

Scottish Study of Early Learning and Childcare: Phase 4 Report



CHILDREN, EDUCATION AND SKILLS

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Acknowledgements

We would like to thank all the parents, carers and early learning and childcare staff who gave up their time to participate in the surveys and observations, as well as the Care Inspectorate staff who carried out the observations of settings.

Executive Summary

Background

From August 2021 the entitlement to funded early learning and childcare (ELC) in Scotland increased from 600 to 1140 hours per year for all three- and four-year-olds and for eligible two-year-olds. This means families can access up to 30 hours of funded ELC per week per child in term time, or around 22 hours spread across the calendar year. This report outlines findings from the surveys conducted as part of the fourth phase of the Scottish Study of Early Learning and Childcare (SSEL), focusing on two-year-olds who are accessing funded ELC.

In October 2022, alongside the [Strategic Childcare Plan 2022 to 2026](#), Scottish Government published an [Evaluation Strategy](#). This set out plans to evaluate the impact of the expansion of funded ELC to 1140 hours on outcomes for children, parents and carers (referred to throughout this report as 'parents' for brevity), and families. Three high-level outcomes for the expansion were highlighted:

1. Children's development improves and the poverty-related outcomes gap narrows
2. Family wellbeing improves
3. Parents' opportunities to take up or sustain work, study or training increase

The SSEL has been designed to provide key evidence on whether the ELC expansion has achieved these aims by measuring outcomes for children and parents who received the 600 hour entitlement (Phases 1 to 3) and comparing them with those who received the increased 1140 hour entitlement (Phases 4 to 6). Phase 4 data also provide robust standalone evidence, representative of the experience of funded ELC for two-year-olds in need in 2023 across Scotland.

Methods

The SSEL methodology comprises three linked components at each phase:

1. an assessment of children's development outcomes by ELC keyworkers
2. a survey of parents of the sampled children
3. observations by Care Inspectorate staff of the quality of experience within ELC settings attended by sampled children.

A survey of managers or heads of sampled ELC settings was introduced at Phase 4, which will be continued through the subsequent post-expansion phases.

The sample consisted of children aged between two years and two years six months who were receiving up to 1140 hours of funded ELC, and the parents of those children. Participants were recruited via local authority, private and voluntary sector group ELC settings (childminders were not included) in 31 local authority areas. Fieldwork was conducted between October and December 2023.

Most parent respondents were female (91%). More than half (58%) were living in single parent households. Household incomes tended to be well below average, reflecting the eligibility criteria for access to ELC when a child is aged two.

Children involved at Phase 4 of the study will be followed up at Phase 6, in the last quarter of 2024. This longitudinal element will provide evidence on the impact of one year of ELC on those children who need it most.

Key Findings

Use of ELC

The full costs of ELC at the setting were funded for 89% of children. Around a third of children attended the setting for fewer than 22 hours a week, and hence did not use their full entitlement of funded hours.

One in five (18%) children received childcare from a provider other than the participating ELC setting (formal or informal). Where additional childcare was used, this was most commonly provided by the child's grandparents, in 13% of families. Only 3% of children received formal ELC from another provider.

Most parents engaged with the ELC setting to some extent, with 88% having discussed their child's progress with staff. Two in five (38%) had talked to someone about how to support their child's learning at home, and the same proportion had received advice or information to support their child's speech, language and communication development.

Parents saw a lot of advantages in having a child aged two in ELC, including being good for them to interact with other children (95%), good for their independence / confidence (92%), because they enjoy it (87%), and because it enables parents to work, study or train (76%).

Child health and development

Most of the eligible two-year-olds were described by their parent as in good or very good health. Around one in ten (11%) had a long-term physical or mental condition or illness that limited their day-to-day activities.

Three-quarters (74%) of parents reported having no worries about how their child talks and 81% reported having no concerns about what their child understands. Concerns were more prevalent for boys than for girls and in more deprived areas. One in six (15%) received some level of support from the ELC provider specifically for speech and language development.

Children's keyworkers at ELC settings were asked to complete observations of the child's development using the Ages and Stages Questionnaire. Girls were more likely than boys to be assessed as "on schedule" in their development across four of the five domains, the exception being the gross motor skills domain. Half (48%) of girls were on schedule for the communication domain, compared with a third (33%) of boys. The gap was widest for the personal-social domain, with 53% of girls on schedule, compared with 28% of boys.

For the communication and the problem-solving domains, children living in the most deprived areas were less likely to be on schedule. A third (34%) of those in the most deprived areas were on schedule on the communication domain, compared with 44% of those in other areas. For the problem-solving domain, 29% were on

schedule in the most deprived areas and 38% in other areas. Boys living in deprived areas were particularly at risk of not being on schedule, with pronounced differences in the communication, fine motor skills and personal-social domains.

Children's keyworkers also completed observations of the child's development using the Strengths and Difficulties Questionnaire. With the exception of emotional symptoms, across all the domains girls tended to have fewer difficulties than boys. The gap between scores for boys and girls was largest for the hyperactivity domain (54% of girls close to average compared with 32% of boys) and the prosocial behaviour domain (52% of girls and 33% of boys close to average). On the "total difficulties" score, 49% of girls were close to average compared with 29% of boys. There were also some differences by area deprivation, with boys living in the most deprived areas least likely to be close to average.

Parent work, education and training

Around two in five survey respondents (mostly women) were in employment, with the majority of these working fewer than 30 hours a week (31%), and only 9% working full-time. A third (35%) of single parents were in employment, compared with 46% of respondents from two-parent households. Partners (mostly men) were much more likely to be in full-time employment (51%), with a further 13% in part-time employment.

Those living in deprived areas were less likely to be in work or study: 51% of two-parent households with an eligible two-year-old living in the most deprived areas had at least one parent in employment, training or full-time education, compared with 81% in other areas. Differences for single parents were less stark (39% in the most deprived areas and 50% in other areas).

Fifteen percent of respondents reported they had entered or re-entered employment as a result of their child starting funded ELC (generally within the previous six months). In addition, 15% said they had started looking for work or a change in job, and 11% had entered or re-entered education or training.

Respondents had been able to do a number of other things beyond working or looking for work because their child is in ELC. Four in five respondents (81%) agreed they had been able to think about what they may do in the future. The majority also agreed they were feeling less stressed (68%). A third (35%) had been able to study or improve work-related skills.

Parental and family wellbeing

Three in five parent respondents (62%) said their health was good or very good. This proportion was lower in deprived areas (53%, compared with 67% in other areas). Two in five respondents (40%) reported having a long-term health condition. The large majority (79%) of these said the condition affected their mental health.

Slightly under a quarter (23%) of parents were recorded as having "low wellbeing", using the short form of the Warwick-Edinburgh Mental Wellbeing Scale. Mental wellbeing was higher among respondents living in two-parent households than single-parent households.

Nearly half (46%) of respondents reported that their child looked at books or stories every day at home, with no difference between boys and girls (47% and 45% respectively). Other home learning activities were more common for girls than boys, including painting or drawing (26% of girls did this every day, compared with 13% of boys) and reciting nursery rhymes or singing songs (69% of girls did this with someone at home every day, compared with 58% of boys).

Views of setting managers

Most settings offered support for parents on parenting concerns and to help with their child's learning and communication skills. Some settings were also able to offer other forms of support, such as provision of clothing for children or opportunities for parents to learn or improve skills.

Over half (56%) of setting managers agreed that the expansion of funded ELC had helped them to provide a broader range of support for families. Forty-five percent of setting managers agreed that the expansion had led them to work more closely with families for whom they provide support. Forty-seven percent agreed that it had led them to spend more time providing support to families.

Setting managers were asked what their setting had done in order to meet the requirements of the ELC expansion. The most common activities chosen related to staffing, with almost three-quarters (72%) saying they had taken on extra staff and over half (51%) providing additional training to staff. Some settings said they had increased fees for unfunded children (29%) or cut expenditure, for example on play materials (21%). Setting managers were then asked to select up to three main challenges that they had faced in meeting the requirements of the expansion. The most commonly mentioned were recruiting staff (59%) and accommodating children with additional support needs (53%).

Characteristics of ELC

Reviewers from the Care Inspectorate conducted observations of 149 settings using the Infant/Toddler Environment Rating Scale (ITERS-3). The ITERS tool was used to provide a snapshot of the experiences of children in their ELC settings. ITERS-3 has 6 different subscales: space and furnishings; personal care routines; language and books; activities; interaction and program structure. Settings were scored from 1 to 7 on each: 1 (inadequate), 3 (minimal), 5 (good), and 7 (excellent).

Settings scored highest on the Interaction subscale, with 78% of settings scoring 5 or above. Settings also scored high on the Programme Structure (74% scoring 5 or above), the Space and Furnishings (72%) and the Personal Care Routines (64%) subscales. On the Language and Books subscale 54% of settings scored 5 or above. The Activities subscale stands out as an area where many settings were performing less well, with only 11% of settings scoring 5 or above.

It is important to note that the ITERS tool is not the only method of assessing setting quality in Scotland. Indeed, Care Inspectorate ratings provide a broader measure of the quality of practice and policy within settings that have also been found to be related to children's outcomes in Scotland.

1. Introduction

1.1 Background

This report outlines findings from the surveys conducted as part of the fourth phase of the Scottish Study of Early Learning and Childcare (SSELC). Together, the SSELC surveys form a major part of the strategy for the evaluation of the expansion of funded early learning and childcare (ELC) in Scotland. Details of the [Evaluation Strategy](#) were published by the Scottish Government in October 2022. This set out plans to evaluate the impact of the expansion of funded ELC from 600 to 1140 hours (referred to as “the expansion of funded ELC”) on outcomes for children, parents and carers,¹ and families.

The ELC Expansion Programme

From August 2021 the entitlement to funded ELC in Scotland increased from 600 to 1140 hours per year for all three- and four-year-olds, and eligible two-year-olds. This means families can access up to 30 hours of funded ELC per week per child in term time, or around 22 hours spread across the calendar year. This increase follows a number of smaller expansions since the introduction of funded ELC in 2002. Two-year-olds are currently eligible for funded ELC if they are care experienced or have a parent who is, or if a parent is in receipt of one or more qualifying benefits. Local authorities can also provide discretionary access to funded ELC to any other child, as they see fit.²

The [Strategic Childcare Plan for 2022-2026](#) was also published in October 2022. This set out Scottish Government’s vision for ELC and school age childcare, including planned actions to realise the benefits of the expansion to 1140 hours of funded ELC. It highlights three expected outcomes for the way in which ELC policy is expected to make a difference for children and families in Scotland.

1. Children’s development improves and the poverty-related outcomes gap narrows
2. Family wellbeing improves
3. Parents’ and carers’ opportunities to take up or sustain work, study or training increase

The Scottish Study of Early Learning and Childcare

The SSELC has been designed to provide key evidence on whether the ELC expansion has achieved the above objectives. It does this by measuring outcomes for children and parents receiving the current entitlement of 1140 hours and comparing them to those who received the previous entitlement of 600 hours. The [Evaluability Assessment](#) and [Evaluation Strategy for the expansion of funded ELC](#)

¹ Throughout this report the term “parents” should be understood to refer to carers also.

² More information on the eligibility criteria for funding is available at: [Funded early learning and childcare - mygov.scot](#)

provide details of how SSELc findings will be considered alongside other sources of information to assess the contribution and effectiveness of the ELC expansion in relation to the above aims.

Aims of the SSELc

Specifically, the aims of the SSELc are to assess the extent to which the expansion from 600 hours to 1140 hours has:

- improved outcomes for children between the ages of two and five, particularly those at risk of disadvantage.
- closed the gap in child development outcomes between children who are most and least disadvantaged between the ages of two and five.
- improved outcomes for parents, particularly parents of children at risk of disadvantage.
- increased family wellbeing, particularly for families in disadvantaged circumstances.³

Phases of data collection

The SSELc is collecting data across six phases from 2018 to 2024. During 2018-19, phases 1 to 3 collected **baseline data** on the outcomes of samples of children and their parents accessing **600 hours** of funded ELC. During 2023-24, phases 4 to 6 of the SSELc are collecting “**post-expansion**” **data** on the outcomes of samples of children and their parents accessing **1140 hours** of funded ELC.

600 hours	‘Eligible Twos’, Phase 1 – November 2018	<ul style="list-style-type: none">• Baseline data collected on eligible two-year-olds as they began ELC
	‘ELC Leavers’, Phase 2 – May/June 2019	<ul style="list-style-type: none">• Baseline data collected on four- and five-year-olds as they leave ELC to begin primary 1
	Three-year-olds, Phase 3 – November 2019	<ul style="list-style-type: none">• Follow-up with the same group of eligible two-year-olds after one year in ELC (Phase 1)• Baseline data collected on three-year-olds as they begin ELC
1140 hours	‘Eligible Twos’, Phase 4 – November 2023	<ul style="list-style-type: none">• Data collected on eligible two-year-olds as they begin ELC
	‘ELC Leavers’, Phase 5 – May/June 2024	<ul style="list-style-type: none">• Data collected on four- and five-year-olds as they leave ELC to begin primary 1
	Three-year-olds, Phase 6 – November 2024	<ul style="list-style-type: none">• Follow-up with the same group of eligible two-year-olds after one year in ELC (Phase 4)• Data collected on three-year-olds as they begin ELC

³ Broadly, family wellbeing in the context of ELC is considered to be a combination of children and parents’ health and wellbeing, and the ability of parents to undertake suitable parenting and activities that may contribute to the long-term prosperity of the family unit.

The SSELC methodology comprises three linked components at each phase:

1. an assessment of children’s development by ELC keyworkers
2. a survey of parents of sampled children
3. observations by Care Inspectorate staff of the quality of experience within ELC settings attended by sampled children.

A fourth component – a survey of heads or managers of settings attended by sampled children – was introduced in this phase (Phase 4), and will be continued through the subsequent post-expansion phases. This survey is to gather information about their experiences of the impact of the expansion, and was therefore not relevant at the earlier phases.

The SSELC is both a longitudinal and cross-sectional study. In the longitudinal element of the study, data were collected at Phase 1 on a cohort of two-year-olds (and their parents) who were eligible for funded ELC when they began accessing their funded entitlement. The same children were followed up at Phase 3 after they had received one year of ELC. Post-expansion, data were collected at Phase 4 on a new cohort of two-year-olds eligible for funded ELC. These children will also be followed up after one year, at Phase 6. This longitudinal element will provide evidence on the impact of one year of ELC on those children who need it most.

The cross-sectional element of the study will compare the outcomes of groups of children and their parents accessing 600 hours of funded ELC in 2018/2019, with those accessing 1140 hours in 2023/2024. This includes those two-year-olds included in phases 1 and 4, as well as further samples of three-, four- and five-year-olds collected in other phases.

Following each phase of baseline data collection, a report was published. [The first three reports are available on the Scottish Government website.](#)

Overview of Phase 4

The focus of Phase 4, being reported here, was children aged between two years and two years six months who were receiving 1140 hours of ELC provision (the “Eligible 2s”). To be eligible for funded provision of ELC at age two, children must be care experienced or have a parent who is, or be in a household in receipt of certain state benefits.⁴ Local authorities can also use their discretion to offer funded places for two-year-olds who do not meet the Scottish Government eligibility criteria. The eligibility criteria mean that most of the children included in the research were from lower income households. Those children included in the research who were not living in lower income households would be receiving funded ELC either because they are looked after or in care, or through local councils using their discretion.

⁴ [Funded early learning and childcare - mygov.scot](https://mygov.scot)

The aims of Phase 4 of the SSELc were:

- To gather robust, nationally representative data on **child outcomes** for a sample of eligible two-year-olds who were receiving 1140 hours of funded ELC provision.
- To gather robust, nationally representative data on **parent outcomes** linked to the above sample of eligible two-year-olds.
- To gather data on the **quality** of a sample of ELC settings linked to the above sample of eligible two-year-olds.
- To gather data on support provided by settings to families of eligible two-year-olds and on the challenges faced by settings as a result of the expansion.
- To ensure the comparability of these data with data collected at Phase 1 for a cohort of eligible two-year-olds who were receiving 600 hours of funded ELC provision (in areas which participated at Phase 1).

The results from Phase 4 are the first to be published for children receiving the post-expansion entitlement of 1140 hours. They provide robust standalone evidence, representative of the experience of funded ELC for two-year-olds in need across Scotland. They will also contribute to the overall evaluation of the impact of expanded ELC provision, and form a baseline for children who will be followed up at Phase 6 of the study. This report's focus is mainly descriptive, providing a general summary of findings from the data collected and identifying some basic relationships between variables.

The data used in this report cover a wide range of parental and child outcomes, as well as information about settings. The specific outcomes of interest were:

Child

- Social, emotional and behavioural development
- Cognitive and language development
- Physical and mental health and wellbeing
- Home learning activities

Parent and family

- Employment, training or study
- Physical and mental health and wellbeing
- Parental confidence and home environment
- Parental engagement in their child's learning and development

This report is an integral component of the overall evaluation of the ELC expansion programme in Scotland. In combination with results from other reports in the series, these figures will be vital for determining whether this significant policy programme has delivered its intended outcomes. A future report will pull together the findings from all six phases.

1.2 Methods

Sampling

The sample consisted of children aged between two years and two years six months who were receiving up to 1140 hours of government-funded or local-authority-funded ELC provision, and the parents of those children. The ages of the children involved matched the ages of the children who participated at Phase 1. Participants were recruited via ELC settings in 31 local authority areas. All group settings⁵ providing funded ELC for two-year-olds – including local authority, private and third sector settings – were eligible for inclusion in the sample.

A two-stage, “cluster” sampling approach was taken in order to identify the sample. The first stage involved the random selection of settings, and the second stage involved the random selection of children within settings. Up to 10 children were selected within each sampled setting. More details of the sampling process are provided in Appendix B.

Data collection

Data were gathered on children in the sample via two methods: a survey of parents/carers and a survey of the children’s ELC keyworkers (primarily to measure child development). Data about the settings in the sample were also collected, including observations carried out by Care Inspectorate inspectors⁶ and a survey of setting heads.

Parents of selected children were contacted by ELC staff and provided with information about the study. They were then asked to complete a paper questionnaire⁷ that collected a wide range of information about themselves, their child and their household. Parents were also asked for their permission for the child’s keyworker to complete a questionnaire about their child. This largely consisted of the Ages and Stages (ASQ) and Strengths and Difficulties (SDQ)⁸ questionnaires, but also collected administrative information, including the number of hours the child attended the ELC setting in the previous week.

Fieldwork was conducted between October and December 2023. Questionnaires were sent to 305 settings⁹.

- At least one questionnaire was returned for 509 children in 152 settings (75% of which were local authority settings, 17% private and 8% voluntary), including 495 keyworker questionnaires and 341 parent questionnaires; 327 children had both questionnaires completed. Data for nine unpaired

⁵ Childminders were not included in the sample.

⁶ Note that inspectors were acting as observers and not in their regulatory capacity. They used a different tool in their observations than would be used for a formal quality grading.

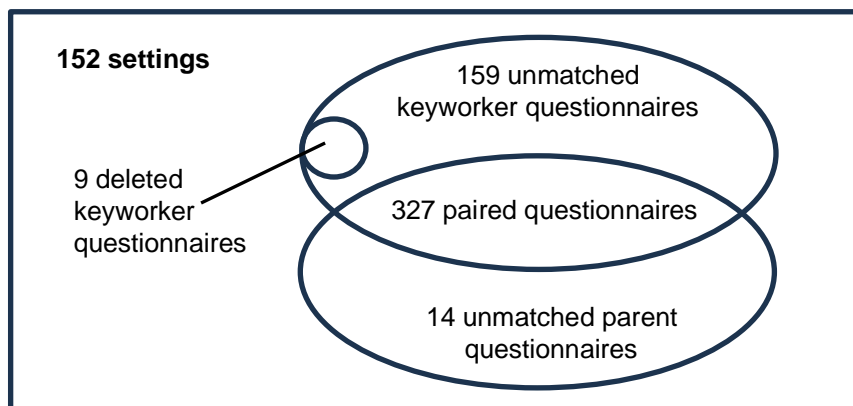
⁷ Questionnaires were available in Polish, Urdu, Punjabi and Arabic, as well as English.

⁸ Further information on these instruments is provided in Appendix C.

⁹ The sample included 315 settings, 14 of which withdrew before fieldwork began. Four of these were replaced to ensure reasonable coverage across all participating local authority areas.

keyworker questionnaires were removed as it was not clear from the information provided by the settings that the parents were aware that the observations were taking place.

- Estimated response rates were 29% for the parent questionnaire, 41% for the keyworker questionnaire and 27% for both.¹⁰
- Setting observations were conducted in 149 settings.¹¹
- The setting heads' questionnaire was completed by 157 setting heads.¹²



Nearly all the parent questionnaires (91%) were completed by the child's mother or a female carer within the household. Therefore where the terms "respondent" or "parent" are used throughout this report, they refer mostly to a mother or main female carer.

Data analysis, statistical significance and reporting conventions

Data analysis has been conducted using SPSS version 29. All analysis uses weighted data for Phase 4, except where discussing the characteristics of the cohort or the characteristics of the settings. Data is weighted so that the achieved sample better represents the population it was drawn from. Different weights were applied, depending on the variables included in the analysis (see Appendix B for more details on weighting).

Percentages are reported to the nearest whole number. However, as this is a sample survey, these figures are an estimate of the true figures within the population, and so should not be interpreted as being totally precise. A test for statistical significance allows us to tell whether two percentages we wish to compare are actually different in the population, given the amount of uncertainty we

¹⁰ Response rates for the questionnaires are not easy to calculate because of incomplete information on the sampling frame (see Appendix B for more details). Figures shown are a best estimate given the information available.

¹¹ A subsample of 150 settings was drawn for invitation to participate in the setting observations. Settings which were unable to participate in these observations were replaced with alternative settings from the main sample.

¹² All settings in the original sample of 315, plus the four replacements, were eligible to complete the setting heads' questionnaire, even if they did not have any eligible two-year-olds at the time.

are prepared to accept in our sample. All comparisons reported in the text have been tested for statistical significance through the use of logistic regression, although levels of statistical significance are not reported. Where a difference between subgroups at Phase 4 is noted in the text, this difference is statistically significant at the 5% level.¹³ Differences which are not statistically significant are generally not reported in the text unless it is considered noteworthy that no difference can be identified in the data between the groups of concern.

In the tables, a dash (-) signifies no cases fall into the particular category, whereas a zero (0) signifies at least one case falls into that category, but less than 0.5% of all cases. Base descriptions refer to the group who were eligible for inclusion in the table. Missing data are excluded from all figures, including the base.

Supplementary tables

All figures mentioned in the text of this report can be found in a set of Excel tables in the [Supporting documents](#). These also contain some additional data from Phase 4 of the SSELC not discussed in this report. Comments with regard to the data analysis above and the potential limitations below are applicable to these tables.

1.3 Potential limitations

Impact of Covid-19 and the cost of living crisis

The Covid-19 pandemic had a profound impact on the lives of families in Scotland. While the long-term impacts of the pandemic on families and the economy are still not known, the growing evidence from a range of research studies suggests many young children and their families have been negatively affected, especially those who were already disadvantaged.¹⁴ For some families, the pandemic had an impact on parental employment and household income. Increases in stress and reductions in parental wellbeing have been found, especially for mothers. For example, the Scottish Health Survey 2022 has shown that levels of wellbeing in the population have not bounced back to pre-pandemic levels.¹⁵

The direct impact of the pandemic on children involved in this phase of the study should be fairly limited. The children were born between May and November 2021, after the main lockdowns. However, their parents may have experienced some restrictions in their first year in terms of maternity/post-partum care and in accessing parent support groups. The cost of living crisis which emerged in the aftermath of the pandemic is also likely to have affected many of the families.

¹³ A statistically significant finding is one that would be very unlikely to be observed in a sample of data simply by chance if there is no real underlying change or difference in the wider population. The magnitude of the difference is only an estimate, but is very likely to be greater than zero.

¹⁴ See, for example: [Coronavirus \(COVID-19\): impact on children, young people and families - evidence summary October 2020 - gov.scot \(www.gov.scot\)](#); or [Covid-19: impact on child poverty and on young people's education, health and wellbeing - House of Lords Library \(parliament.uk\)](#)

¹⁵ [Scottish Health Survey - gov.scot \(www.gov.scot\)](#)

This report does not attempt to untangle the impact of Covid and the cost of living crisis from that of the expansion of funded ELC in Scotland. Instead, the data will form a baseline, so that when children are followed up at age three (Phase 6) the change in outcomes following a year of funded ELC will contribute to the overall evaluation of the expansion.

Sample sizes

Response rates at Phase 4 were lower than predicted. Sample sizes have therefore been increased for Phases 5 and 6 of the study. The achieved sample for Phase 4 is lower than planned, hence the analysis is less likely to find statistically significant results. However, it remains sufficiently large to identify differences in outcomes between key subgroups, such as boys and girls, and those living in deprived areas compared with those living in other areas.

2. Child, parent and household characteristics

This chapter examines the key characteristics of the sample gathered at Phase 4 of the SSELC. At the time of data collection, these eligible two-year-olds would have been receiving funded ELC for a maximum of six months.

The figures presented in this section are unweighted and are intended to describe the sample only, rather than the population as a whole. For some measures, the same data was collected from both the parent and the child’s keyworker. Where that is the case, figures from each respondent type are reported.

2.1 Characteristics of the Phase 4 sample

The vast majority of parent respondents were female (91%). The mean age of respondents to the parent questionnaire was 31. Three-quarters (73%) were aged between 25 and 39, with 16% aged under 25. Parent responses indicated that participant children were more likely to be girls than boys (54% female, 46% male).

Table 2.1 provides a summary of household composition at Phase 4. Around half (49%) of the children in the household lived with just one adult, while a higher proportion (58%) lived with just one parent or parent figure. More than a third (37%) had no siblings in the household.

Table 2.1 Household composition

Number of adults in the household	%	Number of parent figures ^a in household	%	Number of children in the household	%
One	49	One	58	One	37
Two	44	Two	42	Two	34
Three or more	7			Three or more	29
Unweighted base	328		325		328

Base: All respondents (parent questionnaire, Phase 4, unweighted)

^a Parent figures includes the child’s mother, father or main carer, and their partner if they live within the household. This is used to define single-parent households as referred to within the report.

Eighty-one percent of respondents to the parent survey indicated that they were the child’s main carer, with 17% reporting that the caring was shared equally with someone else in the household. Two percent reported that caring was shared equally with someone outside the household and the remaining 1% reported that they were not the main carer.

Table 2.2 shows that approximately half (49%) of respondents to the parent survey were in households within the lowest 10% (decile) of equivalised household

incomes (across the whole population). At Phase 4 this equated to having an annual equivalised household income of less than £13,500¹⁶.

Table 2.2 Equivalised annual household income deciles

Decile	Income range ^a	%
1 st	< £13,500	49
2 nd	£13,500 to < £17,600	18
3 rd	£17,600 to < £22,200	10
4 th	£22,200 to < £27,600	7
5 th	£27,600 to < £32,800	4
6 th	£32,800 to < £39,100	4
7 th	£39,100 to < £48,000	2
8 th	£48,000 to < £59,300	2
9 th	£59,300 to < £78,500	2
10 th	£78,500 +	1
Unweighted base		281

Base: All respondents (parent questionnaire, Phase 4, unweighted)

^a The range shown is for a two adult household. For one adult and one child under 14 it will be smaller. For three or more people it will be higher – see footnote¹⁶.

The disproportionate representation of lower income households in this sample reflects the eligibility criteria for access to ELC when a child is aged two, as these households are more likely to include a parent who is in receipt of qualifying benefits.

The disproportionate representation of more economically disadvantaged families is also reflected in the deprivation levels of the areas where respondents lived (Table 2.3). Four in ten (41%) respondents lived in areas among the 20% most deprived in Scotland.

¹⁶ Equivalised household income adjusts household income according to the typical income requirements for the number of people in the household. The modified OECD adjustment has been used in this case, whereby household income is divided by a household size factor, which is the sum of 0.67 for the first adult in the household, 0.33 for each subsequent adult or child aged 14 or above, and 0.20 for each child aged 13 or below. Cut points for the equivalised income deciles have been taken from a national survey of people in households in Scotland, the Scottish Health Survey 2022. The lowest equivalised income decile includes, for example, families of one adult and one child under 14 with an income of below £11,745, and families of two adults and two children under 14 with an income of below £18,900 per year. Note that wage inflation between 2022 and 2023 means that the true figure for the proportion of the sample in the lowest equivalised income decile is probably higher than the 49% reported here.

Table 2.3 Area deprivation quintiles (SIMD)

Quintile	Keyworker report	Parent report
	%	%
1 st (Most deprived)	41	41
2 nd	28	29
3 rd	13	13
4 th	12	13
5 th (Least deprived)	5	4
Unweighted base	462	330

Base: All respondents (keyworker and parent questionnaires, Phase 4, unweighted)

Most respondents (92%) were White, with 85% identifying themselves as White Scottish. Eight percent were from a non-White background, similar to the Census 2022 estimate of 7% for the Scottish population generally.

The majority of parents only spoke English at home (87%) whilst 12% spoke English and another language and only 1% spoke only another language at home.

3. Use of ELC

Information about ELC received from the primary setting was collected in both the keyworker and parent questionnaires. This included the number of hours the child attended the setting, and how many hours were paid for / how many were funded. Data from both sources are presented here.

Parents were also asked about their use of additional childcare, whether that be other formal ELC (such as private nurseries) or informal childcare from family, friends or babysitters. Findings from these questions are also presented here, along with data on the types of childcare used before the participating child was aged two, activities they, as parents, had done at the funded ELC setting, how accessible the setting was for them, and what they thought the main advantages/disadvantages were to having a child in ELC. All figures in this chapter have been weighted.

3.1 Formal ELC provision

Data from the keyworker questionnaire show that the mean total number of weekly hours spent at the participating setting by “Eligible 2s” was 23.3.¹⁷ A third (33%) of children usually attended for less than 22 hours a week, and hence did not receive their full entitlement of funded ELC from the setting.¹⁸ Table 3.1 shows the full breakdown for weekly (banded) hours attended at the setting.

Table 3.1 Keyworker data on weekly hours attended at the setting (banded)

	%
<16 hours	13
16 to <22 hours	20
22 to <25 hours	22
25 to <28 hours	10
28 to <32 hours	32
32+ hours	3
Unweighted base	410

Base: All respondents (keyworker questionnaire, Phase 4, weighted)

¹⁷ Parent reports suggested a very similar figure of 22.7 hours. The difference is partly due to which children had completed parent questionnaires, as well as differences in how respondents interpreted “usual” attendance.

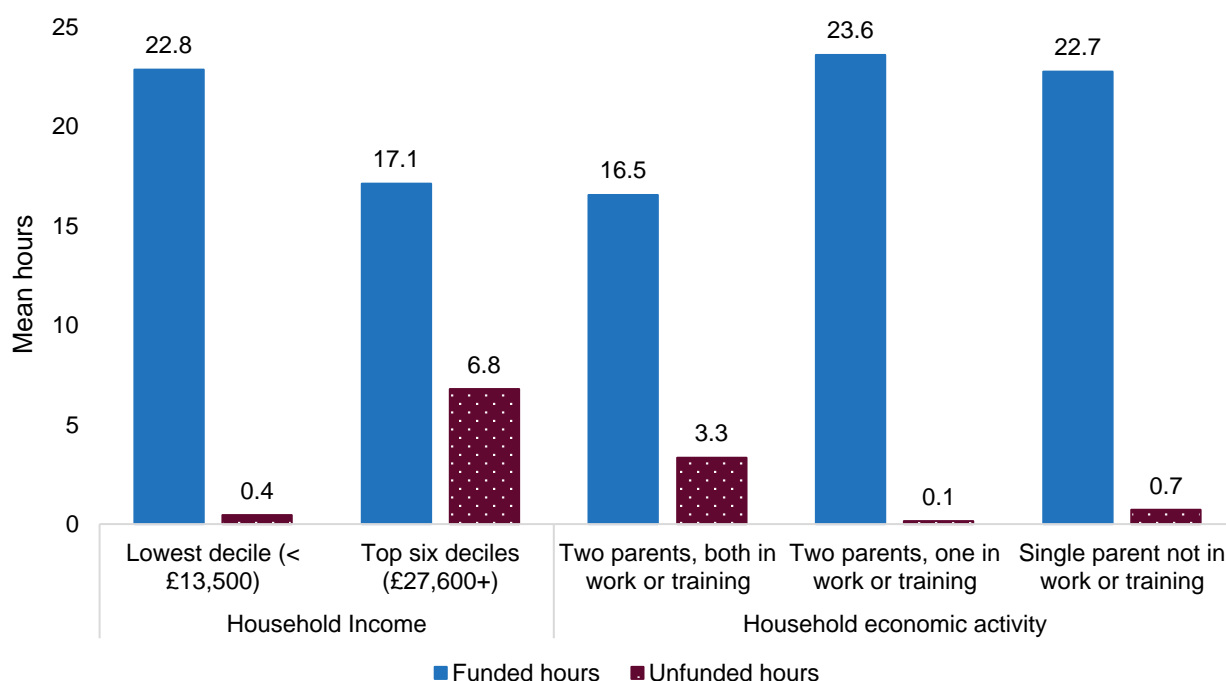
¹⁸ And parent data shows that very few children received formal ELC from another setting in addition.

The mean number of hours **registered** at a setting was 24.3 – 1 hour higher than the mean number of weekly hours typically **attended**. The mean number of weekly funded hours was 23.2 and the mean number of weekly unfunded hours was 1.1.

The remainder of this chapter presents data from the parent questionnaire.

Parents were asked about **all** formal ELC their child received weekly. Formal ELC included childminders, as well as private/local authority/community crèches, nurseries, playgroups or pre-schools. The mean weekly funded hours for **all** formal ELC was 21.6¹⁹, while the mean figure for weekly unfunded hours was 1.3. As shown in Figure 3.1, there was a difference by household income. Those in the top six equivalised income deciles had, on average, a lower number of weekly funded hours (17.1) and a higher number of unfunded hours (6.8) than those in the lowest decile, where the figures were 22.8 and 0.4 respectively. Similarly, children from two parent-households with both parents in work, tended to receive fewer funded hours per week than children from other households.

Figure 3.1 Mean weekly funded and unfunded hours of ELC by Household Income and Household Economic Activity



Base: All respondents (parent questionnaire, Phase 4, weighted)

The full costs of ELC were funded for 89% of all those participating in Phase 4, while 11% of parents paid for additional unfunded hours.

¹⁹ 99% of children did not split funding between more than one setting, hence the mean of 21.6 hours is effectively the mean for the sampled setting. However, this figure from the parent data is slightly lower than that obtained from keyworker data. The difference is partly due to which children had completed parent questionnaires, and partly due to how respondents interpreted the questions.

3.2 Use of additional childcare

Around one in five (18%) parents reported that they used childcare on a regular basis from somewhere other than the participating setting. There were differences by household composition: one third (33%) of respondents living in two-parent households with both in work or training were using additional childcare. The equivalent figure for respondents in two-parent households with one in work or training was 4%.

Most parents (97%) did not use any additional formal ELC, while 3% used a childminder in addition to the formal ELC provided at the participating setting. The most common type of informal childcare used in addition to the care provided by the participating setting was the child's grandparents (13%) (Table 3.2).

Table 3.2 Types of informal childcare used at Phase 4

	%
Grandparents	13
Ex-spouse or partner	4
Another relative	1
Friend or neighbour	0
Someone else	0
No informal ELC	84
Unweighted base	328

Base: All respondents (parent questionnaire, Phase 4, weighted)

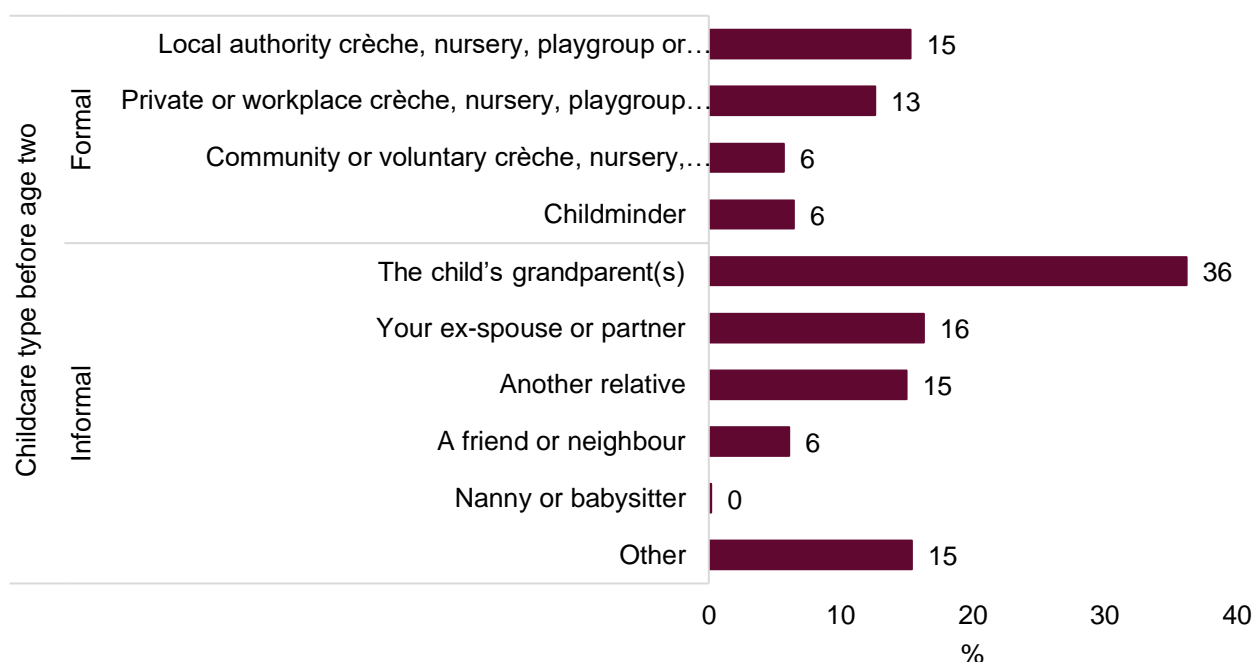
On average, across all parents at Phase 4, 2.6 hours of informal childcare were used. Of those parents who used informal childcare, the mean number of hours of informal childcare used was 18.3. The mean number of hours of informal childcare used was 7.7 hours where the household had two adults who were both in work or training, and zero where there were two adults and one was in work or training. The mean number of informal childcare hours used by those living in the most deprived SIMD quintile was 1.7, compared with 3.3 for those living in other areas.

The mean hours of **all** childcare used, both formal and informal and including the participating setting, was 24.9.

3.3 Previous use of childcare

Parents were asked what types of childcare their child had received before they were two years old. The most common provider of childcare received in this period was the child's grandparents (36%)

Figure 3.2 Type of childcare used before the age of two



Base: All children (with keyworker observations, Phase 4, weighted)

3.4 Engagement with ELC setting

To measure levels of engagement with the ELC setting, parents were asked if they had participated in certain activities. Nine in ten (90%) parents had visited their child's room at the setting, and 44% had attended a parents' evening / information meeting. Around three in ten (32%) had attended another type of event besides a parent evening, and just under one in ten (9%) had helped or offered to help out in the setting, including on a trip or with an event. Only 7% of respondents to the parent questionnaire said they had not done any of activities mentioned.

A separate question asked about types of help and support offered to parents by settings. Table 3.3 shows the responses to this question. Around nine in ten (88%) parents had discussed their child's progress with their keyworker or another member of staff, and over half (54%) had stayed and played with their child. Around four in ten (38%) parents had talked to someone about how to support their child's learning at home, and the same proportion (38%) had received advice or information to support their child's speech, language and communication development. Smaller numbers had received other types of support for the family more generally. These are discussed in Chapter 6 in relation to the setting heads' questionnaire.

Table 3.3 Parental engagement with the ELC setting

	%
Discussed child's progress with her/his keyworker or another member of staff	88
Stayed and played with your child	54
Talked to someone about how to support your child's learning at home	38
Received advice or information to support your child's speech, language and communication development	38
Received help with food or clothing	12
Received wider family support, e.g. with relationships, housing or employability	11
Received help with welfare rights or issues with benefits	9
Learned a new skill such as cooking or parenting skills	7
Received help with transport to and from the nursery	3
None of these	6
Unweighted base	338

Base: All respondents (parent questionnaire, Phase 4, weighted)

Note: respondents were able to choose more than one response. As such, percentages will not total 100%.

For some of the activities asked about, engagement varied by area deprivation. Those in the most deprived areas (48%) were more likely than those living elsewhere (31%) to say they had talked to someone at the setting about how to support their child's learning at home. They were also more likely (49%) than others (31%) to say they had received advice or information to support their child's speech, language and communication development.

3.5 Travel to ELC

Table 3.4 shows that around two-thirds (64%) of respondents to the parent questionnaire lived within 10 minutes of the participating setting their child attended, and 32% had a travel time of 5 minutes or less to the setting.²⁰ Travel times of more than half an hour were more common in rural areas (7%) than urban ones (2%).

²⁰ The questionnaire did not specify the mode of transport.

Table 3.4 Average duration of a single journey from home to the ELC setting

	Total	Urban	Rural
	%	%	%
0 to 5 minutes	32	31	33
6 to 10 minutes	32	33	29
11 to 15 minutes	18	19	16
16 to 20 minutes	8	10	6
21 to 30 minutes	7	6	9
More than 30 minutes	3	2	7
Unweighted base	335	235	89

Base: All respondents (parent questionnaire, Phase 4, weighted)

3.6 Advantages and disadvantages of child being in ELC

Parents were asked to select what the main advantages (if any) were when children aged two attend “pre-school or nursery”. Table 3.5 presents results from this question. In general, advantages for the child were selected more commonly than advantages for the parents. The most commonly selected advantage of having a two-year-old in ELC was that it is “good for children to interact and socialise with other children” (95%), closely followed by ELC being “good for children’s independence/confidence” (92%) and that “children enjoy it” (87%).

Around three-quarters of parents (76%) said an advantage of a child being in ELC is that it “enables parent to work, study or train”. No parents reported that there were no advantages to having a two-year-old in ELC.

Table 3.5 Main advantages of child being in ELC

	%
Good for children to interact and socialise with other children	95
Good for children's independence / confidence	92
Children enjoy it	87
Helps children's educational development (including concentration, memory, language)	84
Good for children to interact and socialise with other adults	84
Prepares children for school	80
Enables parent to work, study or train	76
Good for children's behaviour	75
Enables parent to do other things, e.g., shopping, exercise, free time	64
Enables parent to care for others, e.g., other children, elderly parents	44
No advantages	-
Unweighted base	340

Base: All respondents (parent questionnaire, Phase 4, weighted)

Note: respondents were able to choose more than one response. As such, percentages will not total 100%.

Parents were also asked what they thought were the main disadvantages when children age two attend "pre-school or nursery". Around two-thirds (68%) reported that there were no disadvantages to a child that age being in ELC. Table 3.6 presents the full results from this question. Where a disadvantage was selected, the most commonly chosen were that ELC "hours are not long enough to allow time to work" (12%), that children "may be unhappy" (11%) and that "children pick up bad habits/behaviour" (10%).

Table 3.6 Main disadvantages of child being in ELC

	%
No disadvantages	68
Nursery hours are not long enough to allow time to work	12
Children may be unhappy	11
Children pick up bad habits / behaviour	10
Children don't get enough individual attention	7
Nursery hours are not flexible enough	6
Nursery may not be conveniently located	5
Children too young to leave parents	5
Children are less safe in nursery e.g. bullying / child protection / inadequate supervision	2
Nursery too crowded	2
Quality of care is not as good as at home	1
Unweighted base	329

Base: All respondents (parent questionnaire, Phase 4, weighted)

Note: respondents were able to choose more than one response. As such, percentages will not total 100%.

4. Child health and development

This chapter focuses on data relating to children’s development. Child outcomes explored in the text are:

- social, emotional and behavioural development
- cognitive and language development
- physical and mental health and wellbeing.

At the time of the data collection, the participating Eligible 2s would have been in receipt of the funded ELC entitlement for a maximum of six months, but in most cases no more than four.

The chapter examines parent-report information on the presence of developmental risk factors, such as sleep patterns and breastfeeding, and on the child’s general health and long-term illnesses. Development outcomes are discussed using ELC keyworker observations utilising the Ages and Stages (ASQ) and Strengths and Difficulties (SDQ) Questionnaires²¹ along with additional parent-report data on speech and language specifically.

4.1 Child general health and long-term conditions

The parent questionnaire included a question asking parents to assess the health of their child in general. Over half (55%) of parents assessed the general health of their child to be “very good”, and a further 36% viewed it as being “good”. No parents assessed their child’s general health as “bad” or “very bad”.

Perceptions of the child's general health did vary according to sex of the child, with girls more likely to be described as in “very good” or “good” health in general (94%, compared with 88% of boys). Parents living in the most deprived areas were significantly less likely than those living elsewhere to assess their child’s general health as “very good”.

Parents were also asked if their child had any long-term illnesses. Around one in six (16%) children were described by a parent as having a physical or mental condition or illness lasting or expected to last for 12 months or more. Of those children with a longstanding illness, 19% of parents said the illness limited the child “a lot”, 50% said it limited them “a little”. This equates to 11% of all Eligible 2s attending an ELC setting having a limiting longstanding illness.

Longstanding illnesses were most associated with social or behavioural issues (37% of those children with a long-term condition). A third (33%) of parents said the longstanding illness affected the child's learning, understanding or concentrating, while 25% said it affected the child's stamina or breathing. A complete summary of responses is presented in Table 4.1.

²¹ Further information on these instruments is provided in Appendix C

Table 4.1 How longstanding condition or illness affects child

	%
Other impairment(s)	43
Socially or behaviourally (for example associated with autism spectrum disorder (ASD), or attention deficit hyperactivity disorder (ADHD))	37
Learning or understanding or concentrating	33
Stamina or breathing or fatigue	25
Mobility, such as difficulty moving around	23
Mental health	4
Hearing (e.g. due to deafness or partial hearing)	3
Unweighted base	50

Base: All children with a long-term condition (parent questionnaire, Phase 4, weighted)

4.2 Developmental risk factors

When asked if their child had ever been breastfed, 43% of parents reported that their child had been.²² Breastfeeding rates varied by area deprivation, with 36% of children in the most deprived areas having been breastfed, compared with 47% living elsewhere.

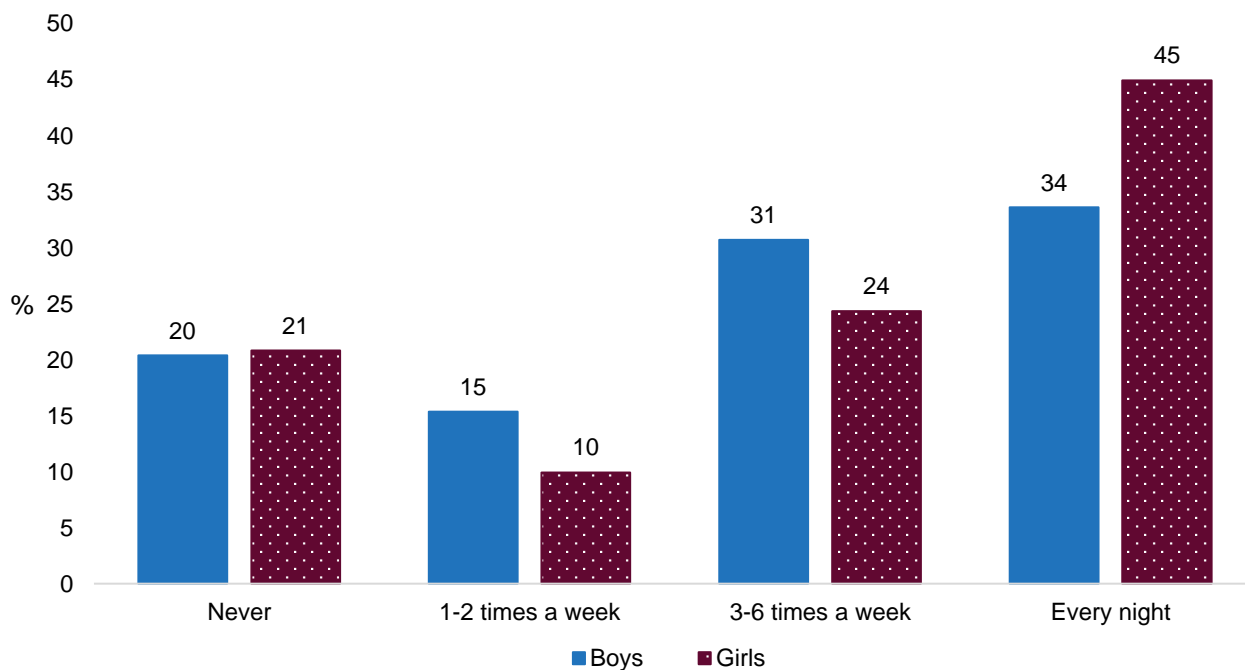
Parents were asked how many hours their child typically slept over a 24-hour period (including daytime naps), and whether their child slept through the night. Not getting enough sleep is recognised as a risk factor related to the child’s development.²³ Over half (57%) of children were reported as sleeping 12 hours or more in a typical 24-hour period, while 12% had under 10 hours sleep. Over the course of a typical week, four in ten (40%) children slept through “every night” without waking or needing to be comforted. In contrast, 21% of children were reported as never sleeping right through the night.

Boys were more likely than girls to get 13 or more hours sleep (25% and 16%, respectively). Whereas girls were more likely than boys to sleep through every night (45%, compared with 34%). Children living in less deprived areas were more likely to never sleep through the night compared with children living in the most deprived areas.

²² Both the NHS and World Health Organisation promote the benefits of breast feeding: [Benefits of breastfeeding - NHS \(www.nhs.uk\)](http://www.nhs.uk); [Infant and young child feeding \(who.int\)](http://who.int)

²³ Children aged two typically need around 11 to 14 hours of sleep in a 24-hour period. Regularly getting less than this is known to be associated with worse developmental outcomes, see for example [Systematic review of the relationships between sleep duration and health indicators in the early years \(0–4 years\) | BMC Public Health \(springer.com\)](http://springer.com)

Figure 4.1 Frequency of sleeping through night by child's sex



Base: All respondents (parent questionnaire, Phase 4, weighted)

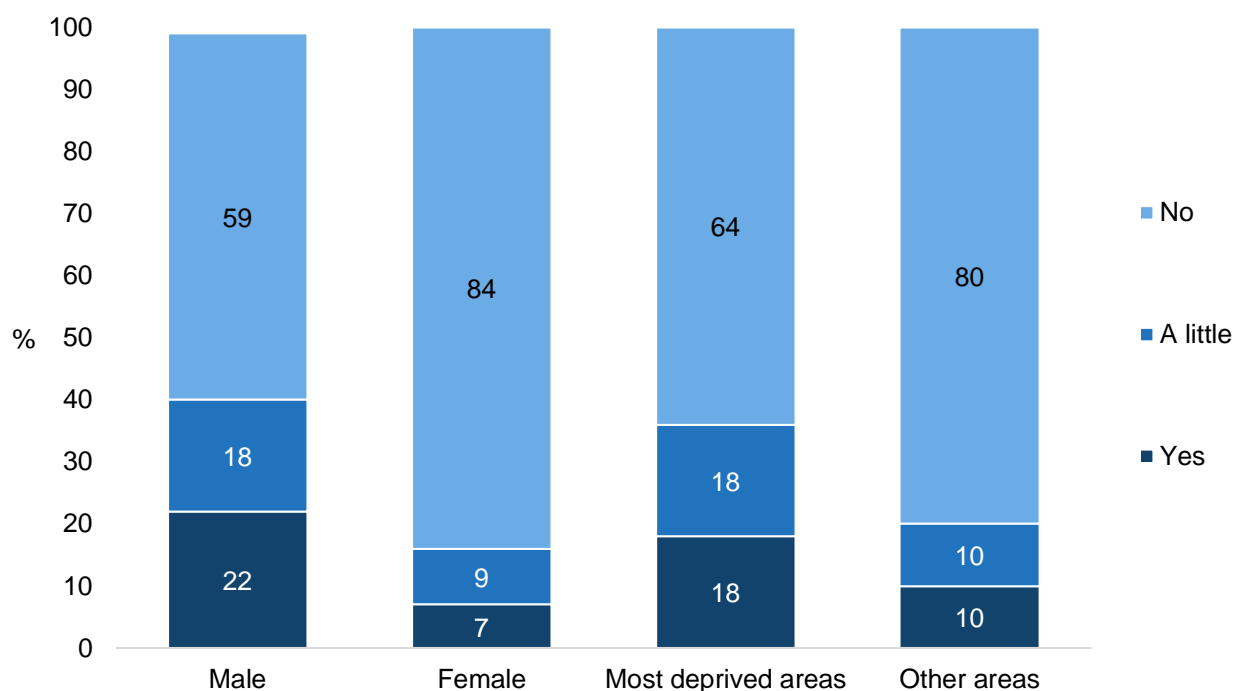
4.3 Speech and language development

The majority of parents reported having no concerns about their child's speech and language development. Three-quarters (74%) had no worries about how their child talks in words or sentences and 81% had no concerns about what their child understands. The remainder were evenly split between those reporting they were concerned or worried about their child's speech (13%) and understanding of what others say (10%) and those feeling "a little" concerned or worried (13% and 10% respectively).

Parents of boys were more likely than parents of girls to report being concerned or a little concerned about their child's speech (41% compared with 16%) and about how their child understands what they or others say (29% compared with 12%).

There was a notable difference in parental concern about child speech and language development by area deprivation, with those living in the most deprived areas most likely to report concerns or worries. While 36% of parents living in the most deprived areas were either concerned or a little concerned about how their child talks, 20% of those living in other areas reported similar levels of concern.

Figure 4.2 Parental concerns about how child speaks, by child’s sex and area deprivation



Base: All respondents (parent questionnaire, Phase 4, weighted)

Parents were also asked if their child received any specific support for speech and language development from their ELC setting. In line with the fact that most parents did not have speech and language concerns, the majority (85%) of children were not receiving specific speech and language development support, according to parents. Five percent of parents reported that their child received “a little” support and 10% said their child did receive specific support.

Parent reports indicated that boys were twice as likely as girls to receive specific speech and language development (22% compared with 10%). There was no notable association between provision of specific speech and language support and area deprivation.

Table 4.3 Specific support for speech and language development by child’s sex

	Boys	Girls	Total
	%	%	%
Yes	15	7	10
A little	7	3	5
No	78	90	85
<i>Unweighted base</i>	<i>153</i>	<i>179</i>	<i>337</i>

Base: All respondents (parent questionnaire, Phase 4, weighted)

The majority of parents with some degree of worry or concern about how their child talked or what they understood indicated that their child was in receipt of specific speech and language support at their ELC setting. However, two in five (42%) of those with concerns about how their child talked were not receiving specific speech and language support.

4.4 Assessments of development

At ELC settings, the children's keyworkers were asked to complete child development observations using the Ages and Stages (ASQ) and Strengths and Difficulties (SDQ) questionnaires.

The ASQ is a structured assessment of a range of developmental domains to identify children at increased risk of developmental difficulties. The instrument includes 30 items split into five different domains: communication, gross motor, fine motor, problem solving and personal-social. Each domain produces a summary score which can be used to indicate whether the child's development is on schedule, needs monitoring or requires further assessment.

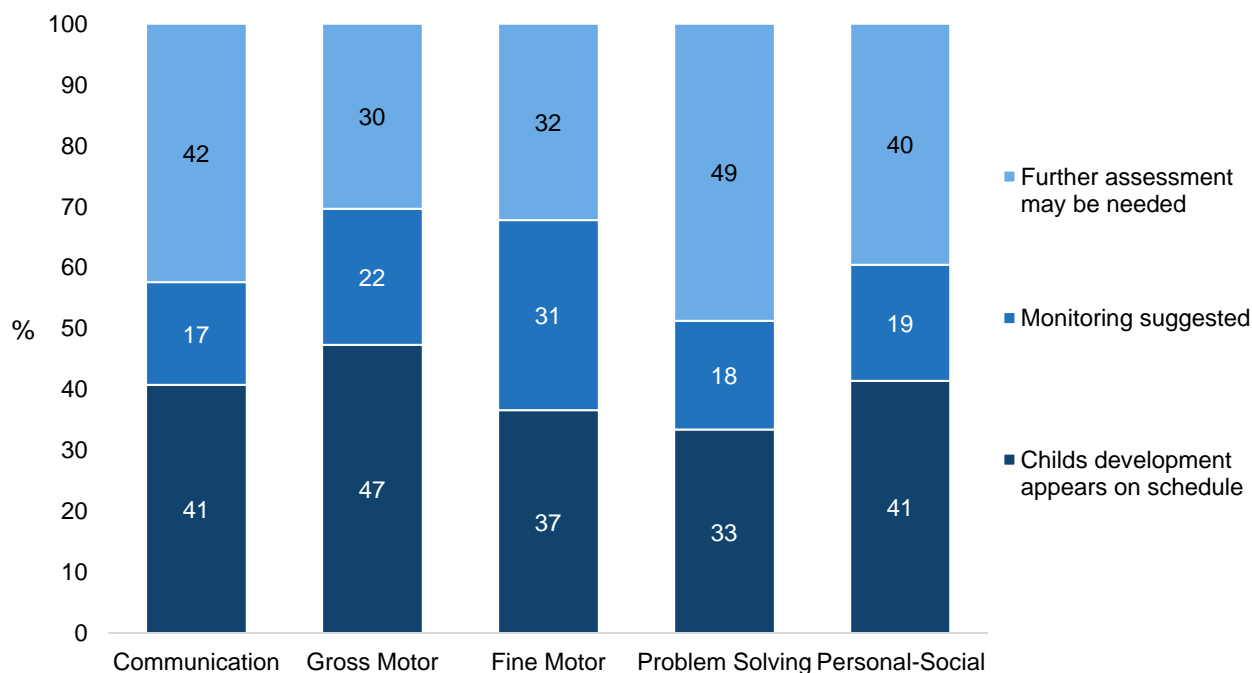
The SDQ is a commonly used behavioural screening questionnaire designed for use with children aged between two and 16. The questionnaire includes 25 questions about a child's behaviour. Responses can be combined to form five different measures of the child's development, namely emotional symptoms (e.g. excessive worrying), conduct problems (e.g. often fighting with other children), hyperactivity / inattention (e.g. constantly fidgeting), peer relationship problems (e.g. not having close friends), and prosocial behaviour (e.g. being kind to others). In addition, the first four measures can be combined into a "total difficulties" scale.

Further details of these measures are included in Appendix C.

Ages and Stages Questionnaire

The proportion of children deemed as having development on schedule, needing further monitoring or requiring further assessment is provided in Figure 4.3 for each of the five ASQ domains. Children were most likely to be on schedule in relation to gross motor development (47%). The proportion on schedule was lowest in relation to problem solving (33%).

Figure 4.3: ASQ score by domain



Base: All children (with keyworker observations, Phase 4, weighted)

Differences in ASQ scores by sex, area deprivation and long-term illness

As is commonly seen on a range of different measures throughout childhood,²⁴ with the exception of gross-motor skills, girls were more likely than boys to be on schedule across the domains (Figure 4.4 to Figure 4.8).

On two of the domains (communication and problem solving), there was an association with area deprivation. For both domains those children living in the areas of greatest deprivation were least likely to be on schedule.

Looking at area deprivation and sex together, differences were particularly pronounced for the communication, fine motor skills and personal-social domains. On all three domains it was boys living in the most deprived areas that were either least likely to be on schedule and/or most likely to be in need of further assessment (Figure 4.4 to Figure 4.8).

Across all the developmental domains, in line with what might be expected, children reported as having a limiting long-standing illness or additional support need were significantly less likely than those with none to be assessed as on schedule developmentally.

ASQ communication domain

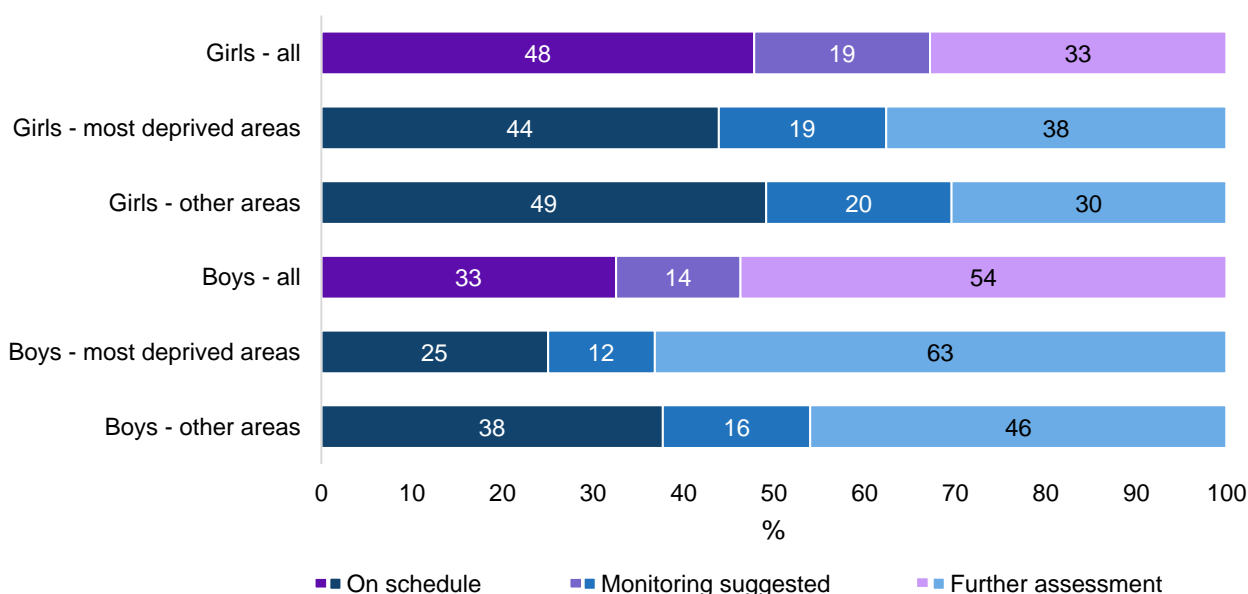
Figure 4.4 breaks down scores on the ASQ communication domain by area deprivation and sex. Girls (48%) were more likely than boys (33%) to be on

²⁴ See, for example: [Achievement of Curriculum for Excellence \(CfE\) Levels 2017-18 - gov.scot \(www.gov.scot\)](https://www.gov.scot/achievements-of-curriculum-for-excellence-cfe-levels-2017-18)

schedule for communication development, with half (54%) of boys classified as “further assessment may be needed”. Children living in the most deprived areas (50%) were less likely than children living elsewhere (37%) to be on schedule.

When broken down by area deprivation and sex, the size of the gap between those in the most deprived areas who were on schedule with communication skills, and those living in other areas, was larger for boys than for girls (13 percentage points for boys and 5 percentage points for girls).

Figure 4.4: ASQ communication score by child’s sex and area deprivation



Base: All children (with keyworker observations, Phase 4, weighted)

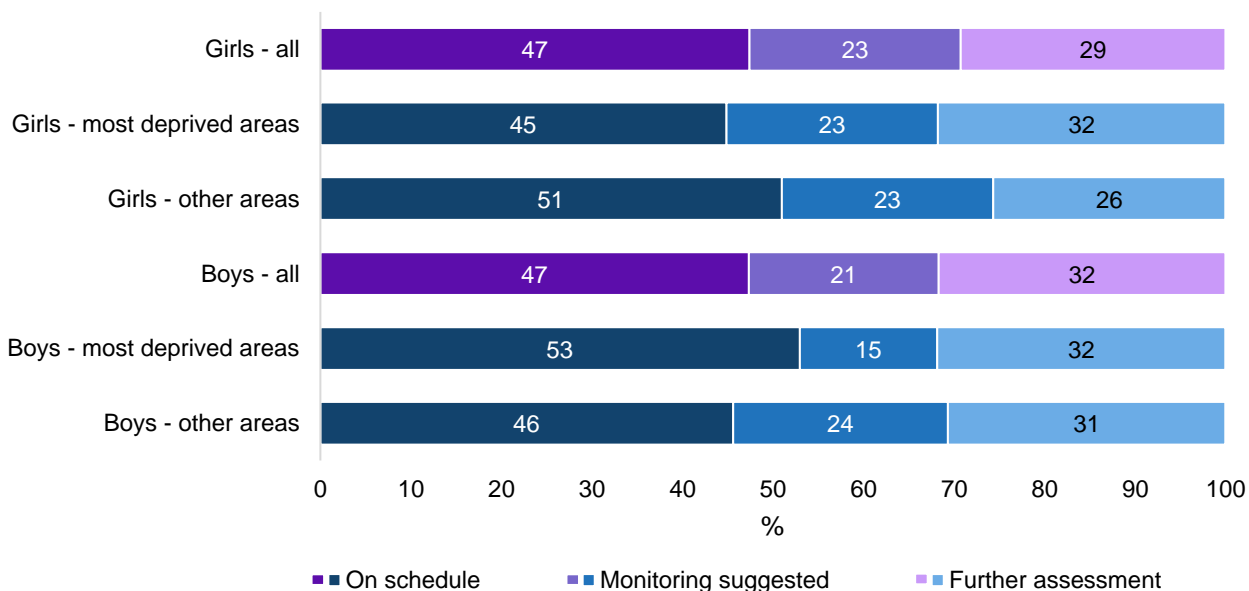
Examining child ASQ communication domain results together with parental concern about child speech and language development indicated that some parents were aware of, and made similar observations, to the child’s keyworker with regards their child’s communication skills. However, there was also a substantial group of parents who were not concerned or worried about their child’s speech and language, despite the child’s ASQ communication domain score indicating there were issues. The parents of half (50%) of those for whom further assessment may be required on the ASQ communication domain had no concerns about how their child talked. Similarly, 60% of this group of parents had no concerns about what their child understood.

The ASQ communication domain score was also related to the provision of specific speech and language support. Children categorised as “further assessment may be required” on the ASQ communication domain were more likely than others to be, according to parent reports, in receipt of specific speech and language development support at the funded ELC setting. That said, two-thirds (66%) of children categorised as “further assessment may be required” were not, according to the participating parent, receiving specific speech and language support at the ELC setting.

ASQ gross motor domain

Scores in the gross motor domain are summarised in Figure 4.5. Unlike other ASQ domains there were no notable differences in gross motor domain scores for boys and girls. For both, almost half (47%) were assessed as appearing to be on schedule for gross motor development.

Figure 4.5: ASQ gross motor score by child's sex and area deprivation

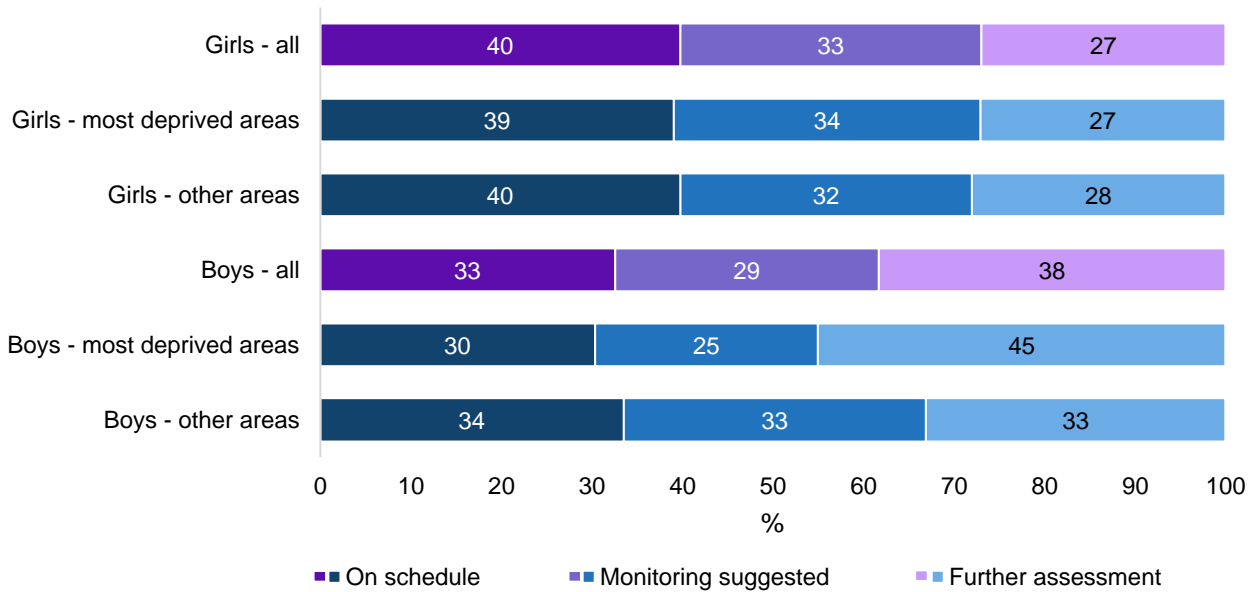


Base: All children (with keyworker observations, Phase 4, weighted)

ASQ fine motor domain

The gap between boys and girls for fine motor skills is shown in Figure 4.6, with 38% of boys being assessed as in need of further assessment, compared with 27% of girls. Boys living in the most deprived areas were more likely than boys living in other areas to be categorised as in need of further assessment for fine motor development (45% and 33%, respectively).

Figure 4.6: ASQ gross motor score by child's sex and area deprivation

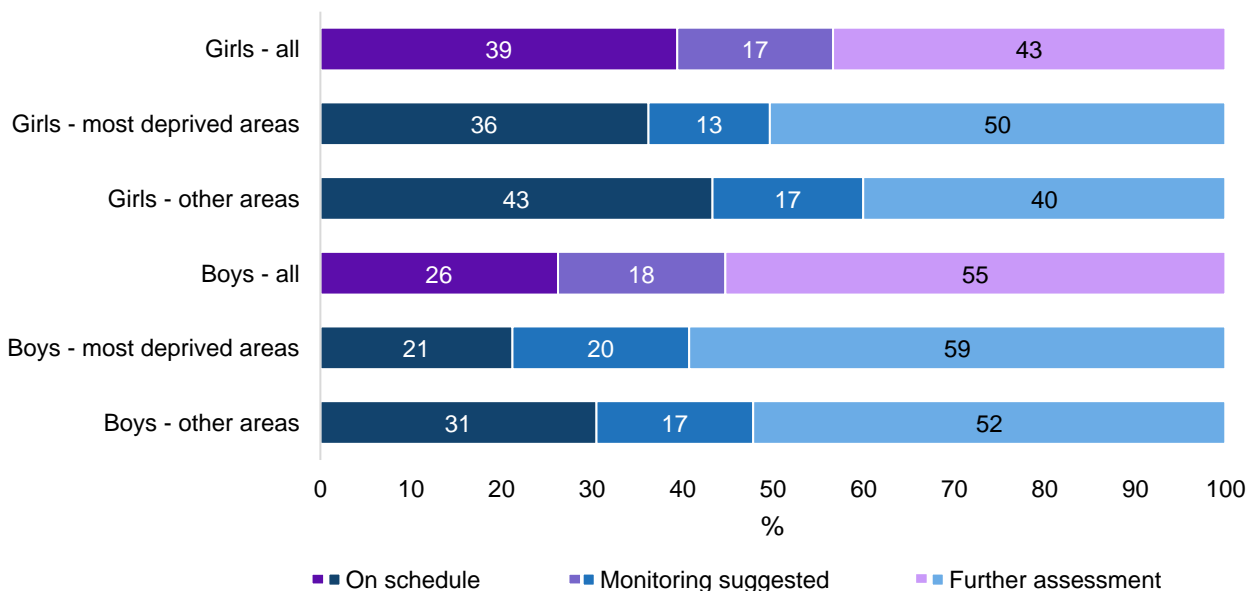


Base: All children (with keyworker observations, Phase 4, weighted)

ASQ problem-solving domain

Boys (26%) were less likely than girls (39%) to be on schedule developmentally for the problem-solving domain (Figure 4.7). Again, boys in the most deprived areas appeared to have greater developmental issues.

Figure 4.7: ASQ problem solving score by child's sex and area deprivation

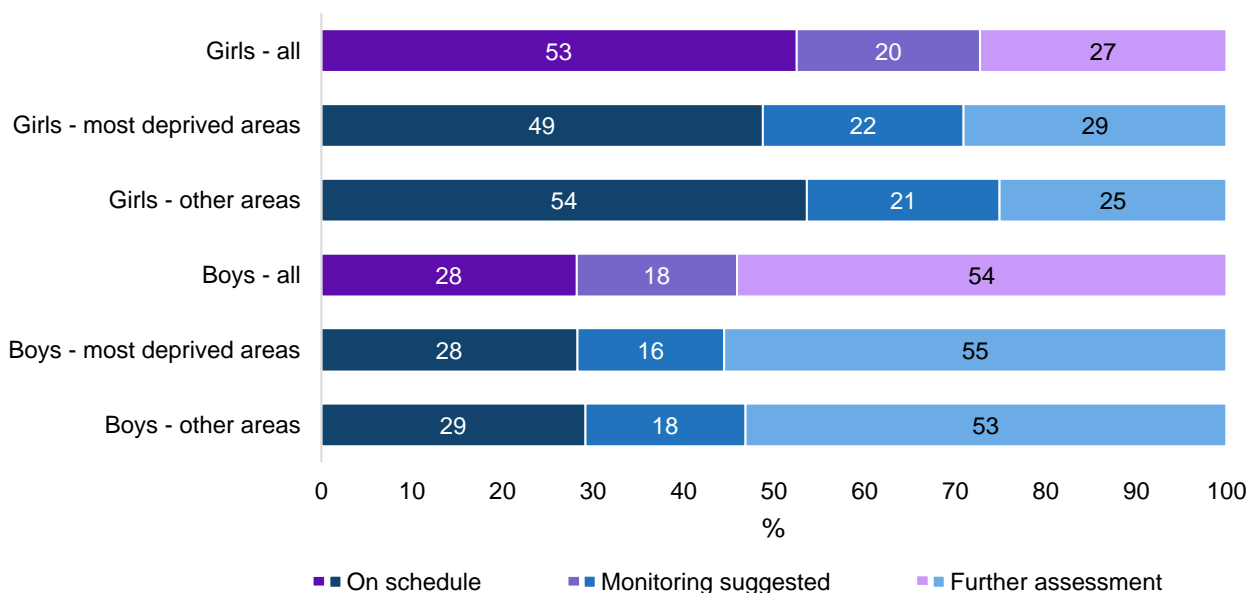


Base: All children (with keyworker observations, Phase 4, weighted)

ASQ personal-social domain

Finally, on the personal-social domain, girls were close to twice as likely as boys to be on schedule (53% and 28% respectively).

Figure 4.8: ASQ personal domain score by child’s sex and area deprivation



Base: All children (with keyworker observations, Phase 4, weighted)

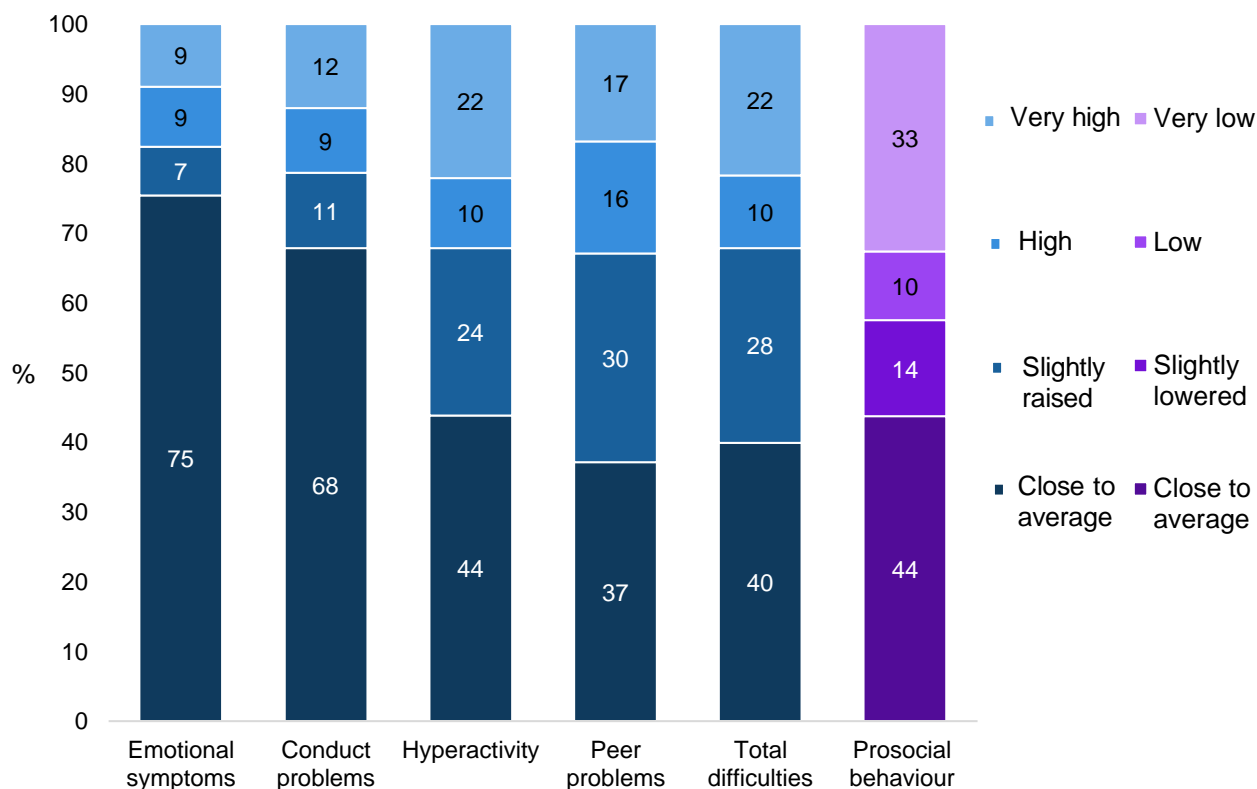
Strengths and Difficulties Questionnaire

A breakdown for all five of the SDQ domains, as well as the total difficulties score, is provided in Figure 4.9. The prosocial behaviour domain is coloured differently to highlight the different labelling, although the general meaning of the categories are similar. The scales are designed so that most children have a score in the “close to average” range, with around 20% of the population having raised scores (lowered for prosocial behaviour),²⁵ although some variation is expected according to the age of the children.

Data from the keyworker observations shows that most children had a SDQ total difficulties score in the “close to average” (40%) or “slightly raised” (28%) range. However, 22% had a total score in the “very high” range. Rates varied across the difficulties domains, with the proportion scoring close to average largest on the emotional symptoms domain (75%) and smallest on the peer problems domain (37%). Very high scores were most commonly observed on the hyperactivity domain (22%).

²⁵ For the first four domains and the total difficulties scale, a higher score is indicative of more problematic behaviour. For the prosocial behaviour domain, a lower score indicates less prosocial behaviour.

Figure 4.9: SDQ score by domain



Base: All children (with keyworker observations, Phase 4, weighted)

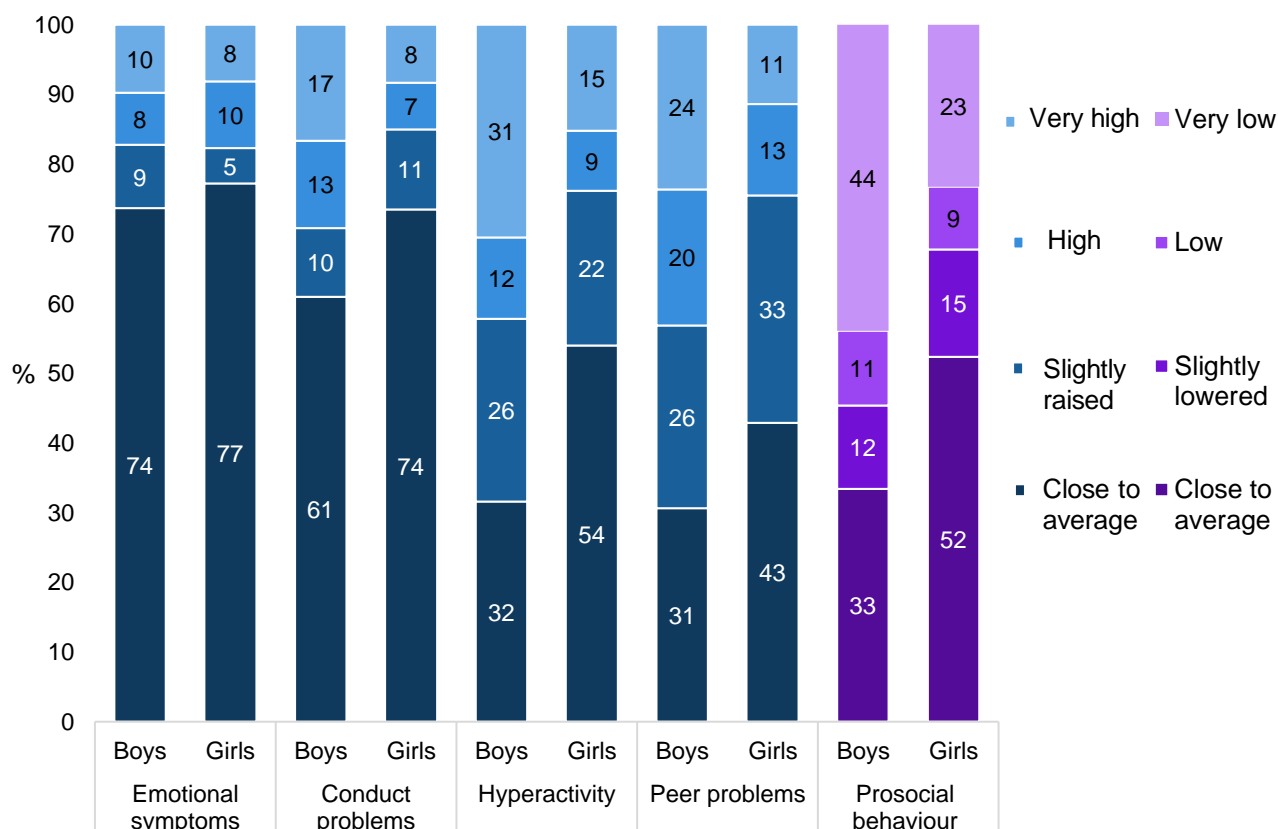
Differences in SDQ scores by child's sex and area deprivation

As seen with the ASQ scores, child sex was a significant factor in predicting child outcomes. With the exception of emotional symptoms, across all the SDQ domains, girls tended to have fewer difficulties than boys (Figure 4.10).

The gap between scores for boys and girls was largest for the hyperactivity domain (54% of girls close to average compared with 32% of boys) and the prosocial behaviour domain (52% of girls and 33% of boys close to average). There were no significant differences between boys and girls for the emotional symptoms domain.

On the total difficulties score, 49% of girls were close to average compared with 29% of boys, with 31% of boys scoring very high compared with 14% of girls (see supplementary tables).

Figure 4.10: SDQ domain scores by child's sex

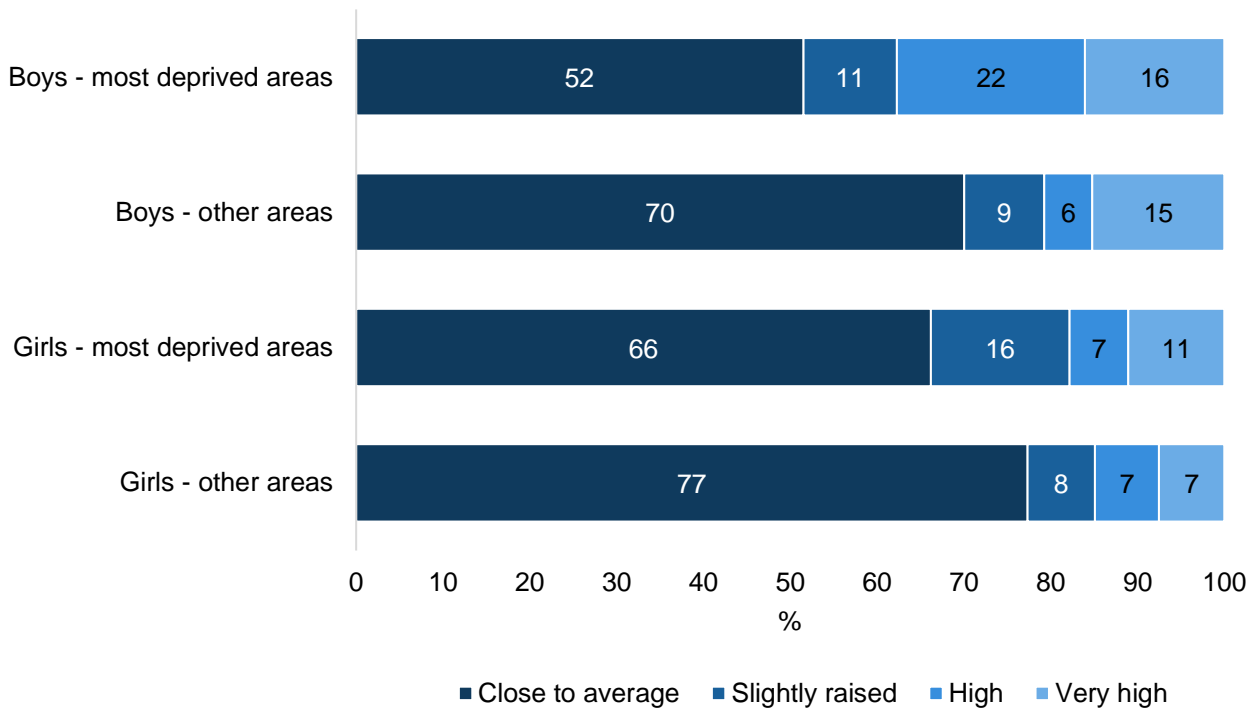


Base: All children (with keyworker observations, Phase 4, weighted)

On some domains there was evidence of an association with area deprivation. For conduct problems, children living in the most deprived areas were more likely than those living in other areas to score high or very high (28%, compared with 17% in other areas). The opposite was observed for the emotional symptoms domain with those in the most deprived areas being *less* likely to score high or very high (12%, compared with 22% in other areas). SDQ total difficulties score did not vary by area deprivation.

When area deprivation and sex were examined together, further differences in SDQ scores were observed. For SDQ total difficulties score, boys living in the most deprived areas were twice as likely as girls in these areas to have a very high score (33% and 15%, respectively). On the individual domains, the gap between boys and girls living in the most deprived areas compared with those living in other areas was largest for the conduct domain (see Figure 4.11).

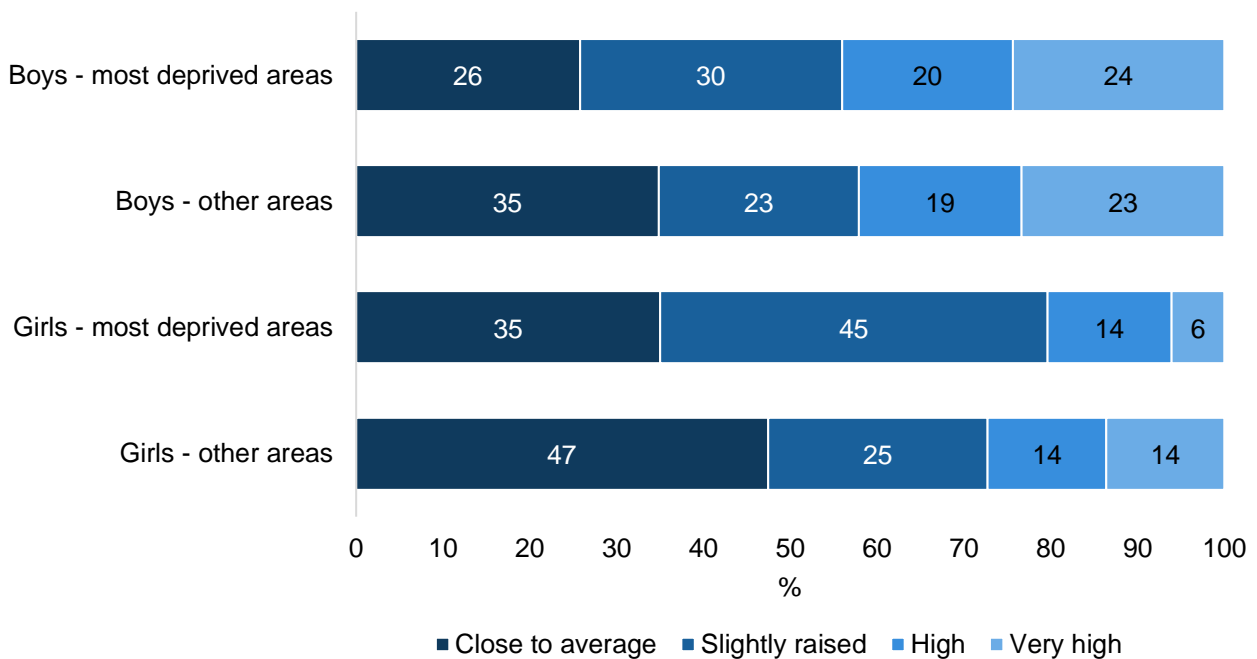
Figure 4.11: SDQ conduct domain scores by child's sex and area deprivation



Base: All children (with keyworker observations, Phase 4, weighted)

Figure 4.12 illustrates similar issues for boys living in the most deprived areas on the peer problems domain.

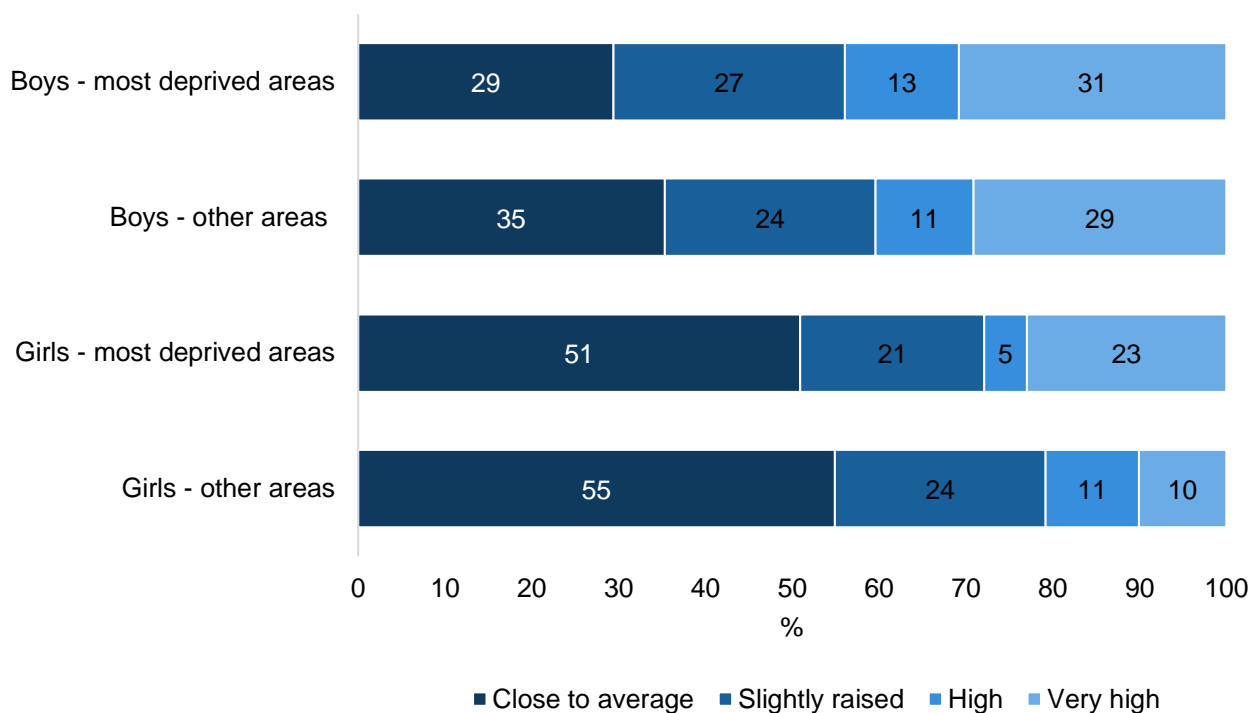
Figure 4.12: SDQ peer problems domain scores by child's sex and area deprivation



Base: All children (with keyworker observations, Phase 4, weighted)

Figure 4.13 shows the large difference in scores between boys and girls on the hyperactivity domain. This difference is further exacerbated by area deprivation.

Figure 4.13: SDQ hyperactivity domain scores by child's sex and area deprivation



Base: All children (with keyworker observations, Phase 4, weighted)

5. Parent outcomes

Data relating to two of the three high level outcomes outlined in the [Evaluation Strategy](#) are considered in this chapter:

- Parents' opportunities to take up or sustain work, study or training increase
- Family wellbeing improves

The following intermediate outcome is also considered:

- Increased parental confidence and capacity.

At the time of the data collection, children would have been receiving funded ELC for a maximum of six months, but less in most cases. For some parents this may have provided an opportunity to look for employment. However, it must be remembered that this group of parents with children eligible for funded ELC at the age of two may need more support than other working-age adults to find and sustain employment or education. While this chapter does report on economic activity, it is important to also consider other measures included in the data, such as time use and wellbeing, which are an indicator of whether the expansion has been beneficial to this group in helping them on the journey to employment.

Factors associated with family wellbeing are also examined, including parental confidence in their ability to cope, the home environment, and support from family and friends.

5.1 Economic activity

Parents were asked about their economic activity in the previous seven days. For the first time at Phase 4, data were also collected on the economic activity of the respondent's partner, if the two of them were living together. Most of the respondents to the parent questionnaire were women (91%). Hence when reading the tables, it should be borne in mind that figures provided for the respondent's economic activity are reflective of women, while those for the partner are more reflective of men (90% of partners were male).

Around two in five of respondents (mostly women) were in employment, with the majority of these working fewer than 30 hours a week (31% of all respondents), and only 9% working full-time. Partners (mostly men) were much more likely to be in full-time employment (51%), with a further 13% in part-time employment. Another 10% of respondents were looking for work or waiting to take up paid work they had already obtained, and 9% were in education (full-time or part-time).²⁶ More than half of the respondents said they were looking after the home or family (57%), while a quarter (26%) said their partner was doing this. Table 5.1 summarises the economic activities of the respondent and their partner.

²⁶ Some of those in education were also in employment or looking for work.

Table 5.1 Economic activity of respondent and partner

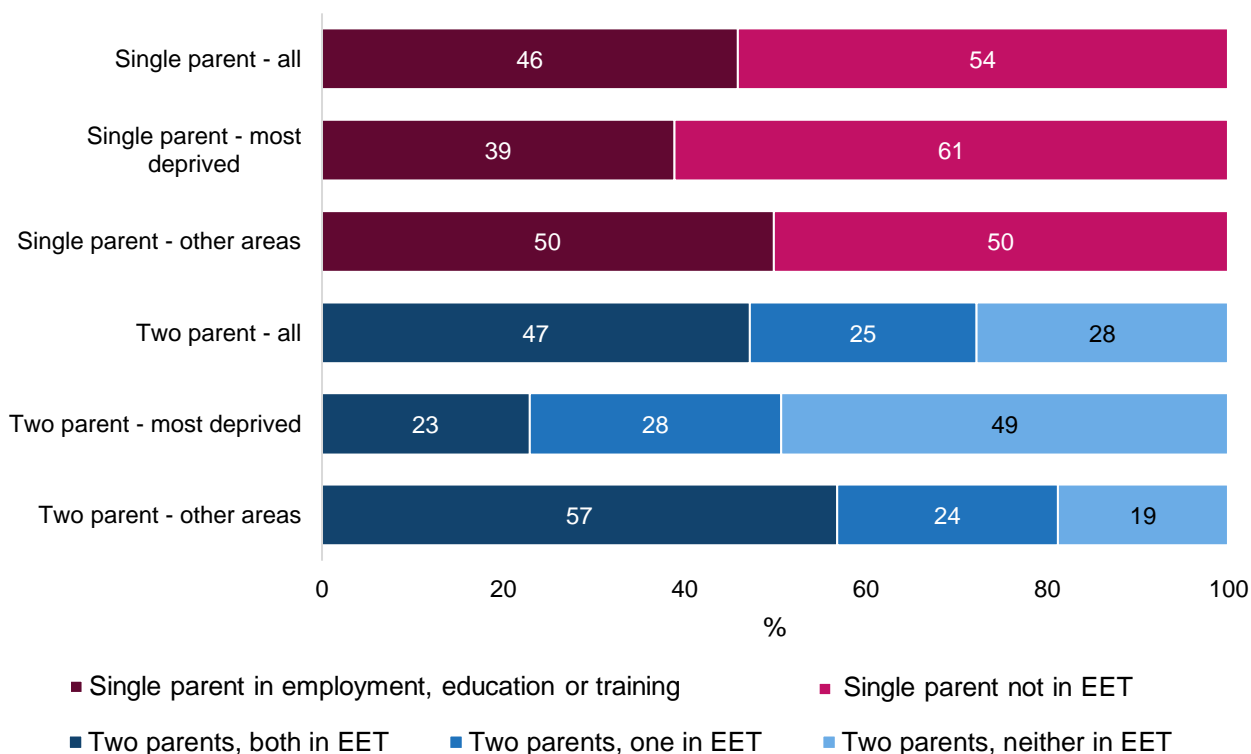
What were you doing last week, that is the seven days ending last Sunday?	Respondent	Partner
	%	%
Working 30 or more hours a week (including if currently on leave or sick)	9	51
Working fewer than 30 hours a week (including if currently on leave or sick)	31	13
On maternity/parental leave from an employer	1	-
Looking after home or family	57	26
Waiting to take up paid work already obtained	1	1
Out of work and looking for a job	9	4
Out of work, because of long-term sickness or disability	13	16
On a Government training or employment scheme	1	1
In full-time education (including on vacation)	6	2
In part-time education (including on vacation)	4	2
Wholly retired	1	1
Not in paid work for some other reason	15	7
Unweighted base	331	130

Base: All respondents (parent questionnaire, Phase 4, weighted)

Note: respondents were able to choose more than one response. As such, percentages will not total 100%.

Figure 5.1 shows that nearly half (47%) of two-parent households with an eligible two-year-old had both parents in work, training or full-time education, while a further 25% had one parent undertaking such activities. Just under half (46%) of single parents with an eligible two-year-old at Phase 4 were in work, training or full-time education. Those living in deprived areas were less likely to be active in these ways: 51% of two-parent households with an eligible two-year-old living in the most deprived areas had at least one parent in employment, training or full-time education, compared with 81% in other areas. Differences for single parents were less stark (39% in the most deprived areas and 50% in other areas).

Figure 5.1 Economic activity of respondent and partner by family type and area deprivation



Base: All respondents (parent questionnaire, Phase 4, weighted)

Table 5.2 shows some of the multiple roles parents describe themselves as combining. Of those who said that they were looking after the family or home, only a third (35%) reported doing none of the other activities. Those who said they were in employment were less likely to report combining this with other activities. Two-thirds of those in full-time employment (67%) only mentioned being in work. Similarly, 52% of those in part-time employment only mentioned work, even though looking after children is likely to be a major part of the day-to-day life for nearly all of these parents.

Table 5.2 Multiple economic activities of respondents

Those who describe themselves as looking after the home or family

Only looking after home or family	Also in education	Also in employment	Also in both employment and education	Also looking for work / out of work for some other reason	<i>Unweighted base</i>
%	%	%	%	%	
35	5	30	1	29	191

Those who describe themselves as in full-time employment (30+ hours / week)

Only in FT work	Also in education	Also looking after the family	Also both in education and looking after the family	<i>Unweighted base</i>
%	%	%	%	
67	3	30	-	37

Those who describe themselves as in part-time employment (<30 hours / week)

Only in PT work	Also in education	Also looking after the family	Also both in education and looking after the family	<i>Unweighted base</i>
%	%	%	%	
52	5	41	3	97

Base: All respondents who reported themselves to be looking after the home or family; to be in full-time employment; or to be in part-time employment (parent questionnaire, Phase 4, weighted)

At Phase 4, parents were asked for the first time whether they, or their partner, had experienced any change in their employment as a result of their child starting funded early learning and childcare. As shown in Table 5.3, nearly half (44%) of the respondents had experienced some form of change in their situation; 15% reported they had entered or re-entered employment, 15% had started looking for work or a change in job, and 11% had entered or re-entered education or training.

Fewer partners (28%) had experienced a change. As noted earlier, partners were already more likely to be in employment or education.

Table 5.3 Proportion of respondents and partners reporting each type of change in employment / education since child started funded ELC

As a result of your child starting funded early learning and childcare, have you or your partner experienced any of the following?	Respondent	Partner
	%	%
Entered / re-entered employment	15	5
Change of employer	2	5
Change of job / role with the same employer	1	5
Change of employment status (e.g. from self-employed to employee)	2	-
Started looking for work / a change of job	15	6
Increase in usual hours at work	7	7
Decrease in usual hours at work	3	4
Increase in income / pay	5	4
Decrease in income / pay	4	2
Entered / re-entered education or training	11	7
None of these	56	72
Unweighted base	316	109

Base: All respondents (parent questionnaire, Phase 4, weighted)

Note: respondents were able to choose more than one response. As such, percentages will not total 100%.

Overall, three in five (59%) respondents were not in work. Respondents from two-parent households were less likely to be out of work (54% not currently working, compared with 65% of single parents). Respondents who were in employment worked for an average of 20.5 hours a week. This was higher in two-parent households (23.4 hours) where childcare might be shared between parents, than in single parent households (17.3 hours).

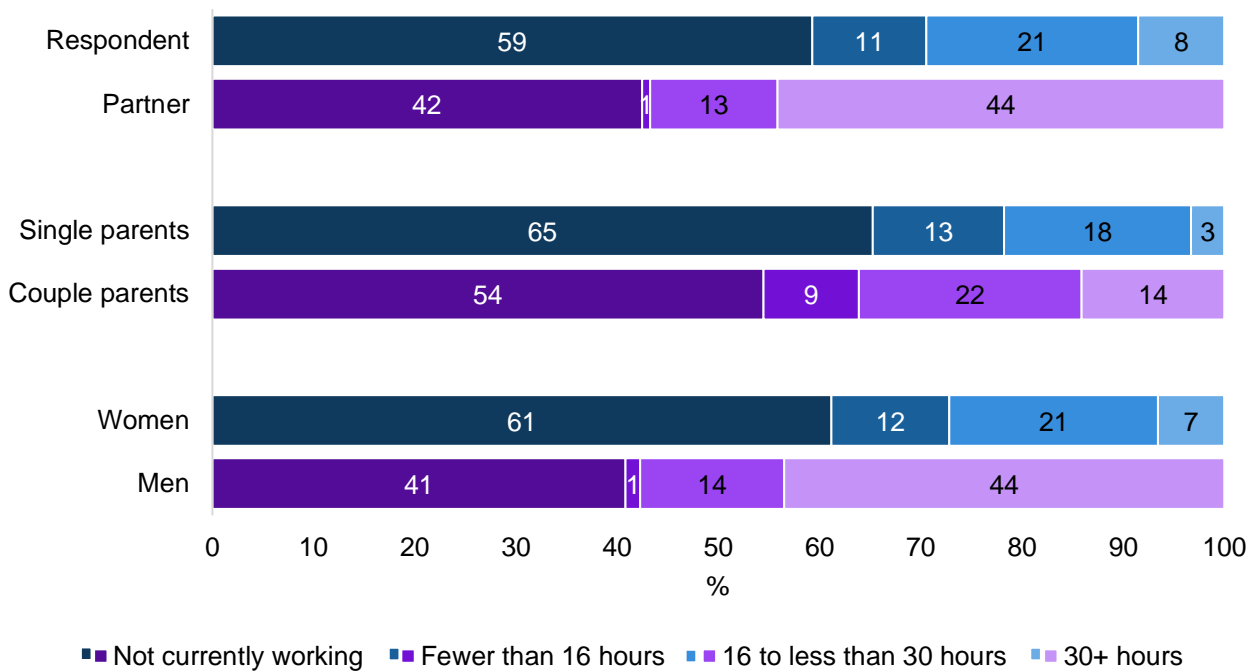
Respondents in deprived areas were less likely to be in work than those who lived in other areas (69% not currently working in deprived areas, compared with 53% in other areas). There was no notable difference in the average hours worked by level of area deprivation.

Partners, who were mostly male, were more likely to be in work and tended to work longer hours than the respondents, who were mostly female and the main carer in the household. Just over two in five (42%) partners were out of work. The average number of hours worked by partners who were in employment was 35.4.

Combining data about the respondents and their partners, it is possible to obtain estimates for female and male work hours. Figures 5.2 and 5.3 demonstrate that

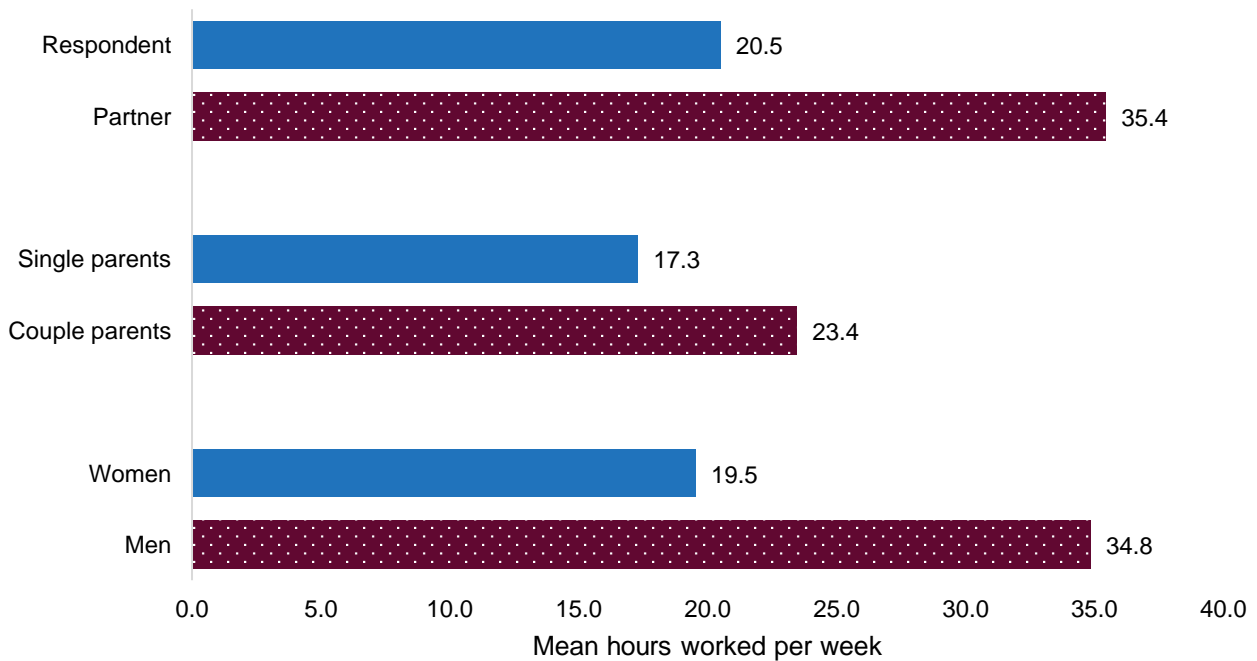
data for respondents very closely matches that for women, and data for partners matches that for men.

Figure 5.2 Banded working hours, including not currently working



Base: All respondents / respondents with a partner.

Figure 5.3 Mean hours worked by those currently in employment



Base: Working respondents / respondents with a partner in work.

Another question introduced for Phase 4 of the study was about working patterns. More than three-quarters (77%) of the respondents in work had a non-standard

pattern, the majority of these with some form of flexible working to suit the employee. The most commonly reported non-standard working patterns were flexitime (31%) and annualised hours²⁷ (27%). Term-time working was mentioned by 10% of respondents in work and zero-hours contracts²⁸ were mentioned by 11%. Flexitime (25%) and annualised hours (40%) were also the most commonly reported patterns for partners.

Respondents were asked where they, and their partner if they lived with one, usually worked. The large majority (88%) worked away from their home, but 6% worked entirely at home and a further 6% combined home working and working elsewhere. A similar pattern was seen for partners, with 6% working entirely at home and 10% combining home working with working elsewhere.

Of those who were not working, 38% said they would be able to start work within two weeks if a job became available. Respondents who were not working were asked how much they agreed or disagreed with the statement: "A lack of affordable, convenient, good quality childcare is one of the main reasons I'm not working at the moment". One in five (20%) agreed, while just over half (52%) disagreed. Disagreement was more common in non-deprived areas (61%) than in the most deprived areas (43%).

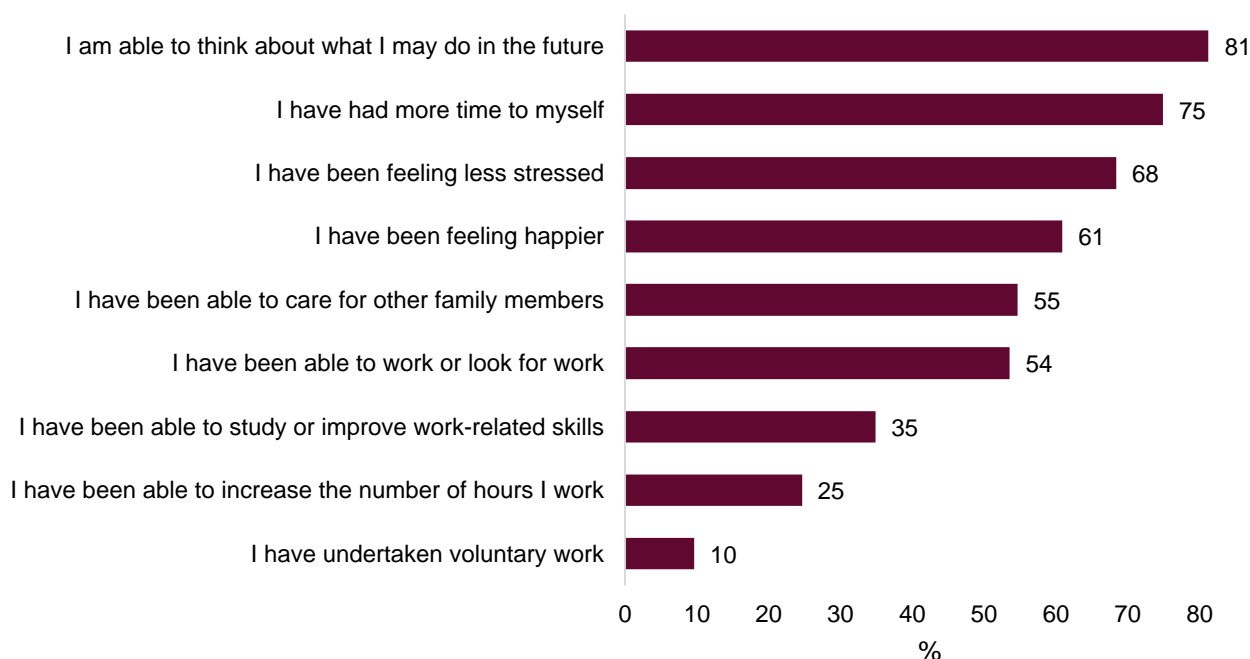
5.2 Effect of ELC on parental time use

Respondents were asked how much they agreed or disagreed that they had been able to do a number of things because their child is in ELC. Figure 5.4 shows the proportion agreeing with each of the statements. Four in five respondents (81%) agreed they had been able to think about what they may do in the future and three-quarters (75%) agreed they had had more time to themselves. The majority also agreed they were feeling less stressed (68%), were feeling happier (61%), had been able to care for other family members (55%), and had been able to work or look for work (54%).

²⁷ Annualised hours employment contracts specify the number of hours to be worked in a year. Most of these are likely to be worked to a schedule, which may vary across the year, but some may be used flexibly as agreed between the employee and employer.

²⁸ Zero hours contracts are a type of contract with no minimum working hours guaranteed. The employer does not have to provide work every month, and work can be accepted or refused by the employee.

Figure 5.4 Proportion agreeing that, because their child is in nursery...



Base: All respondents (parent questionnaire, Phase 4, weighted)

5.3 Parental general health and wellbeing

One in five respondents (21%) said that their general health was very good, while a further 41% said it was good, 26% fair, and 12% bad or very bad. Those living in deprived areas were less likely to say their health was good or very good than those living in other areas (53%, compared with 67%).

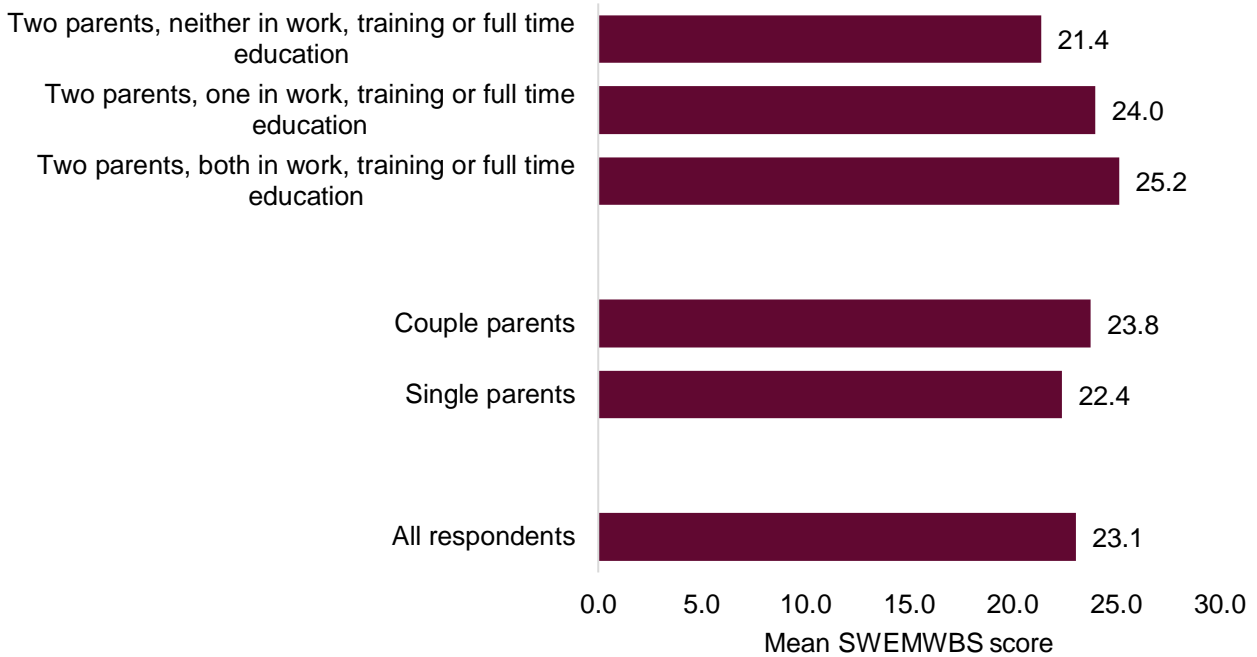
Two in five (40%) respondents had a long-term illness or health condition. Partners were less likely to have a long-term condition (27%) than respondents. At least one person in the household (excluding the eligible two-year-old) had a long-term condition in over half of households (52%).

By far the most common area in which respondents and their partners were affected by a long-term condition was their mental health: 79% of respondents and 60% of their partners with long-term conditions were affected in this way. Between 17% and 23% of respondents were also affected in their stamina or breathing or fatigue, socially or behaviourally, in their learning or understanding or concentrating, in their mobility or in their memory.

Of those respondents with a health condition, 36% said it limited their activities a lot, while a further 46% said it limited their activities a little and 18% said it did not limit their activities. Figures for the partner were similar.

Figure 5.5 shows that mental wellbeing was higher among respondents living in two-parent households than single-parent households. In two-parent households it was also higher if at least one of the parents worked or was in education than if neither was.

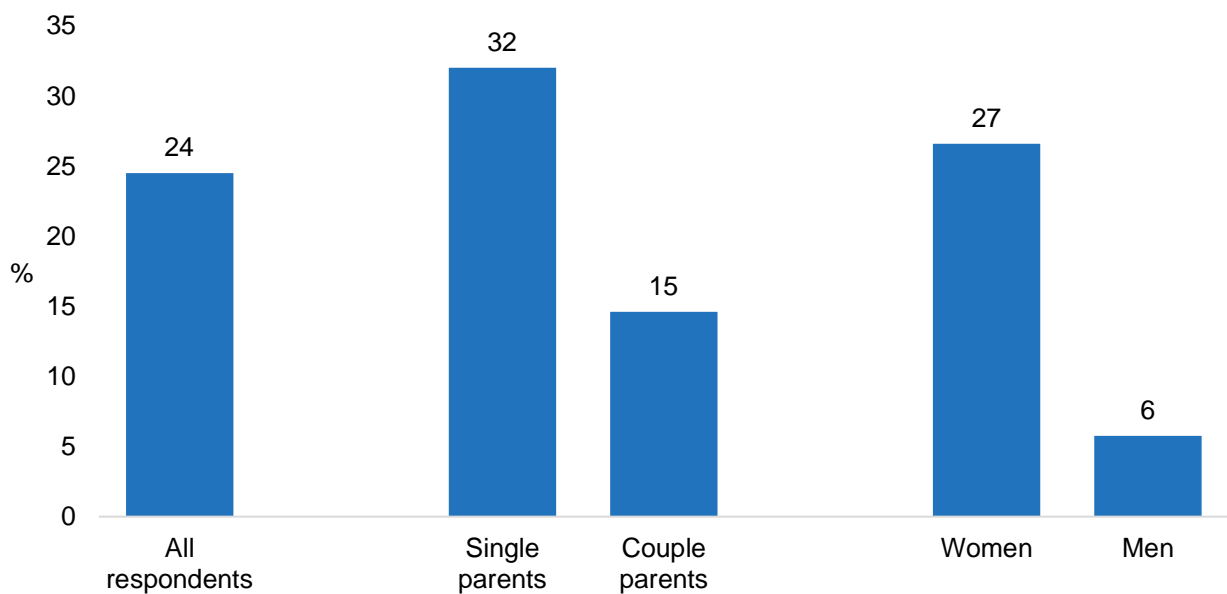
Figure 5.5 Mean SWEMWBS score



Base: All respondents (parent questionnaire, Phase 4, weighted)

The same pattern with respect to single and couple parents could be seen when looking at low wellbeing rather than mean wellbeing scores – 32% of single parents were in the “low wellbeing” bracket compared with 15% of respondents from two-parent households. Female respondents were also more likely to report low wellbeing than male respondents (27% in the “low wellbeing” bracket, compared with 6% of male respondents) (see Figure 5.6).

Figure 5.6 Proportion experiencing low wellbeing (SWEMWBS)



Base: All respondents (parent questionnaire, Phase 4, weighted)

Parents were asked, on a scale of 0 to 10, how satisfied they were with their life nowadays. Respondents from two-parent households had a higher mean life satisfaction score than single parents (7.8 in two-parent households, compared with 7.1 for single parents and 7.4 for all respondents).

5.4 Parental confidence and capacity and home environment

The Evaluation Strategy for the expansion of early learning and childcare identifies the improvement of family wellbeing as a key aim of the expansion. “Family wellbeing” is not as simple a concept to pin down as the individual wellbeing discussed above. There are no direct measures of family wellbeing within the SSELC questionnaires. Instead, there are a number of measures of things known to be related to family wellbeing. These include how well a parent feels they are coping, the frequency of activities related to home learning, how calm or chaotic the home environment is, the warmth of the bond between parent and child, and feelings about the level of support from friends and family.

Table 5.4 shows the four items that make up the Home Learning Environment scale. This comprises the number of days per week on which a child does the activity with someone at home. Nearly half (46%) of respondents reported that the child looked at books or stories every day, with no difference between boys and girls (47% and 45% respectively).

Girls were more likely than boys to do painting or drawing every day (26%, compared with 13% of boys), while only 4% of girls did not do painting or drawing at all in the last week, compared with 15% of boys. Girls were also more likely than boys to recite nursery rhymes or sing songs with someone at home every day (69%, compared with 58% of boys). Only 5% of girls did not do this activity at home during the previous week, compared with 14% of boys.

While there was no difference in the proportions of boys and girls playing at recognising letters, words, shapes or numbers in the previous week (36% of girls and 33% of boys), boys were more likely not to have done this at all (22%, compared with 10% of girls).

Table 5.4 Home learning environment, frequency of activities

	Boys	Girls	All
	%	%	%
Looked at books or read stories			
Not in last 7 days	4	2	3
1 to 3 days	20	17	18
4 to 6 days	29	35	33
7 days	47	45	46
Painting or drawing			
Not in last 7 days	15	4	9
1 to 3 days	36	33	35
4 to 6 days	35	37	36
7 days	13	26	21
Recited nursery rhymes or sung songs			
Not in last 7 days	14	5	9
1 to 3 days	10	7	8
4 to 6 days	19	19	19
7 days	58	69	64
Recognising letters, words, numbers or shapes			
Not in last 7 days	22	10	15
1 to 3 days	22	24	23
4 to 6 days	23	30	27
7 days	33	36	34
Unweighted base	150	179	334

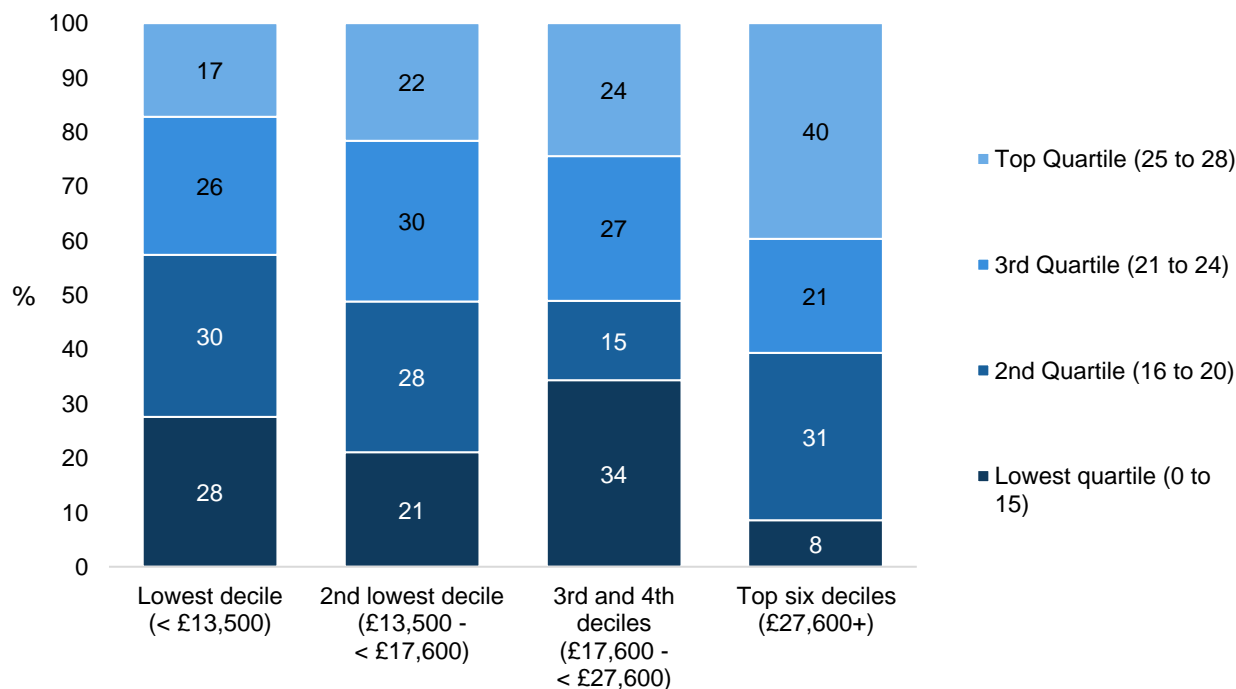
Base: All children (parent questionnaire, Phase 4, weighted)

A home learning environment scale was created by summing the number of days on which each of the four activities had occurred in the last week. As Figure 5.7 shows, there was a difference by household income in the proportion of families falling into the lowest quartile of the scale²⁹, even though this was not evident in the individual items. Only 8% of those in the wealthiest group (the top six equivalised

²⁹ Quartiles were determined based on frequencies at Phase 1, to allow comparisons between the two phases.

income deciles) were in the lowest quartile for frequency of home learning activities, compared with 21% to 34% in the lower income groups.

Figure 5.7 Home learning environment quartiles by equivalised household income



Base: All respondents (parent questionnaire, Phase 4, weighted)

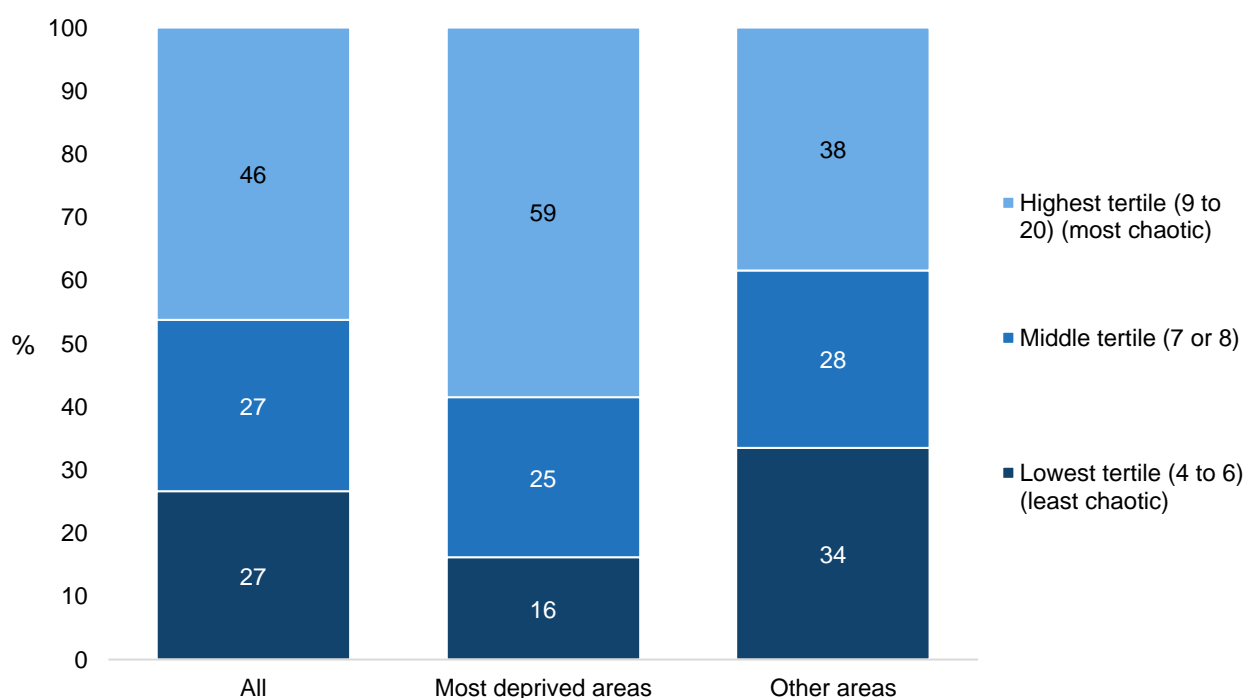
Another measure of the home environment is the Confusion, Hubbub and Order Scale³⁰, designed to assess the level of calmness and order within the household.

The majority of respondents had fairly calm homes: 82% agreed with the statement that “First thing in the day, we have a regular routine at home”; 68% agreed that “The atmosphere in our home is calm”; 71% disagreed that “It’s really disorganised in our home” and 59% disagreed that “You can’t really hear yourself think in our home”.

While the individual items of the scale did not vary significantly between subgroups, when the items were summed to form a scale, differences by area deprivation were evident (see Figure 5.8). In the most deprived areas, 59% were in the most chaotic group and 16% in the least chaotic, while in other areas, 38% were in the most chaotic group and 34% in the least chaotic. Differences were also identified by income, with 45% of those in the highest income group (the top 6 deciles) in the least chaotic category, compared with between 18% and 22% in the lower income groups.

³⁰ Matheny, A. P., Jr., Wachs, T.d., Ludwig, J.L., and Phillips, K. (1995). “Bringing Order Out of Chaos: Psychometric Characteristics of the Confusion, Hubbub, and Order Scale.” *Journal of Applied Developmental Psychology*, 16, pp. 429-444.

Figure 5.8 Confusion, Hubbub and Order Scale, by Scottish Index of Multiple Deprivation quintiles



Base: All respondents (parent questionnaire, Phase 4, weighted)

The parent-child warmth scale used in the SSELC comprises the seven items that form the warmth dimension of the short form of the Mothers' Object Relations Scale (MORS-SF).³¹ See Appendix C for more information.

In general, respondents were very positive about their relationship with their child. For six of the seven items, at least 72% reported the action happening all of the time. When the items were summed to form a scale, 40% fell into the top category, responding "all of the time" to all seven statements, and a further 30% fell into the second category, responding "all of the time" to at least four of the statements. Little variation was observed between subgroups.

The majority of parents (56%) thought they were coping at least pretty well most of the time, with a further 38% reporting that sometimes they were coping, but sometimes things got on top of them. Only 6% felt that most of the time they were not coping very well or at all.

With regards to support or help with childcare from family and friends living outside their household, 62% of respondents said they got enough support, while 9% said they did not need any. The remaining 30% either said they did not get enough (13%) or that they did not get any support (16%).

³¹ Oates J, Gervai J: Mothers Object Relations Scale: Assessing mothers' models of their infants. Open Univ. 1984. See also [MORS Tools | Mothers Object Relations Scales \(MORS\) \(morscales.org\)](http://morscales.org)

6. Views of setting managers

An online questionnaire for heads or managers of participating ELC settings was introduced at Phase 4. This aimed to capture their views on the impact the expansion of funded ELC has had on their setting. The questionnaire included questions on the kinds of support offered to parents, what meals they provide to the children, and issues they have faced with food provision.

6.1 Support provided to families

Setting managers were asked what types of support their setting offered to families of children in their setting – see Table 6.1 below.

Table 6.1: Types of support offered to families of Eligible 2s and all families of children in the setting

	Offered to families of Eligible 2s	Offered to all families
	%	%
Support for parents on parenting concerns	90	97
Support for parents to help with their child's learning at home	89	93
Support within the setting for parents to help their child's speech and language development	90	93
Support within the setting for parents to help their child with an(other) additional support need	82	90
Provision of clothing for children	47	49
Support for maintaining good family relationships	45	48
Advice or information for parents to maximise benefits take up	37	41
Provision of food for families to eat at home	39	40
Provide opportunities for parents to learn / improve skills (e.g. cooking, English language, gardening etc)	25	33
Support for parents to develop skills that may help them find employment	17	18
Help with finding or maintaining housing	14	16
Help with transport to and from the ELC setting	6	8
Unweighted bases	155	152

Base: All respondents (setting head questionnaire, Phase 4, weighted)

Note: respondents were able to choose more than one response. As such, percentages will not total 100%

In general, responses to the manager questionnaires were the same for most settings, whether answering about the families of all children or just about the Eligible 2s.³² Post-expansion, most settings reported offering support for parents of all children on parenting concerns (97%), to help their child's speech, language and communication development (93%), to help with their child's learning at home (93%) and to help their child with an(other) additional support need (90%). Other types of support were also offered by some settings, such as provision of clothing for children (49%) and opportunities for parents to learn / improve skills (33%). Table 6.1 provides a list of the supports offered to families of all children and to families of eligible two-year-olds.

To measure managers' perceptions of the ELC expansion's impact on the ability of settings to provide support to families, setting managers were asked the extent to which they agreed or disagreed with three statements:

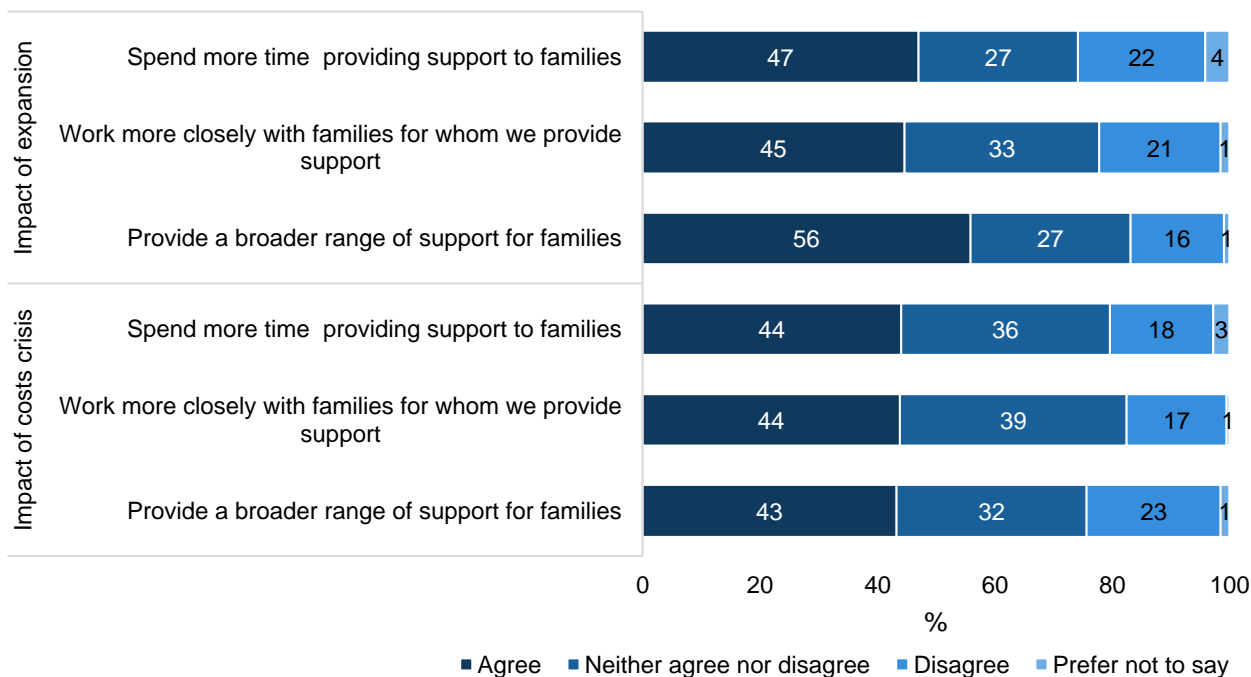
- "The expansion has helped us to provide a broader range of support for families"
- "The expansion has led us to work more closely with families for whom we provide support"
- "The expansion has led us to spend more time providing support to families".

As shown in Figure 6.1, over half (56%) of setting managers agreed or strongly agreed that the expansion of ELC had helped to provide a broader range of support for families. Just under half (45%) of setting managers agreed that the expansion of ELC had led them to work more closely with families for whom they provide support, similar to the proportion agreeing that it has led them to spend more time providing support to families (47%).

Setting managers were also asked the extent to which they agreed or disagreed with these same statements but in relation to the impact of the cost of living crisis on their ability to provide support to families. Similar to their views on the impact of the expansion, managers were more likely to agree than to disagree with each of the statements on family support (see Figure 6.1).

³² A small number of questionnaires were completed by the heads of settings with no eligible two-year-olds at the time of the survey.

Figure 6.1: Impact of the expansion of funded ELC and the costs crisis on support offered to families of children in the setting

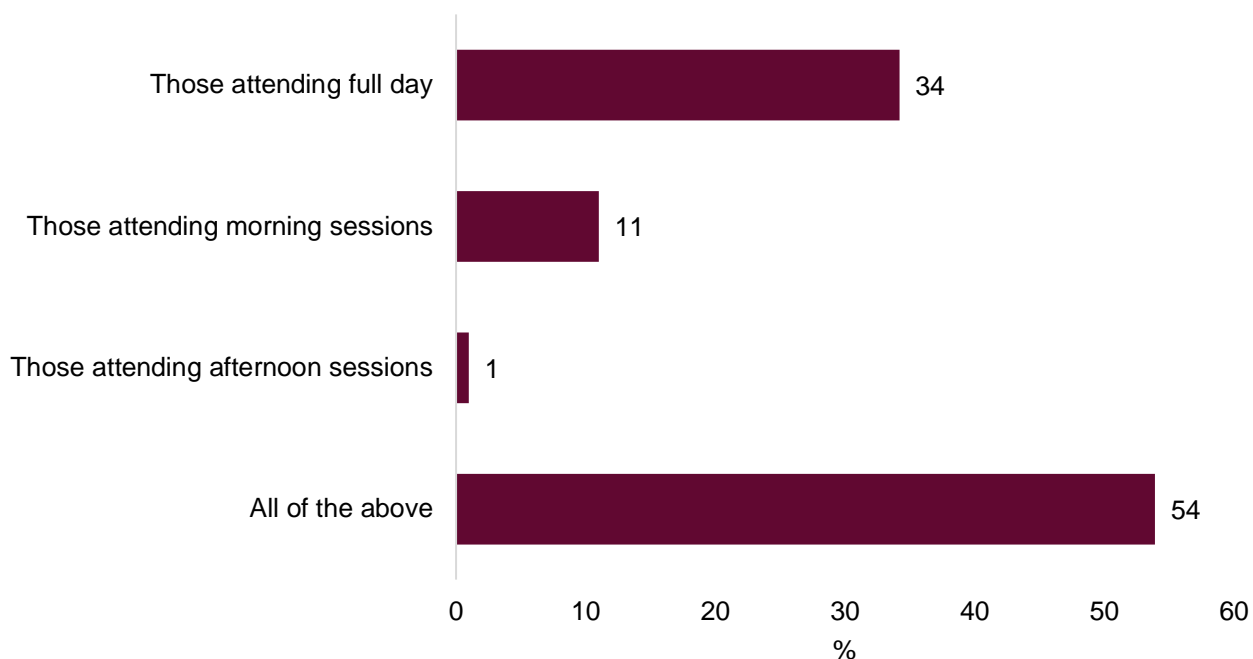


Base: All respondents (setting head questionnaire, Phase 4, weighted)

6.2 Food provision

Setting managers were asked what meals they provided as part of their funded provision, post-expansion. Almost all (98%) settings provided lunch and the majority also provided a morning (87%) or afternoon snack (84%). Just over a third of managers reported providing breakfast (35%) and 19% an early evening meal. Where settings reported providing lunch, managers were asked who was offered lunch as part of funded provision (see Figure 6.2). Over half (54%) said that children who attended morning or afternoon sessions or the full day were all offered lunch. Settings were also asked which meals were offered as optional extras that parents could pay for. The vast majority (89%) said that no such meals were provided and that all meals were provided as part of their funded provision.

Figure 6.2: Which children are offered lunch as part of their funded provision



Base: All settings where lunch is offered as part of funded provision (setting heads questionnaire, Phase 4, weighted)

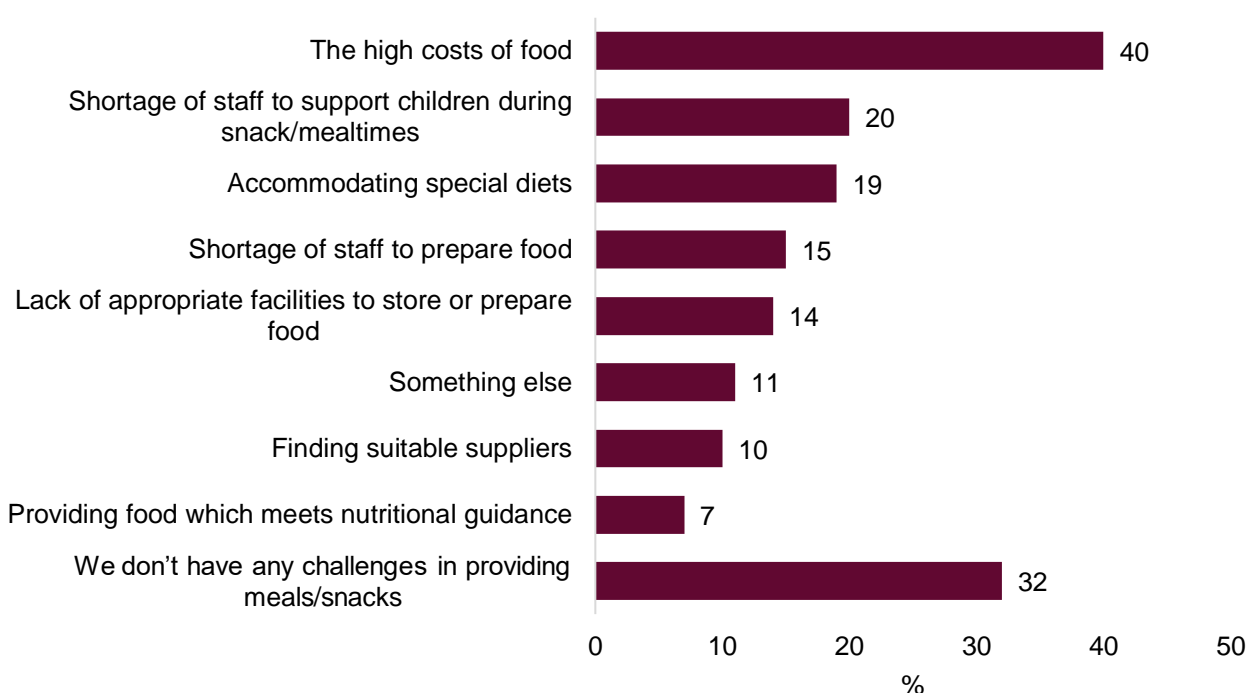
Fifty-eight percent of setting managers reported consulting with parents on meals and snacks. Of those who did, the most common method of consultation was verbal feedback gathered at parent events and meetings (73%). As well as this method, 54% of settings who consulted parents on meals and snacks said they used online or email surveys/feedback questionnaires, 30% used paper surveys/feedback questionnaires posted out or sent home with children, and 12% used paper survey/feedback questionnaires at parent events and meetings.

Setting managers were asked how easy it is to cater to special diets and to provide meals that meet nutritional guidance. The majority (85%) said it was very or fairly easy to cater for special diets with only 8% saying it was very/fairly difficult. Similarly, almost all settings (92%) said it was very/fairly easy to provide meals that met the guidance, with only 2% saying it was difficult.

To explore the main challenges in providing meals in ELC settings, setting managers were shown a list of perceived potential challenges and asked to pick up to three that they considered affected their setting (see Figure 6.3). Around two-thirds (68%) of setting managers mentioned experiencing at least one challenge whilst 32% said they didn't have any challenges in providing meals and snacks in their setting. The most commonly mentioned challenge was the high cost of food (40%), followed by a shortage of staff to support children during snack/mealtimes (20%) and accommodating special diets (19%).

The most common response given by those who said they faced "something else" as a challenge was lack of flexibility in choices of snacks and meals as their food comes from their local authority.

Figure 6.3: Challenges faced by ELC settings in providing meals



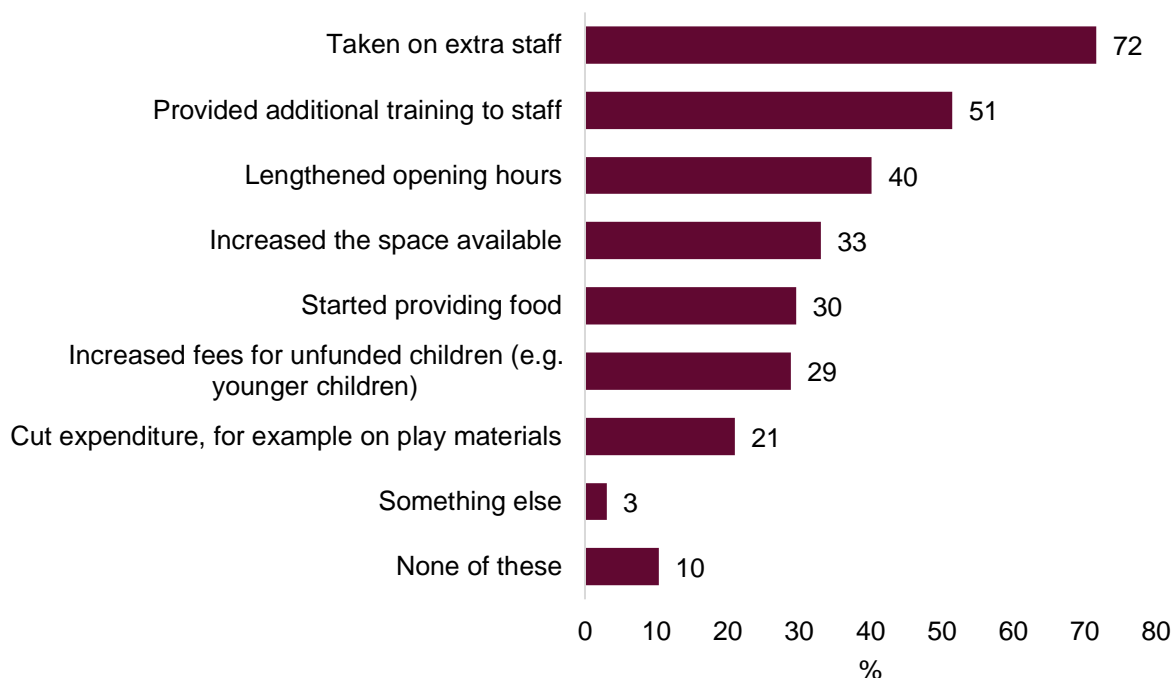
Base: All respondents (setting head questionnaire, Phase 4, weighted)

Managers in settings that offered breakfast and lunch pre- and post-expansion were asked whether they felt the expansion had led to any changes in the quality of food provided. The vast majority (82%) said the expansion did not lead to any changes in the quality of food that they provide whilst 14% said it led to them providing higher quality food for the children. Only 3% said it had resulted in lower quality food. These setting managers were also asked whether the costs crisis had impacted the quality of the food that they offer. Over three-quarters (77%) said that the costs crisis had not had an impact on the quality of food provided by the setting, while similar proportions thought it had led to higher quality and lower quality food for the children (both 12%).

6.3 Activities done and challenges faced by settings in relation to the expansion

Setting managers were asked what their setting had done in order to meet the requirements of the ELC expansion (see Figure 6.4). The most common activities chosen related to staffing with almost three-quarters of settings (72%) taking on extra staff and half (51%) providing additional training to staff. In addition, 40% of settings had lengthened opening hours and a third (33%) had increased the space available.

Figure 6.4: Things settings have done to meet requirements of ELC expansion

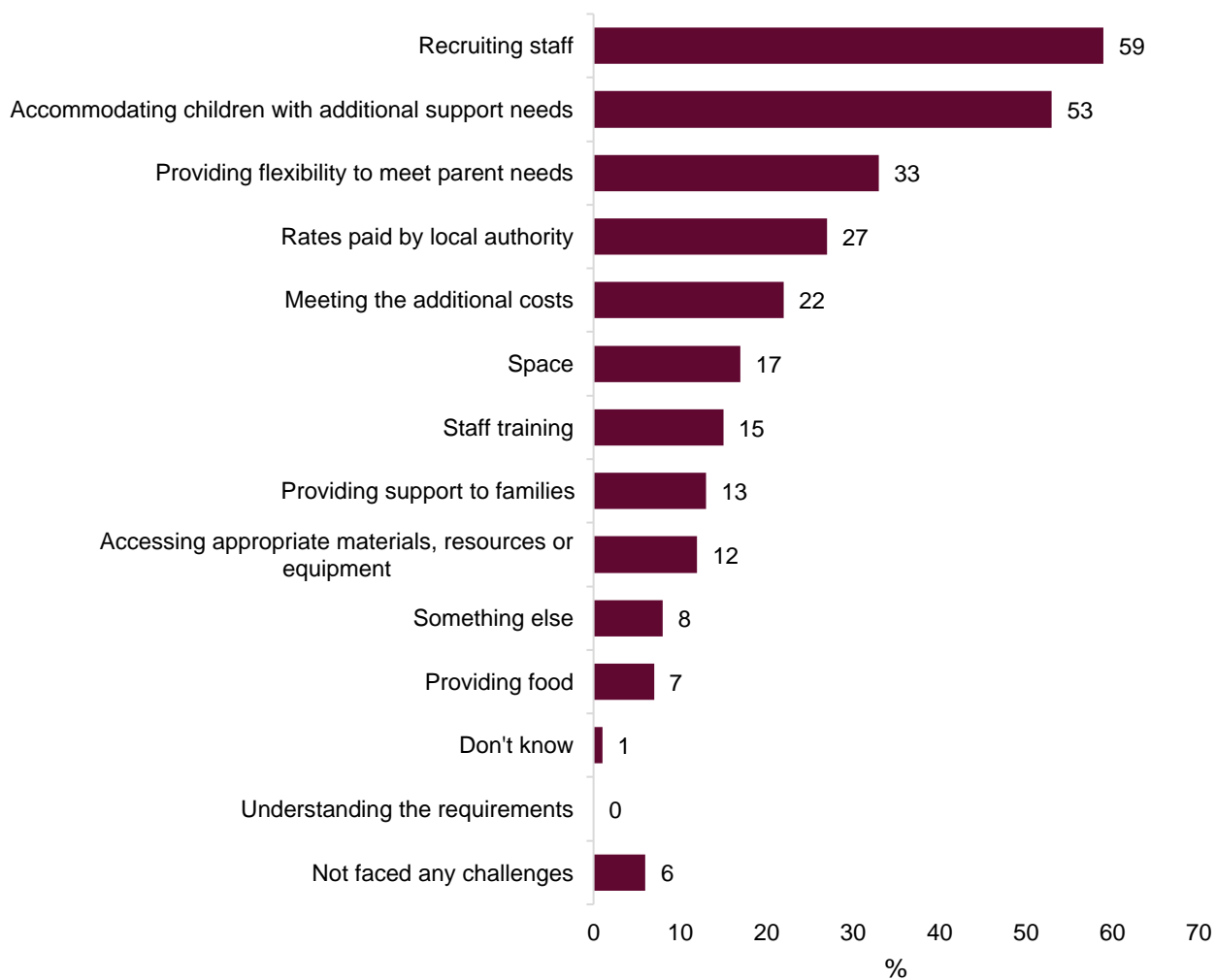


Base: All respondents (setting head questionnaire, Phase 4, weighted)

Setting managers were then asked to select up to three main challenges that they had faced in meeting the requirements of the expansion (see Figure 6.5). Most (94%) setting managers reported facing at least one challenge. The three challenges most commonly mentioned were recruiting staff (59%), accommodating children with additional support needs (53%) and providing flexibility to meet parent needs (33%).

Themes to emerge among those setting managers who reported “something else” as a challenge were challenges associated with recruiting suitable/ good quality staff, and difficulties finding time for all staff to be together due to shift patterns and annual leave.

Figure 6.5: Challenges faced in meeting the requirements of the ELC expansion



Base: All respondents (setting head questionnaire, Phase 4, weighted)

7. Characteristics of ELC

To gather information on the characteristics of ELC settings, inspectors from the Care Inspectorate (acting as observers independent of their regulatory roles) conducted observations of 149 settings using the most recent version of the Infant / Toddler Environment Rating Scale (ITERS-3).

ITERS-3 was used for a number of reasons: it centres on the experience of the child in the setting; it allows for the effect of setting quality on child outcomes to be controlled for; and it is relatively easy to administer given that only one three-hour observation is required. The tool can also be used to determine if particular setting characteristics contribute to differential outcomes in children. Furthermore, ITERS-3 is designed for use in settings where most children are under 36 months and as such, it was deemed suitable for use with the eligible two-year-olds involved in Phase 4 of the SSELC.

It is important to note that these tools are not the only method of assessing setting quality in Scotland. Indeed, the Care Inspectorate ratings provide a broader measure of the quality of practice and policy within settings that have also been found to be related to children's outcomes in Scotland.³³ Further, all ELC providers are required to demonstrate that they meet the [National Standard for ELC Providers](#) before they can access funding to deliver the funded hours, whether they are in the public, private or voluntary sectors. Care Inspectorate ratings form key quality criteria within the National Standard. Local authorities are responsible for assessing and monitoring compliance with the National Standard.

As with the Care Inspectorate inspection methodology, the setting observations focused on outcomes. However, the methodology differed in that the ITERS-3 tool was used to observe for three hours, with no consultation with setting staff and no professional dialogue or explicit feedback provided. This was because the observations were intended to be a snapshot to inform the study and control for variation in child outcome data, rather than serving as an assessment of an individual setting's quality. During the ITERS-3 observations, observers looked at the six domains specifically for two-year-olds. In contrast, during a formal inspection, Care Inspectorate inspectors consider a range of areas that impact on experiences for all children attending the setting, not just those in specific age groups. The key areas covered during a formal inspection are likely to include some or all of the domain areas but can also cover other aspects of the provision to evaluate the overall quality of the setting.

The ITERS-3 scale comprises 33 items across six different subscales: space and furnishings; personal care routines; language and books; activities; interaction, and programme structure. More details of the scale are included in Appendix C.

³³ Care Inspectorate, [A quality framework for daycare of children, childminding and school-aged childcare](#) (2022).

7.1 Background data on settings collected during observation

In addition to the main indicators, background data was collected during observations on the structure of the setting. This included: the number of children and staff present at the time of observation; whether there was a dedicated room for two-year-olds; and whether there was “freeflow” access to outdoor space.³⁴

More than half (56%) of the settings had a dedicated room for two-year-olds. On the day of observations, 32% had no more than five children of this age, while 31% had between six and eight two-year-olds, and the remaining 37% had nine or more. A third of settings (33%) had no more than eight children of all ages, 34% had between nine and 15, 19% had between 16 and 29, and 14% had 30 or more.

Almost all of the settings had access to outdoor space (99%), and this was free-flow in 56% of the settings.

7.2 ITERS data on ELC settings

Table 7.1 summarises scores on each of the ITERS-3 subscales from 1 to 7: 1 (inadequate), 3 (minimal), 5 (good), and 7 (excellent).

Table 7.1: Percentage of settings with score 1 to 7 by ITERS-3 subscale

ITERS sub-scale		1 < 2	2 < 3	3 < 4	4 < 5	5 < 6	6 < 7	7	Unweighted base
Space and Furnishings	%	1	2	7	17	44	27	1	149
Personal Care Routines	%	1	3	10	22	33	28	3	149
Languages and Books	%	1	6	13	26	36	16	3	149
Activities	%	7	28	36	19	8	3	-	149
Interaction	%	1	4	6	11	33	36	9	149
Programme Structure	%	1	6	7	11	18	30	26	149

Base: All settings observed (Phase 4, unweighted)

Note: Settings’ mean score for each subscale was categorised based on the highest score fully achieved e.g. if a setting scored 4.5 for the Space and Furnishings subscale, they would be categorised as ‘4 < 5’ rather than rounding up to 5. This decision was made in consultation with academic colleagues and the Care Inspectorate.

Settings scored highest on the interaction subscale, with 78% of settings scoring 5 or above. Most settings also scored 5 or above on the programme structure (74%), the space and furnishings (72%) and the personal care routines (64%) subscales. It should be noted however, with a maximum possible score of 7 on each item, an average score of 5 indicates room for improvement on multiple items within the scale. On the activities subscale, no settings scored the maximum 7. Of the other

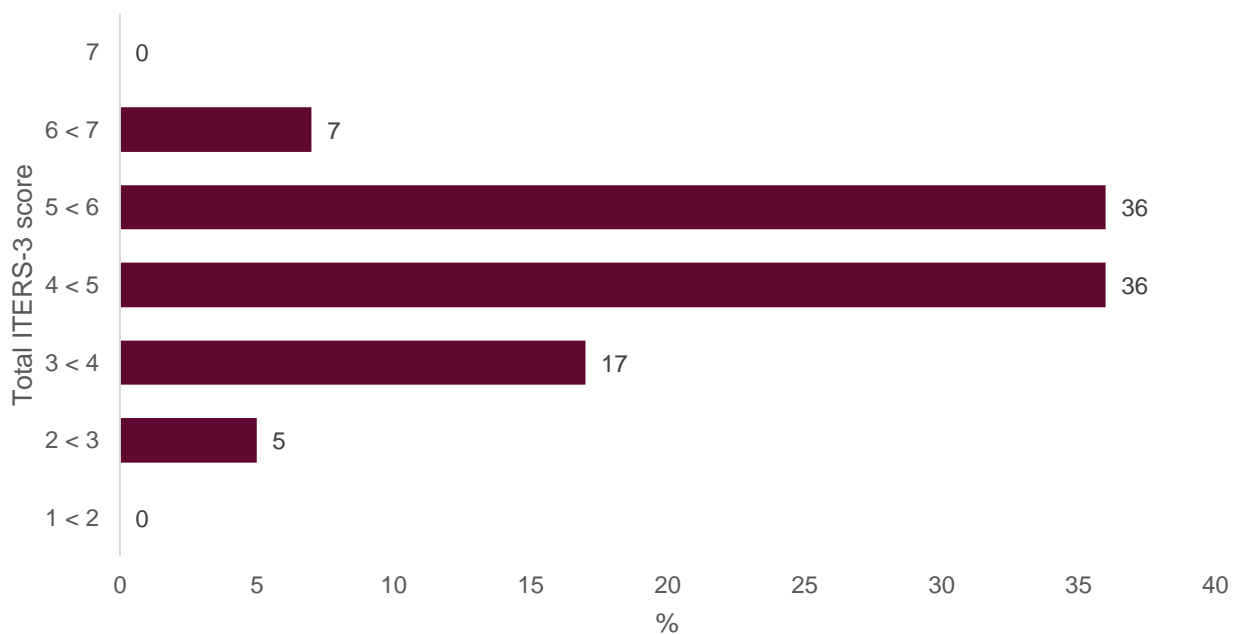
³⁴ Freeflow play allows children to move freely indoors and outdoors as they please.

scales, the highest proportion achieving the maximum - indicating “excellent” on all items - was 26% for programme structure.

Scores were weakest on the activities scale, with only 11% of settings scoring 5 or above and 34% scoring below 3. Meanwhile, close to half (45%) of the settings scored below 5 for languages and books.

A summary of the total scores is provided in Figure 7.1. None of the settings achieved a total score of 7. However, 43% scored five or above, with most of the settings scoring either between 4 < 5 or 5 < 6 (36% each). Only 5% of settings had a total score of below 3.

Figure 7.1: Total ITERS-3 score



Base: All settings observed (Phase 4, unweighted)

Only top-level analysis of the ITERS-3 data has been conducted for this report. Future analysis will consider associations between setting and characteristics and child outcomes.

8. Summary and conclusions

Background to the Study

This report was based on findings from Phase 4 of the Scottish Study of Early Learning and Childcare, which focused on two-year-old children accessing funded ELC. This is the first of the post-expansion phases of the study, with children now receiving up to 1140 hours of funded ELC each year.

The data reflect the experiences of a particular group of children and their families: those accessing funded ELC at age two. They are not representative of all children accessing ELC at that age, many of whom do not receive funded placements. Most children accessing funded ELC at age two come from households that meet the statutory eligibility criteria, which themselves are a proxy for socio-economic disadvantage.

The data were collected for a number of purposes, including to provide a nationally representative picture of both child and parent outcomes associated with this cohort of eligible two-year-olds. The same children will be followed up towards the end of 2024, to see how things have changed for them and their families following a year of funded ELC. Over the same period as covered by all six phases of the SSELC, many families will have experienced difficulties caused by the Covid-19 pandemic and the cost of living crisis. Subsequent reports will attempt to tease out the effects of the expansion from other impacts upon these families.

A new element to the study was introduced in this phase – a survey of setting heads. This was intended to help fill gaps in our knowledge about the services provided to families by ELC settings, as well as giving setting heads the opportunity to feedback on their experiences of the expansion. The findings from this have provided valuable insights which will feed into the overall evaluation of the expansion of funded ELC in Scotland, and will be used to inform Scottish Government policy in an ongoing way.

Characteristics of the Phase 4 sample

The data collected from parents confirm that the families of children accessing funded ELC at age two are not typical of all families. Around half of the households were among those in the lowest equivalised income decile. Four in ten lived in areas identified as among the most deprived 20% according to the Scottish Index of Multiple Deprivation. Each of these factors are known to be key determinants of poorer child outcomes.

The vast majority of parent respondents were women, with four in five indicating they were the child's main carer and most of the rest that caring was shared equally with someone else in the household. More than half were single parent households.

Use of ELC

Nearly all of the parents reported using just the one provider of formal ELC. Most also used only the funded hours. A small number paid for additional hours of ELC,

although this only increased the average hours attended by one. Around a third of the families did not appear to take all of their entitlement, attending for fewer than 22 hours per week.

Around one in five parents used another form of childcare in addition to the setting where they received funded ELC. In most cases this was informal, the most common arrangement being with grandparents. This use of additional childcare was more common among those with higher incomes and those living in less-deprived areas, potentially because of the need to cover work hours. A much broader range of childcare, mostly informal, was used before the child reached the age of two and became eligible for funded ELC. Again, the largest proportion was grandparents.

Most parents engaged with the ELC setting, although the extent of that engagement varied. Most parents had discussed their child's progress with setting staff. Just over a third said they had received advice or information about how to support their child's speech, language and communication development, and the same proportion mentioned talking to someone about how to support their child's learning at home. Some parents also mentioned receiving other forms of support for the family more generally, which can be crucial for low income or potentially vulnerable households. This included help with food or clothing, wider family support, such as for relationships, employability, help with welfare rights or benefits. The percentages receiving these types of support were much lower than the proportion of settings reported by their heads to offer them.

Parents could generally see the advantages of having a child in ELC. The large majority thought it was good for the child in many ways, including their interactions with other children and adults, the boost to their independence / confidence, their educational development, and simply that they enjoy it. Around three-quarters also mentioned it being good for parents in that it enabled them to work. Two-thirds mentioned no disadvantages of having a child in ELC, although some mentioned ELC hours not being long enough to allow time to work, or that children may be unhappy or pick up bad habits/behaviour.

Child health and development

The SSELC was designed to examine a number of different children's outcomes, including social, emotional and behavioural development, cognitive and language development. It also asked about physical and mental health and wellbeing, as well as a number of risk factors known to be associated with these.

While the majority of parents had no concerns, parental concerns about how a child spoke or what they understood were higher for boys than for girls, and higher in the most deprived areas than in other areas. Some of those whose parents had concerns were receiving support for speech and language development at the funded ELC setting, although half were not.

The main measures of child development included in the SSELC were the Ages and Stages Questionnaire (ASQ) and the Strengths and Difficulties Questionnaire

(SDQ). These are commonly used assessment tools both in Scotland and internationally.

The ASQ comprises five domains, covering communication, gross motor skills, fine motor skills, problem solving and personal-social. On each of these domains, fewer than half the children were assessed as “on schedule”. This is lower than would be expected for a nationally representative sample of two-year-olds. On four of the five domains (the exception being the gross motor skills domain), girls were more likely to be on schedule than boys. On the communication, fine motor skills and personal-social domains, boys living in deprived areas were much less likely to be on schedule than girls, or boys in other areas.

Comparing parental concerns about communication with scores on the ASQ communication domain, it is clear that many parents are aware of issues that are picked up by these assessments. However, there are also a number of children whose parents are not concerned, but the ASQ assessment suggests there is an issue with communication.

The SDQ also comprises five domains: emotional symptoms, conduct problems, hyperactivity, peer problems and prosocial behaviour. The first four of these can be combined to form a total difficulties score. On the first two of these domains, the proportion deemed “close to average” was similar to or slightly below what might be expected from a nationally representative population of two-year-olds. On the other three domains the proportion close to average was much lower. For the total difficulties score, 40% were in the close to average range, around half of what may be expected for the whole population. With the exception of the emotional symptoms domain, girls tended to exhibit fewer difficulties than boys. As with the ASQ, it was boys in deprived areas who were the most likely to have difficulties.

Parent and family outcomes

Supporting parents to take up or maintain work, education or training was one of the intended outcomes of the expansion of ELC. However, it was recognised that many parents of eligible two-year-olds would need time and support after their children started to receive funded ELC to reach the point of being able to find employment. The surveys of parents of eligible two-year-olds took place within the first few months of the children starting their funded placement.

Around two in five of respondents to the parent survey (who were mostly women) were in employment, with the majority of these working fewer than 30 hours a week (31% of all respondents), and only 9% working full-time. Survey respondents’ partners (mostly men) were much more likely to be in full-time employment (51%), with a further 13% in part-time employment. Small numbers of parents mentioned that having their child in ELC had allowed them to increase their hours at work, while others had entered or re-entered education.

Parents living in deprived areas were less likely than those in other areas to be in work, education or training. This was more noticeable for two-parent households, although figures for single parent households in all areas were lower.

Respondents who were in employment worked for an average of 20.5 hours a week. This was higher in two-parent households where childcare might be shared between parents, than in single parent households.

The hours when a child is in funded ELC have allowed parents to do many other things, beyond work and education. Four in five reported being able to think about what they may do in the future, while two-thirds said they have been feeling less stressed. A third had been able to take steps that may lead to work at some point in the future, by studying or improving work-related skills.

Levels of wellbeing across the adult population have taken a downturn in recent years, with the Covid-19 pandemic and resultant lockdowns and the cost of living crisis having a major part to play in this. The latest available figures show that population wellbeing levels have not returned to pre-pandemic levels.³⁵ Untangling the effects of this from the effects of the expansion of ELC is not simple. Subsequent reports will aim to tackle this issue more comprehensively, to get a clearer picture of the effect of the expansion on parental wellbeing.

Most parents reported coping well as parents for much of the time, but there were a small number who said that they were not. For the benefit of both them and their children, it is important that nurseries are able to offer the kind of support mentioned earlier to these families. Nearly a third said they did not get enough or did not get any support with childcare from friends and family. These families are likely to rely more heavily on formal ELC provision than other households do.

In general, girls were more likely than boys to do frequent learning activities at home with their parents, be that looking at books, drawing, or reciting nursery rhymes. Again there were some, both boys and girls, who never looked at a book at home.

Views of setting managers

The setting heads questionnaire was a new element of the study for Phase 4. It showed that settings were providing a lot of support to all families, rather than it being targeted at eligible two-year-olds. Support for parenting concerns, support to aid the child's learning at home, and support for speech and language development or for other additional support needs were routinely offered in nearly all settings. Other types of support were also offered, albeit less commonly. These included provision of food or clothing, advice on benefits, and the opportunities to learn a new skill or develop skills to help find employment.

The expansion of ELC had clearly affected the services provided to families in many settings, with more than half of setting heads agreeing that as a result of the expansion they were now providing a broader range of services, and nearly half saying they spent more time working with families and that they worked more

³⁵ See the Scottish Health Survey 2022 report, which uses the full version of the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) to monitor levels of wellbeing across the population: [The Scottish Health Survey 2022 – volume 1: main report - gov.scot \(www.gov.scot\)](https://www.gov.scot/resources/consultations-petitions-and-statements/scottish-health-survey-2022-main-report/)

closely with families. The survey also showed that the cost of living crisis had affected the services provided in much the same ways.

With the expansion came the expectation that settings would provide food for children that met nutritional guidance. Almost all (98%) of settings provided lunch and the majority also provided a morning or afternoon snack. The main challenge regarding this was the high cost of food, mentioned by two in five setting heads, although nearly all setting heads did not believe there was any deterioration in the quality of food provided following the expansion.

Many settings had made changes as a result of the expansion, with nearly three-quarters taking on extra staff. A substantial minority had lengthened their opening hours. Nearly a third had had to increase fees for unfunded children and one in five had cut expenditure, for example on play materials. The main challenges in meeting the demands of the expansion, mentioned by more than half the setting heads, were recruiting new staff and accommodating children with additional support needs.

In summary, some parents reported they have found time to take up employment, even in the short period since their child started funded ELC. The development of many children within this group of eligible two-year-olds was assessed as needing further monitoring or assessment at the outset of funded ELC, and some parents may struggle to provide them with support at home. However the expansion has enabled many nurseries to improve the services they can offer families, and it is important to make sure that these services reach all the families that need them.

Appendix A – SSEL partnership

The Scottish Study of Early Learning and Childcare, although led by the Scottish Government, is a collaborative research project that has drawn on the invaluable expertise of a number of individuals and organisations throughout Scotland and beyond, including:

Local Authority Early Years Leads

Care Inspectorate

Early Years Scotland

Education Scotland

National Day Nursery Association

Public Health Scotland

Scottish Childminding Association

Professor Aline-Wendy Dunlop, University of Strathclyde

Professor Alison Koslowski, UCL

Professor James Law, University of Newcastle

Professor James Lewsey, University of Glasgow

Dr Louise Marryat, University of Dundee

Dr Christine Stephen, University of Stirling

Dr Sandra Mathers, Oxford University

Appendix B – Methodology

Aims

Phase 4 of the SSELC had multiple aims. Firstly, it was designed to provide robust, nationally-representative data on a number of specific child and parent outcomes for those aged between two years and two years six months who were receiving 1140 hours of funded ELC. It was also intended to collect information about the household circumstances of these children, childcare use, the socio-economic characteristics of the family and a range of additional circumstances, experiences and behaviours known to be associated with child outcomes.

Secondly, it was intended to provide baseline data for these children and to allow for the same children to be followed up one year later. This will allow for the identification of how much progress these children have made following a year of funded ELC.

Thirdly, it was intended to ensure that data from a subsample of these children was comparable with data from children who took part at Phase 1 of the study, in order to provide a pre- and post-expansion comparison. Note that Phase 1 of the study, covering children aged between two years and two years six months who were receiving 600 hours of funded ELC for the year, was not nationally representative, being conducted in only 17 local authority areas.

Finally, it was intended to gather information from setting heads about their opinions of the expansion of ELC and how easy or difficult it had been to meet the requirements.

Sampling

A sample of children aged between two years and two years six months with a funded ELC place in Scotland was drawn via a two stage process. First, a stratified sample of ELC settings was drawn. For larger settings, a second stage was involved. If there were more than 10 eligible children at the setting, a sample of 10 children was drawn by setting staff from those eligible. The large majority of settings had no more than 10 eligible children. In these cases all eligible children at the setting were invited to take part.

Selection of settings

A systematic sample of 315 ELC settings was drawn, stratified by local authority (LA) and two deprivation groups (ELC settings in the most deprived 20% of areas, based on SIMD, vs the rest). Some local authorities were too small to allow for stratification by deprivation group, so settings were ordered by deprivation group and setting size before selection. To give all eligible children an equal chance of being selected, all settings were also given equal selection probabilities, except for those more than 10 eligible children. These were given a proportionately higher probability of selection. Settings that opted out were excluded.

A list of all ELC group settings in Scotland³⁶ with eligible two-year-olds was provided by the Scottish Government and local authorities, including various figures for the number of eligible two-year-olds at each setting. Some figures were for the current year, and some for the current term. Provisional figures were available for some settings, additional to confirmed attendance. Only capacity figures for 2023 were available for some settings, although 2022 enrolment figures were available for each of these. A model was used to estimate 2023 attendance in these settings based on 2023 capacity figures.

Figures provided were for all eligible two-year-olds, rather than just those aged two years to two years six months. The number of eligible children aged two years to two years six months at each setting was estimated combining all this information, including an adjustment to bring the total for each LA into better alignment with published local authority figures for the total number of eligible two-year-olds attending in September 2022.

Reserve samples

A reserve sample of 63 settings was also drawn using the same method, in case there were a larger number than expected of settings with no eligible children / otherwise unable to take part identified before the start of the fieldwork period. This was only used for three local authorities: Dundee, Orkney, and Shetland.

It was initially unknown whether East Dunbartonshire would participate in the survey, so another small reserve sample was selected to replace settings from that LA if need be, consisting of 7 settings drawn from all other local authorities. Ultimately East Dunbartonshire did not participate, so those settings were removed from the initial sample and replaced with this small reserve sample.

Population figures and setting sample sizes by strata

Local authority	Deprivation group	Settings with eligible two-year-olds	Total estimated eligible two-year-olds attending ³⁷	Issued sample (number of settings) ³⁸
Aberdeen City Council	Less deprived	22	147.4	7
Aberdeen City Council	Most deprived	4	81.6	2
Aberdeenshire Council		48	144.0	16
Angus Council	Less deprived	18	102.6	6
Angus Council	Most deprived	4	28.4	1

³⁶ Not including childminders

³⁷ All eligible two-year-olds, not just those aged two years to two years six months

³⁸ Includes reserve sample issued in Orkney, Shetland and Dundee to ensure adequate coverage across all LAs. Also includes 14 settings which withdrew before questionnaires were despatched.

Local authority	Deprivation group	Settings with eligible two-year-olds	Total estimated eligible two-year-olds attending	Issued sample (number of settings)
Argyll & Bute Council		23	85.0	8
Clackmannanshire Council	Less deprived	8	78.8	3
Clackmannanshire Council	Most deprived	7	72.2	2
Dumfries & Galloway Council	Less deprived	36	145.2	12
Dumfries & Galloway Council	Most deprived	9	46.8	3
Dundee City Council	Less deprived	20	172.6	8
Dundee City Council	Most deprived	12	107.4	5
East Ayrshire Council	Less deprived	11	165.8	4
East Ayrshire Council	Most deprived	13	189.2	5
East Lothian Council		9	50.0	3
East Renfrewshire Council		6	62.0	2
Edinburgh City Council	Less deprived	27	263.7	10
Edinburgh City Council	Most deprived	11	296.3	6
Falkirk Council	Less deprived	7	149.7	3
Falkirk Council	Most deprived	4	59.7	2
Fife Council	Less deprived	34	307	12
Fife Council	Most deprived	21	259.2	7
Glasgow City Council	Less deprived	56	369.8	20
Glasgow City Council	Most deprived	67	594.2	22
Highland Council	Less deprived	36	134.4	12
Highland Council	Most deprived	4	69.6	2
Inverclyde Council	Less deprived	6	76.2	2
Inverclyde Council	Most deprived	5	74.8	2
Midlothian Council		29	174	10
Moray Council		17	87.0	6

Local authority	Deprivation group	Settings with eligible two-year-olds	Total estimated eligible two-year-olds attending	Issued sample (number of settings)
Na h-Eileanan Siar Council		4	29.0	2
North Ayrshire Council	Less deprived	8	59.5	3
North Ayrshire Council	Most deprived	12	123.5	4
North Lanarkshire Council	Less deprived	34	202.0	12
North Lanarkshire Council	Most deprived	22	192.0	7
Orkney Islands Council		7	19.5	3
Perth & Kinross Council		28	181.0	9
Renfrewshire Council	Less deprived	19	108.3	7
Renfrewshire Council	Most deprived	21	188.7	7
Scottish Borders Council	Less deprived	30	84.6	10
Scottish Borders Council	Most deprived	4	28.5	2
Shetland Islands Council		7	13.0	3
South Ayrshire Council	Less deprived	21	89.2	7
South Ayrshire Council	Most deprived	6	68.8	2
South Lanarkshire Council	Less deprived	26	262.6	9
South Lanarkshire Council	Most deprived	14	193.4	5
Stirling Council	Less deprived	14	45.7	5
Stirling Council	Most deprived	6	57.4	2
West Dunbartonshire Council	Less deprived	6	68.1	2
West Dunbartonshire Council	Most deprived	6	118.9	3
West Lothian Council	Less deprived	25	143.6	9
West Lothian Council	Most deprived	9	68.4	3
All		923	7019	319

Data collection

Data were gathered on children in the cohort via two methods: a survey of parents/carers; and a survey of the children's ELC keyworkers (primarily to measure child development). Data about the settings were also collected, by a short online questionnaire for setting heads and observations of ELC settings attended by sampled children carried out by Care Inspectorate inspectors.³⁹

Parents were recruited by ELC staff and provided with information about the study before being asked to complete a paper self-administered questionnaire that collected a wide range of information about themselves, their child and their household. Parents were also asked for their permission for the child's keyworker to complete a questionnaire about the child's development. This largely consisted of the Ages and Stages (ASQ) and Strengths and Difficulties (SDQ)⁴⁰ questionnaires but also collected administrative information, including the number of hours the child attended the ELC setting in the previous week and whether the child had Additional Support Needs. Parents and setting heads were also informed of the intention to follow up on the children in 2024, and contact details were collected in the parent questionnaire for this purpose only.

The setting heads questionnaire was new for Phase 4 of the study. It asked about support provided by the setting to families of eligible two-year-olds, rather than about specific children. It also asked about food provision by the setting and about challenges faced in relation to the expansion.

Response rates to the surveys are not easy to estimate because information about the exact number of eligible children within each setting was not available (see section on Sampling above). Of the 315 settings sampled, 14 were withdrawn by the local authority before the start of fieldwork due to, for example, concerns about other pressures on the settings. Four of these were replaced with settings from a reserve sample to ensure reasonable coverage in all of the 31 local authorities which agreed to participate. Twenty five settings informed ScotCen that they were unable to take part, including six who refused, mainly because of the burden on staff, nine who had no eligible children, and 10 for whom no reason was recorded. A further 126 settings did not participate. The proportion of these that were eligible is not known. At least one questionnaire (keyworker or parent) was returned from 152 settings. A total of 341 completed questionnaires were received from parents and 495 from keyworkers. Nine keyworker questionnaires were removed from the data as it was not clear from the information provided by the settings that the parents were aware that the questionnaires were being completed. This gave a total of 328 paired questionnaires. As a rough estimate, the response rate for the parent questionnaire was 29%, for the keyworker questionnaire was 41% and for

³⁹ Note that inspectors were acting as observers and not in their regulatory capacity, and used a different tool in their observations than would be used for a formal quality grading.

⁴⁰ Further information on these instruments is provided in Appendix C.

both was 27%.⁴¹ The setting heads' questionnaire was completed by 157 setting heads.

Observations were conducted of 149 participating ELC settings using the Infant and Toddler Environment Rating Scale (ITERS-3). This is a widely recognised and highly regarded instrument designed for use in settings where most children are aged under 36 months. It provides an observational measure of the quality of ELC settings for pre-school children across six domains: space and furnishings, personal care routines, language and literacy, learning activities, interaction and programme structure, as well as other observations around numbers of children and staff and access to outdoor space.

Observations were conducted by Care Inspectorate staff seconded to the study and involved a single visit lasting between 2 and 3 hours. It was emphasised to ELC setting managers and staff before and during these observations that they were not formal inspections of the kind routinely undertaken by the Care Inspectorate.

Data analysis and statistical significance

Data analysis has been conducted using the complex samples package of SPSS version 29. Using this, the clustering of children within settings can be taken into account, without the need to use multi-level models. All analysis uses weighted data for Phase 4, except where discussing the characteristics of the cohort or the characteristics of the settings. Different weights were applied, depending on the variables included in the analysis (see section on Weighting below). Tests for statistical significance have been conducted through the use of regression analysis, and all differences between subgroups at Phase 4 discussed within the text are statistically significant unless otherwise stated.

For the significance tests, categorical outcome variables have been reduced to binary variables, so that logistic regression analysis can be used. For example, ASQ scores have been reduced to "on schedule" / "not on schedule", as whether the child is on schedule with their development is the outcome of interest. This allows us to say that girls were more likely to be on schedule for the communication domain. Conducting a chi-square test using all categories of the ASQ variable would only allow us to say that there was an association between ASQ score and sex, with girls tending to do better. It also allows multiple independent variables to be included in the modelling, so relationships between ASQ scores and sex / area deprivation can be tested. For continuous outcome variables, such as SWEMWBS score, linear regression was used.

Weighting

Weights are commonly applied to survey data so that the achieved sample better represents the population it was drawn from. Groups that are under-represented in the achieved sample are given higher weights than those that are over-

⁴¹ A very rough estimate used for sampling suggested 1196 children in the sampled settings were eligible.

represented, with the aim of weighted data matching the population distribution by key characteristics. Survey estimates produced using the weighted data should then be closer to estimates that would have been gained from the whole population of interest.

As Phase 4 included multiple questionnaires, three sets of weights have been produced. These are for analysis of: setting head responses, keyworker responses and parent responses. The same basic weighting approach was used for all three sets of weights, with specific modifications where required. The approach was consistent with the weighting of Phases 2 and 3 of the project.

The basic weighting approach consisted of two elements: selection weighting and non-response modelling. The first stage adjusted for differential probability of selection (for settings and children) resulting from the sample design. The second stage adjusted for differences in the profiles of sampled and responding settings, using logistic regression modelling. Calibration weighting, which adjusts the profile of the weights to match estimates of the population, could not be used due to the absence of detailed population estimates for eligible two-year-olds.

Further details of the methods used to produce each set of weights are provided in the subsections below.

Setting Head Weights

Setting head weights were created for the 157 settings where a head responded. Only one setting head response was allowed from each setting. First, selection weights for the settings were created from the inverse selection probability during sampling. Second, a setting-level logistic regression model was run, weighted by the selection weight. The outcome for this model was response from the setting head and the covariates included were SIMD quintiles, setting type (LA or private/voluntary/non-profit), and size band. Non-response weights were calculated as the reciprocal of the propensity to respond estimated from this model. Finally, the non-response weights were combined with the setting selection weights and checked for outliers. No outlying weights required trimming. The design effect of the final setting head weights is 1.17 and the efficiency 86%.

Keyworker Weights

Keyworker weights were created for 486 keyworker responses. Up to 10 keyworker responses from each setting were allowed. First, selection weights for the settings were created from the inverse selection probability of each setting during sampling. Second, a setting-level logistic regression model was run, weighted by the selection weight. The outcome for this model was any keyworker responses from the setting and the covariates included were SIMD quintiles, setting type (LA or private/voluntary/non-profit), and size band. Non-response weights were calculated for the 146 settings with keyworker responses as the reciprocal of the propensity to respond estimated from this model. Third, the setting-level non-response weights were combined with the setting selection weights and matched onto the 486 keyworker responses.

As the final step, child selection weights were calculated to adjust for children's differential probability of selection between settings. These were calculated from the inverse of number of children selected per setting (if recorded on the response sheet) or number of children sampled (if not available from the response sheet) divided by estimated eligible children at the setting. The setting-level weights were combined with the child selection weights and checked for outliers. The two top weights were trimmed to improve efficiency. The design effect of the final keyworker weights is 1.46 and the efficiency 69%.

Parent Weights

Parent weights were created for 341 parent responses. Up to 10 parent responses from each setting were allowed. First, selection weights for the settings were created from the inverse selection probability of each setting during sampling. Second, a setting-level logistic regression model was run, weighted by the selection weight. The outcome for this model was any parent responses from the setting and the covariates included were SIMD quintiles, setting type (LA or private/voluntary/non-profit), and size band. Non-response weights were calculated for the 137 settings with parent responses as the reciprocal of the propensity to respond estimated from this model. The non-response weights were checked for outliers and the top two cases trimmed.

As the third step, setting-level non-response weights were combined with the setting selection weights and matched onto the 341 parent responses. Finally, child selection weights were calculated to adjust for children's differential probability of selection between settings. These were calculated from the inverse of number of children selected per setting (if recorded on the response sheet) or number of children sampled (if not available from the response sheet) divided by estimated eligible children at the setting. The setting-level weights were combined with the child selection weights and checked for outliers. The top weight was trimmed to improve efficiency. The design effect of the final parent weights is 1.52 and the efficiency 66%.

Appendix C – Details of data collection instruments

Ages and Stages Questionnaire (ASQ)

The Ages and Stages Questionnaire was administered as part of the keyworker observations.

Both the ASQ and SDQ questionnaires are widely used by Health Visitors across Scotland as part of their health reviews of pre-school children – the Child Health Programme.⁴² These questionnaires were also selected for inclusion in the Child Health Programme following an extensive review by academics and practitioners.⁴³

The ASQ is a structured assessment of a range of developmental domains to identify children at increased risk of developmental difficulties.⁴⁴ The instrument includes 30 items split into five different domains: communication, gross motor, fine motor, problem solving and personal-social. The respondent indicates whether or not the child can complete the action or provide the response required by answering “yes”, “sometimes” or “no”. Each domain produces a summary score which can be used to indicate whether the child's development is on schedule, needs monitoring or requires further assessment. Whilst it is designed to be completed by parents, it was deemed suitable for completion by the child's keyworker at their ELC setting because it is informed by observation of the child.

Strengths and Difficulties Questionnaire (SDQ)

The Strengths and Difficulties Questionnaire was administered as part of the keyworker observations.

The SDQ is a commonly used behavioural screening questionnaire designed for use with children aged between four and 16. An adapted version is used for children aged two to four.⁴⁵ The questionnaire includes 25 questions about a child's behaviour to which the respondent can answer “not true”, “somewhat true” or “certainly true”. Responses can be combined to form five different measures of the child's development, namely emotional symptoms (e.g. excessive worrying), conduct problems (e.g. often fighting with other children), hyperactivity / inattention (for example, constantly fidgeting), peer relationship problems (e.g. not having close friends), and prosocial behaviour (e.g. being kind to others). In addition, the first four measures can be combined into a “total difficulties” scale. Higher scores imply greater evidence of difficulties on each of the scales, with the exception of the

⁴² Scottish Government (2012) The Scottish Child Health Programme: Guidance on the 27-30 month child health review, Edinburgh: Scottish Government.

⁴³ Bedford, H., Walton, S., Ahn, J. (2013). Measures of Child Development: A review, London: Centre for Paediatric Epidemiology and Biostatistics, UCL Institute of Child Health.

⁴⁴ See [Ages and Stages Questionnaire \(agesandstages.com\)](http://agesandstages.com)

⁴⁵ See [Strengths and Difficulties Questionnaire \(sdqinfo.org\)](http://sdqinfo.org)

prosocial behaviour scale where the reverse is true. In this report, recommended banded versions of the scales have been used to create the following categories: “close to average”, “slightly raised”, “high” and “very high”, with “very high” indicating multiple difficulties identified.⁴⁶

Shortform Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS)

The short form of the Warwick-Edinburgh Mental Wellbeing Scale is a commonly used series of questions intended to measure wellbeing. Respondents are presented with seven statements about positive feelings and thoughts, and asked how frequently they have experienced them over the previous two weeks.

The scale is created by summing the frequency of responses for all seven items, with a score of 1 for “none of the time” and a score of 5 for “all of the time”. This provides a score of between 7 and 35. In order to make the data comparable with other surveys, the scores have to be “Rasch-transformed”.

Cut offs to determine “high” and “low” wellbeing can be identified from population norms. High wellbeing is defined as the top 15% of scores, in the range from 27.5 to 35.0, and low wellbeing as the bottom 15%, in the range from 7.0 to 19.5.

Details of the scoring are available from the [WEMWBS website](#).

Home learning environment scale

Four items were used to create the home learning environment scale. These each related to the number of days on which certain activities between the child and parent were conducted. The scale was created by summing the number of days on which each of the four activities had occurred in the last week.

Cut offs to determine quartiles were created using data from Phase 1 of the study. This allows for comparison between phases. The bottom quartile included scores in the range 0 to 15, the second in the range 16 to 20, the third in the range 21 to 24, and the top in the range 25 to 28.

Parent-child warmth scale

The parent-child warmth scale used in the SSELC comprises the seven items that form the warmth dimension of the short form of the Mothers’ Object Relations Scale (MORS-SF). Details of the scale are available from the [MORS website](#).

Each item was scored from 1 to 5, with 1 being “None of the time” and 5 “All of the time”. Summing the seven items created a scale from 7 to 35. Three groups were created of roughly equal size, based on Phase 1 responses. Because of the skewed nature of the data, the bottom tertile (a score of 7 to 31) should not be

⁴⁶ Goodman R (1997) The Strengths and Difficulties Questionnaire: A Research Note. *Journal of Child Psychology and Psychiatry*, **38**, 581-586.

interpreted as “low warmth”, as many of the respondents in this group would have answered “often” or “all of the time” to each of the statements. The middle tertile was for a score of 32 to 34 and the top tertile a score of 35.

Confusion, Hubbub and Order Scale

To form the scale, the first two items shown in Figure 4.10 were scored 1 to 5, with 1 being “strongly disagree” and 5 being “strongly agree”; the other two items were scored 1 to 5 in the reverse order, with 1 being strongly agree and 5 strongly disagree. The sum of the four items created a scale from 4 to 20, with higher values indicating more chaotic households. Tertiles were based on Phase 2 of the study, where the sample was representative of households with a four- or five-year-old child receiving funded ELC.

Infant / Toddler Environment Rating Scale (ITERS-3)

To gather information on the characteristics of ELC settings, inspectors from the Care Inspectorate (acting as observers independent of their regulatory roles) conducted observations of 149 settings using the most recent version of the Infant / Toddler Environment Rating Scale (ITERS-3). The ITERS-3 was developed in the United States by the Environment Rating Scale Institute along with the Early Childhood Environment Rating Scale (ECERS). Both scales are widely used in English speaking countries. In the United Kingdom, ECERS has been used in both the Effective Provision of Pre-School Education (EPPE) study and in the more recent Study of Early Education and Development (SEED) in England⁴⁷. In Scotland, ECERS was used as long ago as 1994⁴⁸ and has seen many applications since that time.

Both environment rating scales have a positive international reputation as a way of assessing the quality of provision in a snap-shot observation and as a tool which gives researchers access to the everyday experiences of children in their ELC settings. The scales have high reliability at indicator and item level when used by trained observers⁴⁹. Validity is also high in terms of their relationship to other ways of assessing quality and to measures of children's outcomes. Further, in conjunction with academics and the Care Inspectorate, some minor amendments were made to ensure that the ITERS-3 was reflective of the aspects of quality that are expected in Scotland (e.g. that rainfall should not prevent outdoor play).

ITERS-3 was used for a number of reasons: it centres on the experience of the child in the setting; it allows for the effect of setting quality on child outcomes to be controlled for; and it is relatively easy to administer given that only one three-hour observation is required. The tool can also be used to determine if particular setting

⁴⁷ See Melhuish, E. & Gardiner, J. (2018) Study of Early Education and Development (SEED): [Impact study on early education use and child outcomes up to age four years \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/728487/seed-impact-study-on-early-education-use-and-child-outcomes-up-to-age-four-years.pdf)

⁴⁸ Stephen, C. and Wilkinson, J.E. (1995) “Assessing the Quality of Provision in Community Nurseries”, *Early Child Development and Care*. 108: 83-98.

⁴⁹ Care Inspectorate staff attended training with academic colleagues on how to use the ITERS-3 and completed their first observation in pairs to ensure consistency of scoring.

characteristics contribute to differential outcomes in children. Furthermore, ITERS-3 is designed for use in settings where most children are under 36 months and as such, it was deemed suitable for use with the eligible two-year-olds involved in Phase 4 of the SSELC. Although many settings observed did not have a specific two-year-old room, using ITERS-3 allowed for age-appropriate criteria to be observed.

It is important to note that these tools are not the only method of assessing setting quality in Scotland. Indeed, the Care Inspectorate ratings provide a broader measure of the quality of practice and policy within settings that have also been found to be related to children's outcomes in Scotland.⁵⁰

As with the Care Inspectorate inspection methodology, the setting observations focused on outcomes. However, the methodology differed in that the ITERS-3 tool was used to observe for three hours, with no consultation with setting staff and no professional dialogue or explicit feedback provided. This was because the observations were intended to be a snapshot to inform the study and control for variation in child outcome data, rather than serving as an assessment of an individual setting's quality. During the ITERS-3 observations, observers looked at the six domains specifically for two-year-olds. In contrast, during a formal inspection, Care Inspectorate inspectors consider a range of areas that impact on experiences for all children attending the setting, not just those in specific age groups. The key areas covered during a formal inspection are likely to include some or all of the domain areas but can also cover other aspects of the provision to evaluate the overall quality of the setting.

The ITERS-3 scale comprises 33 items across six different subscales: space and furnishings; personal care routines; language and books; activities; interaction, and programme structure.

- Space and furnishings include observation of indoor space; furnishings for care, play, and learning; room arrangement; and display for children.
- Personal care routines include observation of meals and snacks; toileting; health practices; and safety practices.
- Language and books include observation of talking with children; encouraging vocabulary development; responding to children's communication; encouraging children to communicate; staff use of books with children; and encouraging children's use of books.
- Activities includes observation of fine motor; art; music and movement; blocks; dramatic play; nature and science; maths and number; appropriate use of technology; promoting acceptance of diversity; and gross motor.
- Interaction includes observation of supervision of gross motor play; supervision of non-gross motor play and learning; peer interaction; staff-child

⁵⁰ Care Inspectorate, [A quality framework for daycare of children, childminding and school-aged childcare](#) (2022).

interaction; providing physical warmth and touch; and guiding children's behaviour.

- Programme structure includes observation of schedule and transitions; free play; and group play activities.

In line with ITERS-3 guidance, each subscale is scored from 1 to 7. These scores are calculated by averaging the score for each item within the subscale. Each of the 33 items are also scored from 1 to 7. These scores are calculated using the indicators contained within each individual item. Indicators are grouped under scores of 1 (inadequate), 3 (minimal), 5 (good), and 7 (excellent), with each indicator providing an example of what should be observed relevant to each score. Indicators themselves are scored as yes or no depending on whether the indicator has been observed. In some cases, observers are able to record indicators or items as not applicable; these are then excluded when calculating item or subscale scores. A score of 1 is given if any indicator grouped under 1 is scored yes. For an item to score a 7, each indicator grouped under 7 must be scored yes.

How to access background or source data

The data collected for this social research publication:

- are available in more detail through Scottish Neighbourhood Statistics
- are available via an alternative route
- may be made available on request, subject to consideration of legal and ethical factors. Please contact socialresearch@gov.scot for further information
- cannot be made available by Scottish Government for further analysis as Scottish Government is not the data controller.



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This document is also available from our website at www.gov.scot.
ISBN: 978-1-83601-617-5

The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

Produced for
the Scottish Government
by APS Group Scotland
PPDAS1489258 (08/24)
Published by
the Scottish Government,
August 2024



Social Research series
ISSN 2045-6964
ISBN 978-1-83601-617-5

Web Publication
www.gov.scot/socialresearch

PPDAS1489258 (08/24)