, and 6% had had their hours reduced. Only 2% had been made redundant, and 1% had left their job due to childcare commitments. However, 40% of families had experienced a reduction in household income as a result of lockdown and the different social restrictions.

A Save the Children Scotland briefing paper, drawing on the experiences of a number of Scottish third sector organisations, reports that Aberlour has seen an overall increase in parental mental health concerns.¹⁶ Using the Shorter Warwick–Edinburgh Mental Well-Being Scale (SWEMWBS) to assess parental wellbeing, the CEYRIS survey, which ran from 22 June to 6 July 2020, found a median score of 19.98 for parents of children aged 2–7 years.¹¹ The WEMWBS scale runs from 14 (the lowest level of wellbeing) to 35 (the highest) but the average score for Scottish parents is usually around 26–27. The English Co-Spyce study found that the main sources of stress for parents related to work, children, future plans, chores and loss of support systems.¹⁷ This study found, for example, that nearly three-quarters of respondents (73%) were feeling that they were 'not', or were only a 'bit', able to meet the needs of their work and their child.

Lockdown measures included limiting people to all but essential travel. Having less transport on the roads is likely to have had a positive effect on the safety of local streets for vulnerable road users such as children and young people, especially in deprived areas. Local areas that are less dominated by traffic can improve health and reduce health inequalities.¹⁸ The CEYRIS study found that the majority of 2–4 year olds in the sample played outside either every day or on most days (84%) and

just under two-thirds (64%) walked, cycled or scooted in the local area most or every day.¹⁰

2.5 Learning opportunities

The home learning environment is an important influence on young children's language development, which in turn, is important for later literacy. The vast majority of words spoken by children before three years are derived from the vocabulary of their parents. Socio-economic gradients in the proportion of children experiencing language delay at five years have been reported in a number of studies. For example, in the Growing Up in Scotland (GUS) study, children in the most socio-economically deprived group were more than twice as likely to experience language delay compared to their most affluent peers. Likewise, children from low-income families were about 13 months behind in vocabulary skills and 10 months behind in problem-solving skills at school entry compared to their more affluent peers.²

Attending good quality formal early learning and childcare has been linked with improved school readiness, higher educational attainment and employment as well as lower delinquent and criminal behaviours. While good quality childcare can be beneficial for all children, those who have limited access to a rich home learning environment are likely to gain the most. Thus, early learning and childcare plays a role in mitigating the effects of living in poverty.¹⁹ In addition, having access to high-quality early learning and childcare can help reduce negative maternal emotions through the support derived from early-years workers and parent networks.²⁰

Through free play, children learn and develop skills and understanding about the world around them. Play is an activity which is best seen as 'freely chosen, personally directed and intrinsically motivated', or as 'what children and young people do when they follow their own ideas and interests in their own way and for their own reasons'.²¹ Play is a fundamental right of children and young people. It is essential for health as well as their social, emotional, cognitive and physical development. It is a natural tool for children to develop resilience as they learn to cooperate, overcome challenges, and negotiate with others.²⁰ Through social

interaction during play, children learn important skills such as turn-taking, sharing, co-operation and emotional self-regulation.²⁰ At times of crisis, play can help children cope with stress, anxiety and trauma, as well as being an important coping and distraction mechanism which helps maintain emotional wellbeing.²²

The public health measures put in place to control the transmission of COVID-19 have created a significant shift in where, when, how and with whom children can play.²² The closure of childcare facilities and 'stay at home' measures have meant that children's play, in the main, has been limited to the space and people available within their home. The closure of public playgrounds restricted opportunities for outdoor play for children without access to private outdoor space. Children living in low-income households may have been disproportionately affected, especially if they live in cramped housing with little space inside or outside the home to play safely.²³ In addition, parents may lack the financial or psychological resources to provide an enriched play environment.²³ Without the opportunities to play, children's social and emotional development may stall or regress.

The CEYRIS survey found that for 54% of 2–4 year olds 'imaginative' play was perceived by parents and carers to be actually better or much better compared with pre-lockdown.⁹ For the remainder it was much the same (36%), but for a small proportion (8%) it was worse or much worse. Focusing on use of outdoor spaces,¹⁰ the CEYRIS data suggest that, despite the constraints, the use of outdoor spaces was rated as better or much better for 46% of 2–4 year olds. It was, though, rated worse since lockdown for over one-quarter (27%) of the children. By way of context it should be noted that across the CEYRIS sample (covering children aged 2–7 years), 91% of children had access to private outside space, and 94% had access to good quality greenspace in the local area. This suggests a high level of access to good quality greenspace among CEYRIS respondents, compared with, for example, respondents to the 'Growing Up in Scotland' survey which found that, while 94% of children had access to a garden only 63% had access to greenspace in their local area.²⁴ Further analysis of the CEYRIS sample, however, reveals a clear differential based on household income.²⁵ Just over one-fifth of low-income families reported that they did not have access to a private or enclosed garden at home, compared

with just 5% of high income families. Just under 11% of low income households also reported that they did not have access to good quality greenspace, compared with just over 4% of high income households.

In terms of opportunities for contact with other children, parents responding to the Connect study worried that their children were missing their friends, with 76% of parents of children aged under 3 years and 77% of parents of children aged 3–5 years identifying this as a main area of concern.¹⁵ Data from the CEYRIS study indicate why this may be the case.¹⁰ Only 12% of 2–4 year olds had spoken to friends either every day or on most days over the previous seven days. Although a further 36% had spoken with friends on at least some days, 52% had had no contact with friends over the previous week. Young children had, however, had the opportunity to speak with members of their extended family.

The CEYRIS study also found that, since the beginning of lockdown, only a very small proportion of 2–4 year olds in the sample had attended a local authority hub, a childminder or outdoor childcare setting.¹⁰ Just over three quarters of parents felt their child was looking forward to returning to school,¹¹ while only 17% agreed or strongly agreed that their child was worried about returning to school or childcare.¹¹ This sits in contrast with the parents' worries about their child's return to nursery, as indicated by the Connect survey.¹⁵ This study found that among respondents, 56% of parents and carers of 0–3 year olds, and 54% of parents and carers of 3–5 year olds were worried about their child's return to nursery. Parents participating in the CEYRIS study also expressed concerns about the impact of their child returning to childcare or school, with 43% of parents of 2–4 year olds agreeing or strongly agreeing that they were concerned that the new childcare or school environment would not be good for their child's wellbeing.¹¹

2.6 Childhood experiences

Children's early childhood experiences can promote or adversely affect their development and wellbeing and can have a long-lasting impact.²⁶ For example, having a rich experience of different environments, such as libraries and museums, has been found to be important for language development.² In contrast, adverse

experiences such as exposure to domestic abuse can have a negative impact on children and young people's social, emotional and cognitive development. Some children are more resilient than others but all children will be affected in some way. Children with parents who have co-existing mental health or substance misuse issues, or children who experience abuse or neglect directly are more likely to be negatively affected.²⁷

Children's opportunities to experience environments and settings outside their home and immediate neighbourhood will have been restricted by the closure of public venues such as libraries and museums along with the limitations on non-essential travel. Without the safety net of attending early learning and childcare centres, contact with supportive adults living in a different household such as grandparents or face-to-face contact with health and/or social care professionals, it is possible that children's exposure to a range of adverse experiences within the home will be missed. Also, the transition from early learning and childcare to primary level schooling is an important step for young children²⁸ and, after nearly five months away from pre-school, it is likely that some children will find the transition to primary school more challenging than they might have done if they had experienced the usual transition processes.

A number of the studies flagged the different ways in which COVID-19 was impacting directly on children's orientation to the world around them.²⁹ One survey undertaken in the Republic of Ireland, for example, illustrated how COVID-19 was making its way into children's play:

- 'Doll has mask. Plays nurse or doctor to make dolls or pets better. Washing dolls hands.' (Age 4)
- 'She pretends that she's going to the park with her friends but that the playground is closed.' (Age 2)³⁰

This same study found a high level of awareness among even very young children of the 'restrictions'. The Scottish CEYRIS study also explored with parents their child's experience of physical distancing as Scotland was coming out of lockdown.¹⁰ The majority of parents of 2–4 year olds 'agreed' or 'strongly agreed' that they had found

keeping their child two meters apart from other households difficult or stressful. Around 50% of parents also suggested that their child had found keeping two meters apart from other households difficult or upsetting, or that they didn't understand or forgot. Parents were, however, divided over whether to physically distance their child when they met other households. In terms of the impacts on children's mental health and wellbeing, the English Co-Spyce study found that over 30% of parents reported that their child thought COVID-19 was very serious, with around 10% reporting that their child was worried about family and friends catching Covid-19.¹⁷ It was, however, 'rare' for the children to be worried about COVID or its associated consequences.

As part of the public health measures, the Scottish Government wrote to people who were thought to be at the highest clinical risk of severe illness from COVID-19 and asked them to 'shield'^d at home. Over the period 1–14 June 2020, Public Health Scotland undertook a survey of individuals who had received a letter advising them to follow shielding guidance. Although no age-specific data are reported, the findings suggest the impacts and experiences of shielding on respondents from households with children and on those caring for a child who was shielding. For example, fewer than two-thirds (64%) of respondents with children in their households felt they were coping with shielding (compared to 72% of respondents in households without children). More than 8 in 10 of both respondents with children in their households and those caring for a child who was shielding, reported that shielding was having a negative impact on their own mental health. Households with children were also more likely to struggle to access food to meet their needs than households without children – more than 8% compared to 5%. Among respondents caring for a shielding child this rose to 14%. Having children in a household, or caring for a shielding child, also made it more difficult to fully follow the shielding guidance.³⁰

^d 'Shielding' is designed to protect these individuals by minimising all interaction between them and others to prevent them from coming into contact with the virus.

2.7 Children's development and wellbeing

The impact on children's behaviour is one indicator of how COVID-19 may be affecting children's development and wellbeing. Based on parents' and carers' perceptions, the CEYRIS study found some worsening of behaviours among 2–4 year olds compared with pre-lockdown, including in relation to behaviour overall (50% worse or much worse), mood (42% worse or much worse), amount of physical activity (44% worse or much worse) and eating behaviours (35% worse or much worse).⁹ Some children had, however, benefitted from lockdown: physical activity, for example, was better or much better for just under one-quarter of the 2–4 year olds.

Using the Strengths and Difficulties Questionnaire (SDQ) to assess children's mental health and wellbeing, the CEYRIS study found that among 2–3 year olds, just over half (53%) scored close to the average on the total difficulties rating, with 19% slightly raised and 13% and 14% high and very high (respectively), indicating an increase in difficulties among this group of children.⁹ This compares to 66% of 3 year olds and 85% of 4–5 year olds who were close to average compared with a nationally representative study in 2019. Comparing the five domains that make up the SDQ, the percentage of children aged 2–3 years old scoring close to average for peer problems (67%), conduct problems (62%) and emotional problems (66%) domains was higher than that for the hyperactivity (55%) and prosocial domains (56%). Suggesting again that a substantial proportion of the sample of children were experiencing difficulties since lockdown.

3. Meeting the health and care needs of children, and parents and carers

3.1 Access to children's services

The CEYRIS study explored with parents whether or not they had used any of a range of children's resources including a health visitor or family nurse, GP, allied health professional (AHP), nursery staff or childminder, school staff, family support worker, social worker, or a voluntary or community organisation.¹¹ Although the majority of parents did not require the use of any of these services, among those

who did there was a mixed response in terms of whether they managed to access the service or not:

- 30% of parents and carers who had wanted to access health visiting services during lockdown had not been able to
- 13% of parents and carers who had wanted to access GP services during lockdown had not been able to
- 44% of parents and carers who had wanted to access AHP services during lockdown had not been able to
- 59% of parents and carers who had wanted to access nursery staff during lockdown had not been able to
- 18% of parents and carers who had wanted to access school staff during lockdown had not been able to
- 57% of parents and carers who had wanted to access family support workers during lockdown had not been able to
- 29% of parents and carers who had wanted to access social workers during lockdown had not been able to
- 49% of parents and carers who had wanted to access voluntary organisations during lockdown had not been able to.

The Connect study reveals three areas where parents would welcome resources to help them support their children:

- first, resources and support for parents to keep their child healthy and happy during the pandemic
- second, childcare if children are to return to school/nursery 'part time'
- third, supporting nursery or school readiness (i.e. parents of children aged under 3 year olds (40%) and parents of those aged 3–5 years (36%) felt that they did not have enough equipment, support, advice and information to do school work).¹⁵

The English Co-Spyce study found that for the majority of the small proportion (3%) of the sample who were receiving services pre-lockdown (e.g. mental health, educational and social service support), this had stopped or paused.¹⁷ Across the

sample as a whole, however, nearly 70% wanted at least some help with their child's response to COVID-19 and isolation and 21% would have liked a lot more help. The sort of help parents wanted was in relation to managing their child's emotions (62%), help with their child coming out of isolation (53%), managing their child's educational demands (53%) and managing their child's behaviours (53%). In terms of how they received this support, near three quarters of participants (72%) indicated a preference for online written materials. One-half expressed a preference for online videos.

3.2 Child development reviews

Detecting developmental problems early provides the best opportunity to support children and families to improve outcomes. There is good evidence that parenting support and enriched early learning opportunities can improve outcomes for children with, or at risk of, developmental delay.^{31 32} There is also increasing evidence that intensive early interventions for children with serious developmental problems can also improve outcomes.³³

All children in Scotland are offered the child health programme which includes a series of child health reviews. Health visitors usually provide reviews for preschool children, including an assessment of children's development at 27–30 months. These reviews involve asking parents about their child's progress, carefully observing the child, and supporting parents to complete a structured questionnaire about the child's development. At the end of the review health visitors record whether they have any concerns about each area of the child's development.³⁴

Assessing the proportion of children eligible for a review, who are documented as having received one, provides a means of tracking the delivery of this service. In 2019, 81% of children who were eligible for a 27–30 month review had been assessed by the time they were 31 months old. In January–April 2020 this proportion was 65–70%, with the highest coverage (70%) achieved in March.⁸ The lower levels of coverage seen in January and February suggest that this effect may not be due to COVID-19 service impacts alone.

The findings of child development reviews, as well as their delivery, have changed in the pandemic period. The proportion of children reviewed who have at least one developmental concern recorded at the 27–30 month review fell in March and April 2020 before returning to pre-pandemic levels by June 2020. In April 2020, 9% of children undergoing a 27–30 month review had a developmental concern identified compared to the pre-pandemic average of 16%. The recording of full, meaningful data for all areas of development was also lower in this period, with 73% of 27–30 month review records having full data recorded in April 2020, compared to 91% in the period June 2019 to February 2020.

These data suggest that service disruption due to COVID-19 affected the undertaking of reviews. This may be due to changes in whether and how services were delivered, and it may also be that some parents and carers deferred reviews due to reluctance to engage with health services during the pandemic. National guidance³⁵ issued at the start of the pandemic recommended that 27–30 month reviews should be conducted remotely (by phone or video consultation) where feasible. The lower data completeness on review records may therefore reflect difficulties in completing a full developmental assessment without face-to-face contact. In addition, some reviews were being undertaken when the child was older than 27–30 months and so it may have appeared they had less developmental concerns than would be expected for that age group.

In view of these factors, and the fact that changes in the actual occurrence of developmental concerns are unlikely to occur over such a short time period, the dip in March to May 2020 in the proportion of children identified as having a developmental concern is likely to reflect a fall in the detection, rather than the occurrence, of such issues – especially of age appropriate developmental concerns.

There is some evidence of ‘catch-up’ in coverage among children who became eligible for review in the early part of 2020. However, there remains a proportion of children who have not had a documented developmental assessment. The combined impact of fewer children having reviews, and a lower proportion of those reviewed having developmental concerns identified, means that across Scotland during the

period March to July 2020, around 800 children fewer were identified as having a developmental concern at 27–30 months, than would be expected based on pre-pandemic levels.

3.3 Services that protect and improve the health of children

3.3.1 Immunisation

The measles, mumps and rubella (MMR) vaccine is offered to children aged 3 years and 4 months. This is the second dose of MMR, with the first provided at 12–13 months of age. Uptake of the vaccine can be measured by early uptake (immunisation by 3 years and 5 months) and by immunisation by 3 years and 8 months. In 2019, early uptake was 52%, and was 50% in March 2020. Since then there has been a substantial and sustained rise in the proportion of children with early uptake, to around 70%. The proportion of children immunised by 3 years and 8 months was also higher in March (84%) and April (85%) 2020, than in 2019 (81%).⁸ This is likely to reflect both national communications efforts to encourage vaccine uptake, as well as local service approaches, which in some areas included contacting parents and carers by telephone to provide a reminder and address any anxieties.

It is not yet possible to say whether these improved figures represent more prompt immunisation of those children who would have been immunised anyway, or whether there will be an overall increase in uptake. However, they do reflect the efforts and support of health services, and parents and carers, to these key activities to protect the health of children. The data also show that increased early uptake has been achieved across all deprivation groups, indicating that the approaches taken may be beneficial in future efforts to reduce inequalities in immunisation.

3.3.2 Oral health and dental care

There was a substantial decrease in the number of children attending dental services in the period 1 March to 30 June 2020, compared with previous years, reflecting the restrictions that were introduced around dental care. Over the previous 4 years, an average of nearly 60,000 children aged 2–4 years had contact with NHS General

Dental Services (GDS) over the equivalent 4 month period, reflecting over one-third of the population of this age group. In 2020 there were only 8,193 children who had contact with NHS GDS in this period (5% of the population). There was a gradient in participation by deprivation, with 6% of children in the least deprived areas having had contact with dental services, compared with 4% in the most deprived areas.

This reduction in general contact with dental services is also reflected in the fall in the number of children receiving preventive interventions in dental practices over this period. In March to June 2020 only 3.1% of 2–4 year olds received a Childsmile intervention in primary care dental practices, compared with an average of 22% over the previous 4 years. Childsmile is a national programme to improve the oral health of children in Scotland and reduce inequalities in dental health and access to dental care.³⁶ In addition to the interventions delivered in dental practices (toothbrushing instruction, diet advice and fluoride varnishing) there are nursery, school and community components, such as supervised daily toothbrushing in nurseries. These are also likely to have been substantially affected by the service changes and restrictions during the pandemic.

3.3.3 Use of emergency health care during the pandemic

Calls to NHS24 for children aged 0–5 years fell from mid-March 2020, and reached their lowest level at the end of April 2020, when activity was 45% of that seen in the same week the previous year. Out-of-hours attendance also fell substantially to around 20% of the levels seen in 2019. Emergency department attendances and emergency hospital admissions both fell substantially compared with 2019 levels, reaching their lowest levels in April 2020. Ambulance attendances also fell, although this occurred slightly later, and followed an initial small rise in activity in late-March. In addition, levels of planned admissions to hospital fell to around 60% of those seen in the equivalent period in 2019. The proportional change in healthcare activity is comparable across deprivation quintiles for each of the healthcare categories. However, as Figure 3 demonstrates, due to differing health care use by deprivation in the baseline period, the proportionally equivalent fall represents very different absolute volumes of unmet need. That is, across each healthcare category, the

change in the absolute number of episodes compared with the previous year is greatest in those living in the most deprived areas.

Figure 3

The analysis of routine data largely supports the findings from the surveys of parents and carers on the need for, and use of, a range of services during lockdown. What is also clear from the routine data is that the closure, pausing and/or non-use of healthcare services and interventions disproportionately affects the most deprived families with young children.

4. What does this mean for services for this age group in the future

4.1 Overview of findings to date

The experience of children aged 2–4 years during the lockdown period March to July 2020, and possibly beyond, has not by and large been positive. Although certain aspects of children's lives stayed the same or even improved, many deteriorated and the relatively low percentage of children close to average on the SDQ measure demonstrate this. While some families spent more time with their children, and some

children had more opportunities for imaginative play or playing outside, this was not true for all children. Children of this age group were unable to meet and play with peers, learn crucial aspects of socialisation and may have picked up increased levels of anxiety that may have been present in the home.

Children's use of services also decreased during the lockdown period. In some cases this might be seen in a positive light if it meant children did not need them. However, apart, possibly, from use of A&E, there is no reason to think that children should have needed less input from services. The CEYRIS study shows how many parents wished to make use of services but were either unable to do so or thought the service was no longer running.¹¹ However, where especial efforts were made this paid off. And it is encouraging to see that the childhood immunisation programme continued to see a high uptake throughout the lockdown period.

4.2 Issues for consideration

The COVID-19 pandemic has provided an unprecedented challenge in Scotland and internationally and the measures put in place to suppress the virus have focused on protecting the health of the nation and saving lives. There have, however, been some unintended negative consequences which have affected children aged 2–4 years, and in ways which may increase existing inequalities. To support ongoing measures to protect the health and wellbeing of this group, and to guard against the impact of current or future lockdown measures on them, consideration should be given to the following:

- It is imperative that children's services remain operational, as much as is possible, during any return to lockdown. This includes prioritising face-to-face services such as health visiting and developmental reviews, and interventions such as dental health. There could be some learning for other services from the successes of the immunisation programmes during lockdown. It is also important to ensure that children who may already be at risk of disadvantage do not lose out further as a result of changes in service availability or means of delivery.

- Evidence from the CEYRIS survey,¹¹ particularly in relation to access to child health services such as AHPs, suggests that some groups of children, such as those with additional support needs or with a disability, may be disproportionately negatively affected by the infection control measures. These children need additional support put in place.
- Play is important for children's development and consideration should be given to keeping open parks and playgrounds designed for young children.
- Staff in early learning and childcare settings should be appropriately trained to deal with the impact of COVID-19 on children, including mental health and wellbeing and issues related to financial or food insecurity.
- Learning opportunities for children, and supporting parents to help them realise those opportunities, have been consistent themes. Accessible ways for parents and carers to obtain information on how to support their child's learning should be considered. This should include making available printed materials to mitigate the impacts of digital exclusion.
- As indicated in the CEYRIS study,¹¹ the mental wellbeing of parents and carers of children in this age group may also have been negatively affected by the pandemic. This may mean they have fewer emotional resources available to support their children's development and wellbeing. Specific support for parents of young children should be considered and where support was in place prior to lockdown this should continue.
- Due to the somewhat solitary nature of lockdown young children have had less opportunity to speak to or engage with trusted adults, such as nursery staff. This is also true when children are self-isolating. This may have meant issues such as domestic violence and the impact on the child have not been picked up.³⁷ Contact for children with adults outwith the home, either through (for example) childcare, nursery school, other professionals, or with trusted members of their wider family, is therefore essential.
- Many AHP services have been paused in schools and nurseries, including speech and language therapy. This, together with a ban on singing, may mean young children are not developing the communication skills as rapidly as would be expected.

- Going forward, the health and welfare of children in this age group needs to be monitored closely. The large decrease in SDQ scores, the lack of access to facilities at perhaps critical times and the stress felt by both parents and children during the pandemic are all factors which may have long-term implications for children's development.

Appendix 1: Methodology

Evidence about child development

This report reflects what is known from evidence reviews previously completed by NHS Health Scotland (now part of Public Health Scotland). Due to time constraints, it is not a rapid evidence review of the available information. NHS Health Scotland evidence briefings were produced by the organisation's Evidence for Action (EfA) team. EfA briefings use systematic methods to review the most appropriate evidence to provide a robust, quality assured and balanced assessment of interventions and approaches likely to be effective in improving health and reducing health inequalities.

Analyses of primary research

The focus of this component is to identify, from recent or current primary research (surveys and qualitative studies), the impacts of COVID-19 and associated infection control measures on children's health, wellbeing and development, drawing on the experiences and perceptions of parents and carers, and children and young people.

Inclusion criteria

The primary focus has been on surveys and studies undertaken in Scotland, or with identifiable Scottish samples. However, to maximise the learning, studies undertaken elsewhere in the UK or Great Britain (GB) have also been included, where relevant, together with some international studies.

Studies have been identified through research funders, internet searches, known contacts working in relevant fields and summaries of current research such as the Public Health England COVID-19 Literature Digests.

The analyses therefore include:

- Scotland-specific studies
- GB and/or UK-wide studies which include a sample of people from Scotland, and which provide a country-by-country analysis

- Relevant studies undertaken across or within the UK or GB, which do not include a Scottish sample, or which do not provide a country-specific analysis
- Examples of relevant international studies
- Studies commenced in or after March 2020 (i.e. at the start of lockdown in the UK)

The studies include:

- Those undertaken by, or with, academics, third sector organisations, statutory sector bodies (e.g. children's commissioners), or community groups or networks
- Those using quantitative and/or qualitative methods e.g. surveys, telephone interviews, visual methods (e.g. where pictures have been used to help children/young people to express their views)
- Those comprising data collected from any/all of the following:
 - Children and young people about their perceptions and experiences of the impacts of COVID-19, infection transmission control measures and recovery on children and young people
 - Parents, carers and professionals about the perceived impacts of COVID-19, infection transmission control measures and recovery on children and young people
 - Parents and carers about the perceived impacts of COVID-19, infection transmission control measures and recovery on their capacity to look after and support children and young people (including, for example, balancing home working, and home schooling and play)
 - Practitioners, professionals, organisations providing a service for children and young people on their perceptions of the impacts of COVID-19, infection transmission control measures and recovery on their capacity to support children and young people.

Data extracted from the different studies were coded to reflect the development issues identified through the review level work in relation to each 'age and stage'.

Limitations

There are a number of limitations that may limit the comprehensiveness, generalisability and comparability of the studies included:

- Although drawing on studies undertaken beyond Scotland, it is not intended to be a comprehensive analysis of all surveys and primary research being undertaken on the impacts of COVID-19 on children and young people.
- Although focusing on studies undertaken from March 2020, data collection periods may vary between the different studies, for example surveys run over a number of weeks in April or May 2020. This is particularly relevant for comparison with those studies which are GB or UK-wide or international, where the phases of introducing and coming out of lockdown may be different (for example in relation to returning to school). This, together with the differences in policy contexts, and the mitigations put in place in response to the infection control measures (e.g. in relation to financial support or tenancy protection), may have implications for study participants' views and experiences.
- The methods used to sample, recruit and administer surveys, such as those drawing on the responses of self-selecting populations recruited through social media, or organisational networks, may limit the generalisability of some of the findings. In particular, it may mean that the views and experiences of some groups of children and young people are at risk of being excluded or under-represented, e.g. those from black and minority ethnic communities, or from deprived populations. The studies do, however, indicate the issues of importance to participants, drawing attention to the nature of the impacts of COVID-19 on children and young people. Even if not directly addressed they also help to generate significant questions about the potentially (unequal) distribution of these impacts.

Different studies use different age groupings (covering broader or narrower age bands). For the purposes of the analyses the age ranges have been used flexibly,

recognising that some of the studies use broader age ranges and some narrower than the particular developmental stage of interest.

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