NHS Health Scotland

Evaluability assessment of the expansion of early learning and childcare

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Contents

1. Introduction 2
2. Theory of change and model of potential beneficiaries 4
3. Evaluation aims and questions 8
4. Recommended evaluation approach and programme phasing 13
5. Proposed evaluation studies 16
6. Proposed background tasks 24
7. Summary of EA recommendations 27
Appendix 1: Assumptions, unintended consequences and external factors 29
Appendix 2: Short-term evaluation study design options 33
References 43

1. Introduction

1.1 Funded early learning and childcare (ELC) policy in Scotland

The Scottish Government is in the process of implementing a staged programme of expansion of funded early learning and childcare (ELC) for all 3- and 4-year-olds, and those 2-year-olds who stand to benefit the most. The first stage of this expansion took place in August 2014 with the implementation of the Children and Young People (Scotland) Act 2014.[1] The 2014 Act increased the offer from 475 funded hours per year to 600 hours, and widened the eligibility criteria to reach more 2-year-olds. Government has now committed to expanding the offer further, to 1140 hours by August 2020.

NHS Health Scotland has undertaken an evaluability assessment of the expansion programme to inform the development of an evaluation framework.

1.2 Evaluability assessment (EA) process

An evaluability assessment (EA) is a systematic approach to prioritising and planning evaluation projects. The process usually involves the following:

- Structured engagement with stakeholders to clarify the intervention or policy goals and how they are expected to be achieved.
- Development and appraisal of a theory of change, which describes how implementation of a policy contributes to change in longer-term outcomes, via change in a series of linked short- and medium-term outcomes. It also identifies:
    - the assumptions which underpin the theory
    - possible unintended consequences of implementing a policy
    - the external factors which will impact on successful implementation and achievement of the intended outcomes.
- Development of evaluation priorities and questions.

- Assessment of existing data sources and data gaps, and consideration of evaluation options.
- Provision of advice on whether an evaluation can be carried out at reasonable cost, or whether further development work on the intervention should be completed first.

This paper will present:

- the theory of change developed for the expansion programme and the model of potential beneficiaries
- the evaluation aims and questions developed with Scottish Government and some stakeholders
- recommendations on the overall evaluation approach, including a suggested study portfolio, study phasing, and further developmental work to inform the evaluation design.

2. Theory of change and model of potential beneficiaries

The theory of change was developed over the course of two workshops with key stakeholders. It sets out how the policy expansion is expected to contribute to desired outcomes (Figures 1 and 2). Appendix 1 describes the assumptions which underpin the theory of change, potential unintended consequences of implementing the expansion programme, and the plausible external factors which could impact on both implementation of the policy and achievement of the intended outcomes.

To inform the EA, further work was undertaken to model the most plausible impact of expansion across different beneficiary groups (Figure 3). Four potential beneficiary groups were identified, based on a spectrum of families' current use of ELC, and the plausible impacts on these groups were based on our current understanding of the evidence.

In the case of funded ELC expansion, the extent of outcome change in beneficiaries will be influenced by the extent of change in their use of ELC post-expansion. Therefore it is likely that the expansion of funded ELC will result in variations in outcomes across different groups of children and parents. This has implications for the design of any evaluation of the policy's impact on outcomes.

Figure 1: Outcomes for children

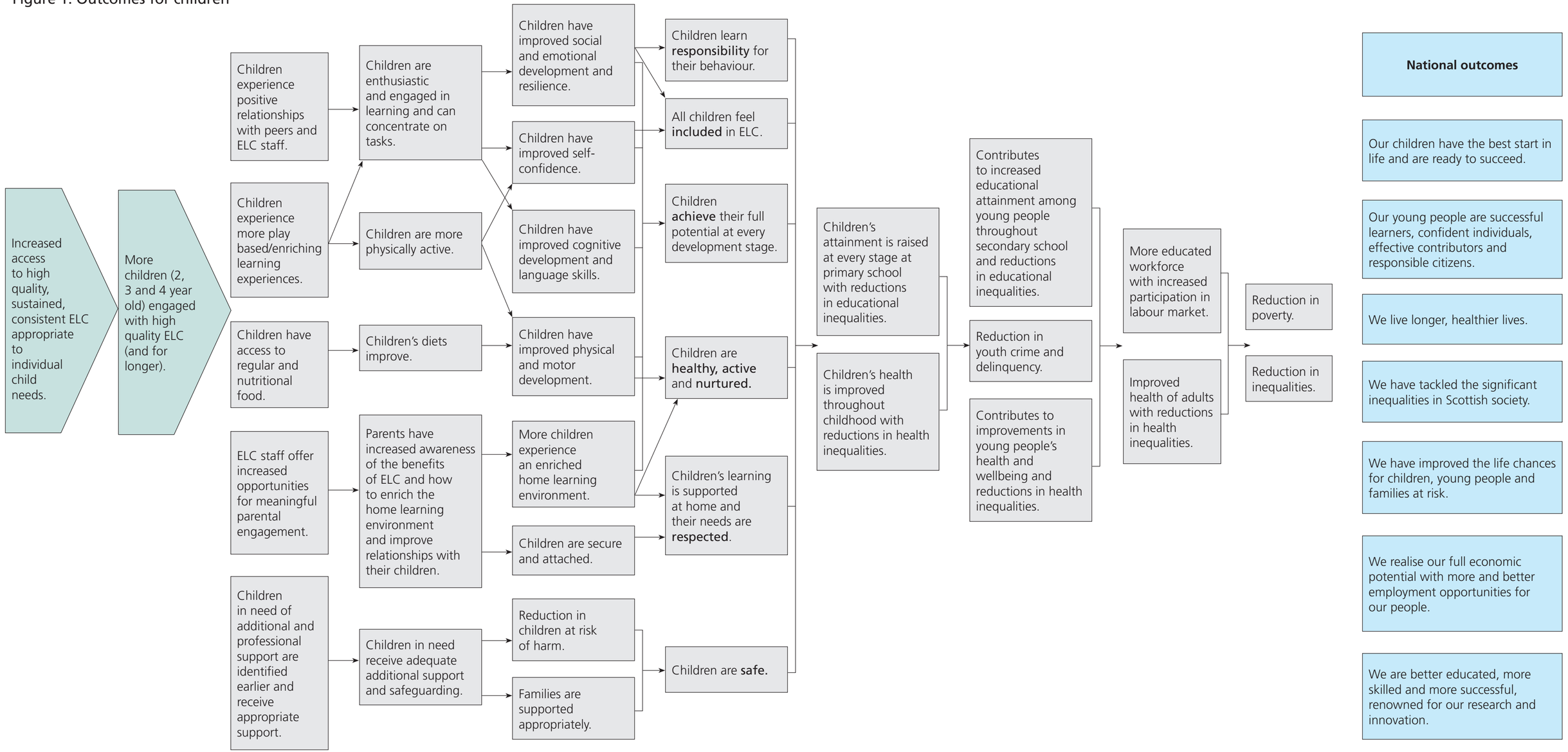


Figure 2: Outcomes for parents

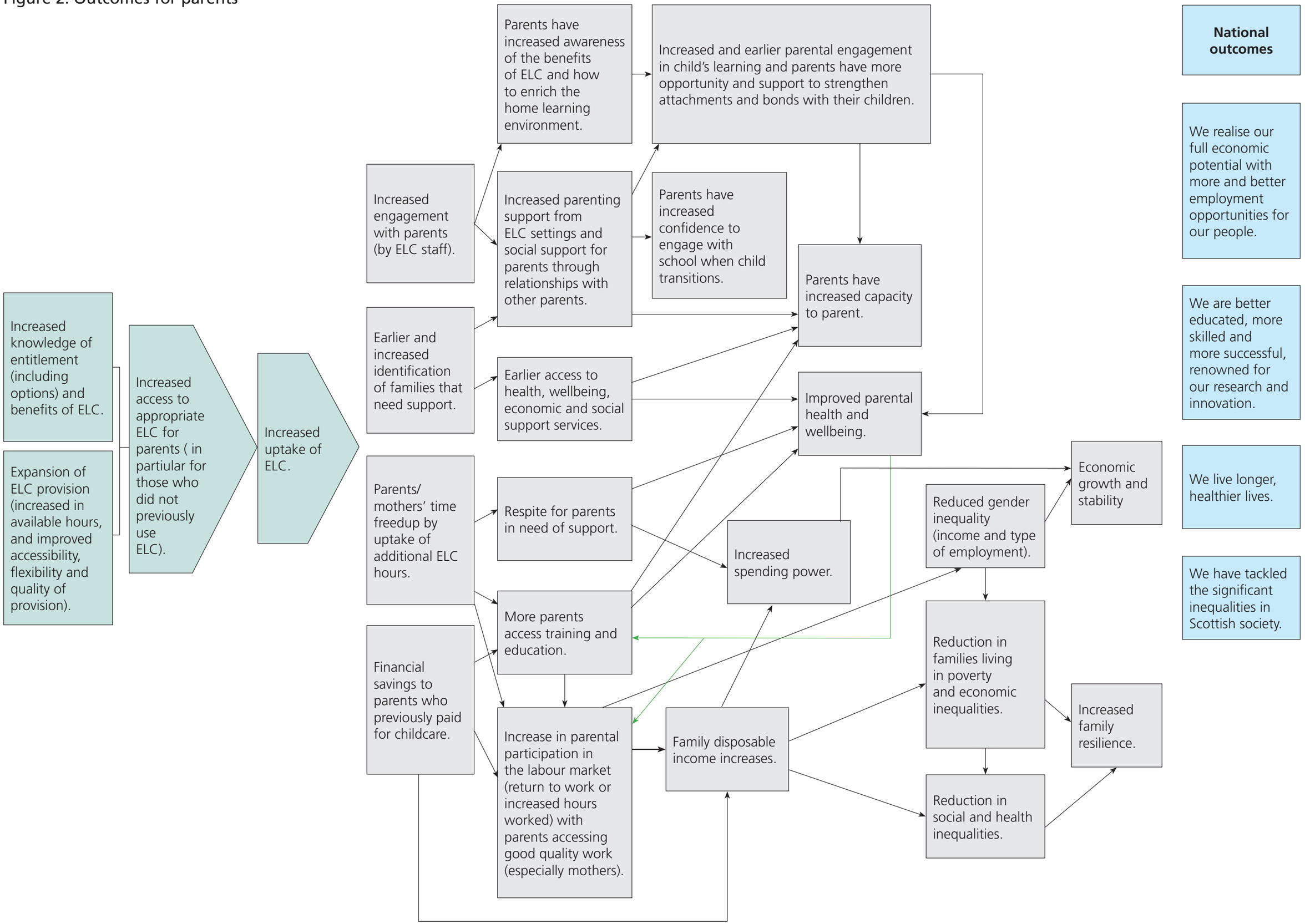
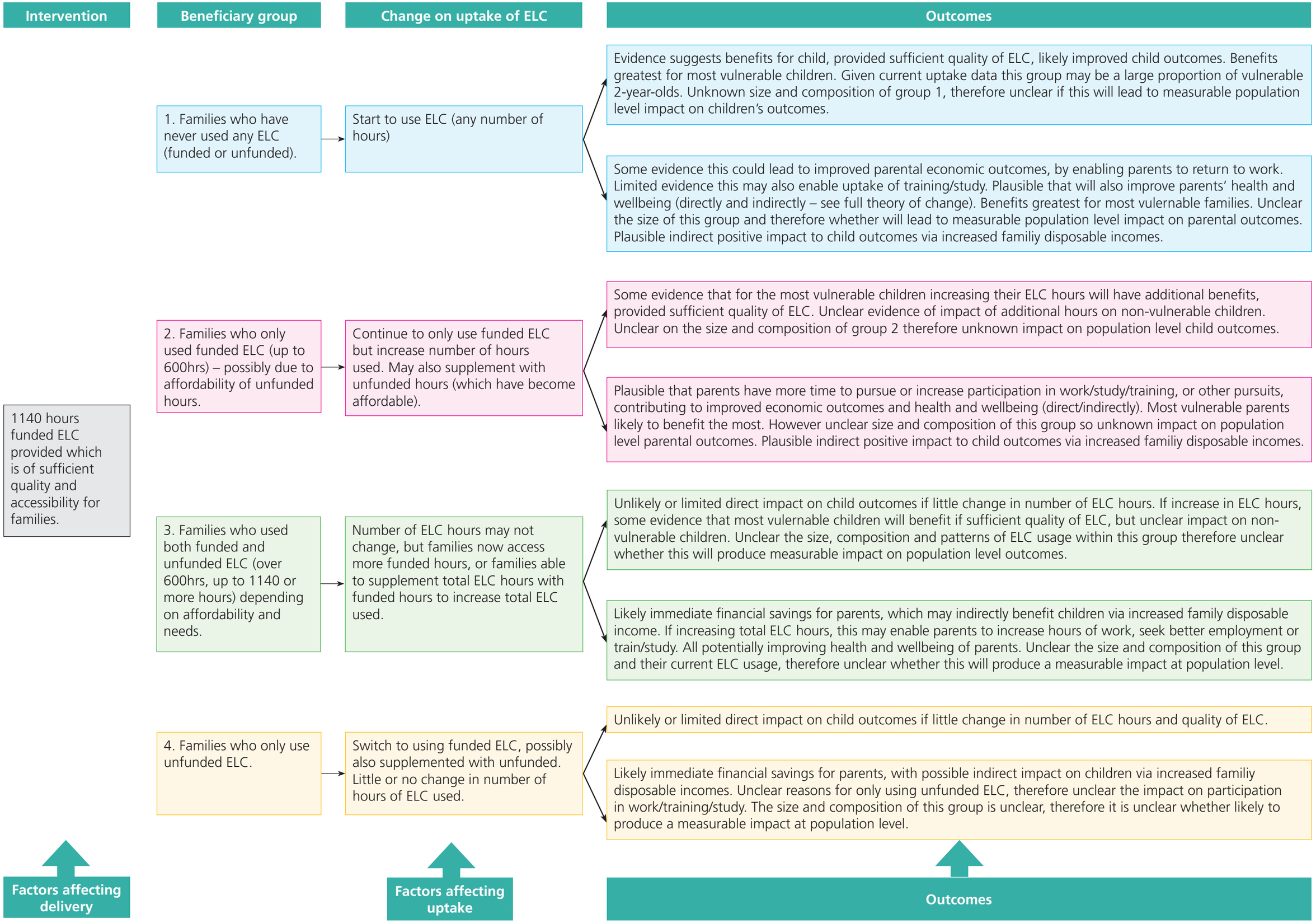


Figure 3: Model of potential beneficiaries



3. Evaluation aims and questions

Based on the theory of change and following consultation with the Scottish Government and a selection of stakeholders, the following evaluation aims and questions were identified.

3.1 Aims of the evaluation

- Assess the impact of the expansion of early learning and childcare (ELC) on improving outcomes and reducing the attainment gap for eligible children from the most and least deprived areas in Scotland.
- Assess the impact of the expansion of ELC on parents and families, including a focus on changes in take-up of employment, training or further education, especially on mothers.
- Assess the extent to which the expansion has delivered on quality, accessibility, flexibility and affordability across all local authorities in Scotland.
- Provide learning to improve the implementation of the expansion and to maximise the intended impact for children and families by considering what has and has not worked well in the governance and process of implementing the expansion of ELC.

3.2 Evaluation questions

The explicit evaluation questions would therefore be as follows:

1. **What impact has the expansion of ELC had on raising attainment overall and on closing the attainment gap at school?**
    a) What impact has the expansion of ELC had on children's development, in particular cognitive and language skills, at entry to primary 1?
    b) What impact has the expansion of ELC had on reducing the poverty-related development gap, in particular cognitive and language skills, among children at entry to primary 1?
    c) Are these impacts sustained in the longer term as children age?

2. **What impact has the expansion of ELC had on children's wider development and wellbeing?**
    a) What impact has the expansion of ELC had on children's social, behavioural and emotional development at entry to primary 1?
    b) What impact has the expansion of ELC had on reducing the poverty-related social, behavioural and emotional development gap among children at entry to primary 1?
    c) What impact has the expansion of ELC had on children's physical health and wellbeing at entry to primary 1 and on health inequalities?
    d) Are these impacts sustained in the longer term as children age?
    e) What impact has the expansion had on children's experience of ELC?

3. **What impact has the expansion of ELC had on parents' economic participation?**
    a) What impact has the expansion of ELC had on parents' ability to work, train or study and why (with a particular focus on the most disadvantaged parents)?
    b) How does this vary by demographic group and geographically?
    c) What are the other factors which may facilitate or act as barriers to parents' ability to work, train or study?
    d) What has the financial impact of the expansion of ELC been for families, and does this vary across demographic groups?

4. **What wider impact has the expansion of ELC had on parents and family life and is there variation across demographic groups?**
    a) What impact has the expansion of ELC had on parental health and wellbeing?
    b) What impact has the expansion of ELC had on the home learning environment that parents provide?
    c) What impact has the expansion of ELC had on parent–child relationships, in particular bonding and attachment?

d) What other impacts has the expansion of ELC had on parents and families?

5. What impact has ELC expansion had on uptake of ELC?

a) How has the uptake of ELC changed with the expansion?
b) How does uptake vary by age of child, geographically and by demographic group? (Consider especially the most disadvantaged families, such as low-income, LAC, lone parents, BME families, families who have a child with an additional support need, and so on.)

6. What impact has ELC expansion had on quality of ELC, in particular the aspects of quality that are linked to improving child development? (Further work will be needed to agree a shared definition of quality ELC.)

a) How has the quality (specifically the aspects linked to improving child development) of ELC changed since expansion?
b) Is there variation over time, by type of setting and/or geography?
c) If quality has been improved/maintained, how has this been achieved?
d) What changes/improvements have been made to ensure that children access quality experiences and outcomes appropriate for their stage of learning?
e) To what extent have changes/improvements been based on evidence of what works?
f) Which changes were most effective and what were the challenges?

7. What impact has ELC expansion had on accessibility and flexibility of ELC?

a) How have the patterns of funded ELC offered changed following the expansion?
b) How have local authorities consulted with parents, responded to these consultations and evaluated the changes they have put in place?
c) What are the barriers and facilitators for providing more accessible, in particular flexible, funded ELC for local authorities and services, and

what have been the consequences of increased flexibility? What learning can be shared?

d) How has the expansion been communicated to families, and what learning can be taken from this?
e) What are the barriers and facilitators to uptake (of full entitlement) for different groups? What impact do these have on equity of access?
f) Do parents, in particular for those living in the most deprived and in rural areas, perceive that ELC is becoming more accessible, in particular flexible, and meeting their needs? If not, what are the main issues perceived by parents and how do these change over time?

8. What impact has the ELC expansion had on the affordability of both funded and unfunded ELC for different stakeholders?

a) What has been the impact of the different models of funding provision used by local authorities on local authorities, parents and partner providers?
b) Which local authority models have demonstrated greatest value for money for local authority finances? What are local authority perceptions of a cost/quality trade-off and how to balance these? (It will be necessary to undertake further work to define best value.)
c) What has been the impact on the affordability of overall childcare costs for parents, in particular the most disadvantaged families?

9. What impact has the expansion of ELC had on the ELC sector in Scotland?

a) What has the financial impact of the expansion of ELC been for providers (both local authorities and partner providers)? Does this vary geographically? (Consider unit costs for providing ELC, sustainability of partner providers, and so on.)
b) What has the financial impact been on non-partner providers and the overall composition of the ELC sector in Scotland?
c) What impact has the policy had on the capacity of the ELC sectors for eligible 2-, 3- and 4-year-olds, and non-eligible places for under 3-year-olds?

d) What impact has the policy had on the composition of staff teams (e.g. staff demographics, qualifications, staff turnover) by setting and geographically and on staff working conditions?
e) Has the additional graduate commitment been delivered?
f) What other impact/unintended consequences has the expansion had on/for the ELC sector?

10. How might implementation and governance of the policy be improved to improve outcomes for children and families?

a) What learning can be identified from how local authorities have implemented the expansion of ELC in terms of models and funding arrangements, working with local stakeholders and partner providers, communication and consultation with parents, and improving the quality of ELC?
b) What worked well/less well in the national governance and support for local authorities in the implementation of this programme? Were the funding arrangements between SG and local authorities adequate to support the aims of the programme? How could these be improved?
c) To what extent do wider stakeholders understand, engage and further support the aims of the expansion?

4. Recommended evaluation approach and programme phasing

4.1 Recommendation 1: Governance

We recommend that a distinct Evaluation Advisory Group is convened to lead the development, design and delivery of the evaluation studies.

Given the scale of the monitoring and evaluation programme, the further developmental work recommended, and the critical appraisal of evaluation design required, the formation of a distinct Evaluation Advisory Group is recommended to lead the development, design and delivery of the evaluation studies. This group should include representation from the ELC Strategic Evidence Group and Scottish Government, evaluation expertise and relevant academics/researchers as appropriate.

4.2 Recommendation 2: Theory-based evaluation

We recommend a theory-based evaluation approach is taken for the expansion of funded ELC.[2] [3]

A theory-based approach is advocated for the evaluation of national programmes where there is limited scope for an experimental design, there is large variation in how a programme is implemented, and outcomes are often long-term.

Using a theory-based approach, it can be concluded that a programme has contributed to desired long-term outcomes if:

- there is a plausible 'theory of change' that shows how the activities in the programme link to the outcomes identified, via outcomes chains
- it can be demonstrated that the activities were implemented in a way likely to achieve the outcomes

- evidence is gathered which supports the theory of change (i.e. demonstrates the sequence of expected results/change in outcomes is being realised)
- external factors influencing outcomes have been assessed and accounted for.[2]

4.3 Recommendation 3: Evaluation phasing and priorities

We recommend, as a minimum, that the evaluation programme prioritise the following:

1. Assess the impact of the ELC expansion programme on the following key outcomes:
    a. Children's development (cognitive, physical, social and emotional) at the end of ELC/entry to primary 1.
    b. Maternal/parental employment.
2. Undertake a process evaluation for both the 600 hours and 1140 hours expansions, to identify learning to improve policy implementation and to better understand any unintended consequences of the policy on the ELC sector and local authorities.
3. Assess and monitor change in the following determinants of the key outcomes:
    a. Accessibility, flexibility and affordability of ELC for parents: key determinants of a parent's decision to take up the offer of funded hours.
    b. Uptake of ELC: the policy will only impact on outcomes if parents take up the funded hours, and any variation in uptake may in turn lead to variation in observed outcomes for children and parents.
    c. Quality of ELC: evidence suggests that the quality of ELC provided is the key determinant of benefits for children.
4. Explore options for undertaking a value-for-money or cost–benefit analysis of the expansion programme.

The evaluation programme will be limited by the feasibility of measuring and observing change in outcomes through the different phases of the expansion programme. The prioritisation and phasing of an evaluation programme should be informed by these limitations.

We recommend that in the short term the evaluation programme be limited to evaluation questions 5–10, with longer-term studies evaluating the policy's impact on outcomes for children and parents (questions 1–4).

We further recommend that in the short term, the evaluation programme considers a number of pieces of developmental work. These are considered necessary in order to inform decisions around the most appropriate evaluation design for the longer-term studies. These are described in Section 6.

5. Proposed evaluation studies

Detailed below are some proposed evaluation studies which could be commissioned to meet the monitoring, evaluation and programme design needs in the short term. We recommend that additional time is spent on designing the longer-term evaluation studies described below.

5.1 Recommendation 4: Short-term evaluation studies

We recommend the following three evaluation studies in the short term. These focus on evaluation questions 5–10.

Study 4a: Monitoring uptake and desired characteristics of funded ELC

This study would contribute to evaluation questions 5–7, which relate to understanding the impact of expansion on the uptake of funded ELC and the characteristics of what is provided, i.e. quality, flexibility, accessibility and affordability of funded ELC.

A number of indicators could be identified for short-term monitoring of some outcomes and aspects of implementation. These are detailed in Appendix 2 and include:

- Percentage of eligible 2-, 3- and 4-year-olds registered for funded ELC annually at a national and local authority level.
- Percentage of registrations by age group for children with English as a first language, with a coordinated support plan or with additional support needs, at a national and local authority level.
- If possible, the number of hours that children attend ELC (or at least the daily registration figures).

Potential indicators would require scoping and agreement with stakeholders to ensure they are the most appropriate. Further work should also be undertaken

to address the limitations of existing data sources and agree the most appropriate indicators for monitoring characteristics in the longer term.

It is recommended that this study would report annually, with the timing determined by the existing publication cycle for the data sources identified and the monitoring and reporting of inputs, where this supports programme implementation.

Study 4b: Understanding the implementation of policy expansion and its impact on local authorities and the ELC sector

This study would incorporate those aspects of evaluation questions 6–10 concerned with implementation of the 600 hours expansion, and would specifically consider the impact of implementation on local authorities and the wider ELC sector. Appendix 2 details the evaluation options for this study which include:

- A series of quantitative measures including unit cost (cost per hour) for ELC provision for 2- ,3- and 4-year-olds in local authority, partner provider or non-partner provider settings by various breakdowns.
- New qualitative research to data to be gathered on a range of ELC delivery including perspectives of local authorities and service managers.

Study 4c: Exploring and monitoring parents' needs and experiences

This study would address evaluation aims concerned with exploring and monitoring the needs and experiences of parents, as they relate to the expansion of funded ELC (evaluation questions 7 and 8). More detailed options for this study are presented in Appendix 2 but propose:

- Existing quantitative data relating to affordability such as average weekly or per-hour cost of childcare to parents of:

    - 3- and 4-year-olds
    - under 3-year-olds
    - eligible 2-year-olds.
- Supplementary qualitative research as a follow on from the Scottish Government commissioned research on barriers for uptake for eligible 2-year-olds, to include parents of 3- and 4-year-olds.

5.2 Recommendation 5: Longer-term evaluation studies

We recommend a portfolio of six longer-term evaluation studies, some of which will build on the short-term studies described above. The developmental work recommended in Section 6 will be central to informing the design of these studies; however, early considerations and study design challenges are described below.

In considering the potential evaluation design options for these studies, particularly those assessing the impact of ELC on outcomes for parents and children, a number of potential challenges have been identified:

Taking account of the baseline

In order to assess impact of expansion to 1140 hours the existing levels of uptake of ELC, both funded and unfunded, need to be established. The number of hours attended, type of ELC setting attended (including whether multiple settings are used) and quality of provision are all likely to impact on children's outcomes, and should therefore be established at baseline (prior to implementing the 1140 hours).

Effects varying by socio-demographic group

Studies have shown that children's developmental outcomes are associated with various socio-demographic factors.[4] [5] [6] Any study of children's and parents' outcomes must therefore be able to take these factors into account. Detailed information of the characteristics of a child's family circumstances is not routinely available except for the 2-year-olds who would benefit most from

ELC. Furthermore, the number of hours a child attends ELC (funded or unfunded), the quality of childcare provided and the impacts of different types of ELC settings on child outcomes would all benefit from further analysis.

Data quality and sample sizes

Any study of outcomes needs to be of sufficient power to measure and explore variation in effect sizes between groups or areas and to construct robust models that can take account of the large number of explanatory variables likely to be required to control for the wide range of factors influencing uptake of ELC. The use of data sources with valid, reliable measures of the variables of interest should also be considered.

The scoping study recommended in Section 6 – to better estimate the size and characteristics of the potential beneficiary groups in the model – is important to inform the most appropriate sampling approach for any study.

Establishing causal inference

There are a multitude of factors which may affect outcomes for children and parents. The challenge is therefore to be able to isolate the impact of funded ELC expansion and control for other, possibly confounding, factors.

In summary, these studies would offer significant information in relation to the ELC expansion on child and parental outcomes. However, there are a number of challenges which would need to be considered in terms of the study design.

Study 5a: Assess the impact of expansion on child outcomes, with a particular focus on child development at end of ELC/ start of primary 1

There is a general consensus that attendance at ELC (funded or unfunded) of sufficient quality has a positive impact on preschool child development and, in turn, educational attainment in primary school.[7–10] Further, it has been shown that children from more deprived areas or vulnerable backgrounds stand to

benefit the most, and that ELC can contribute to closing the development gap by entry to primary school.[4] All of these are primary aims of the funded ELC expansion programme.

Evidence on the range of positive impacts of ELC is varied.[11–14] Some of these variations can be explained by the specifics of the programme and the setting in which it is implemented.[7] As the model of potential beneficiaries in Section 3 suggests, there is a variety of potential impacts on children's outcomes. The further developmental work suggested in Section 6 is therefore essential for informing decisions on the precise design of this study.

Study 5b: Assess the impact of expansion on parental outcomes, with a focus on maternal employment

There is a consensus that increasing the availability of funded or subsidised good-quality ELC has the potential to encourage women with young children to take up either employment or education and/or training opportunities that would enable them to return to the labour market. A substantial body of research found that the level of public provision and uptake of childcare is associated with maternal employment rates, with higher rates where children are eligible for more subsidised ELC per week.[14, 15]

The methodological challenges in carrying out such studies are substantial and similar to those described for study 5a, albeit within the context of parental outcomes.

Study 5c: Evaluation of implementation

Local authorities' and ELC providers' ability to offer ELC that is sufficiently flexible, affordable and of a high enough quality, underpins the ability of the policy to have a positive impact on parental and child outcomes. This study would be a continuation of study 4b, refocused to examine implementation of 1140 hours, with a similar study design. Given the iterative nature of

implementation it may be necessary to have two or three data collection points spanning pre- and post-implementation.

Study 5d: Monitoring patterns of uptake

Uptake of funded ELC is the key short-term indicator of successful implementation of the policy and provides an early indicator of the likely impact on longer-term outcomes. The Scottish Government is currently working on the design of a new national data collection. We recommend that individual-level data, including information on socio-demographics, utilisation (or not) of funded ELC, is required, and reason for eligibility for 2-year-olds is desirable. This study would build on study 4a by utilising the planned new ELC national data source once available. There is a case for including the number of hours children spend in unfunded childcare but this may be difficult to determine.

Finding accurate denominators for eligible 2-, 3- and 4-year-olds is a challenge for analysis. The population figures based on the Community Health Index (CHI) system are likely to be more accurate than the mid-year population estimates. We therefore recommend linking the new ELC data collection to health data to generate denominators for 3- and 4-year-olds and to allow exploration of the characteristics of those not using funded ELC. We understand that options for utilising HMRC, DWP and local authority data to estimate eligible 2-year-old populations has already been undertaken.

Study 5e: Assess and monitor the factors affecting the priority outcomes and uptake, specifically accessibility and quality of ELC

Accessibility (including flexibility and affordability) for families and quality of ELC are the key determinants of both ELC uptake and the longer-term outcomes for children and parents. We recommend that these aspects of study 4a are developed further, and so recommend further work is undertaken

to develop agreed definitions of ELC quality and accessibility which can be used in the evaluation.

Quality of ELC was identified as the key determinant of improvement in children's outcomes. There appears to be an absence of a shared definition of the aspects of ELC quality which will contribute most to improving children's developmental outcomes. However, three dimensions of quality are commonly used in the field to define and assess quality:[16]

- **Structure**: The resources used in the provision of care and the stable aspects of the environment. This includes staff-to-child ratios, group sizes, staff education, qualifications and training, spaces and materials.
- **Process**: The activities which constitute the provision of ELC, such as the interactions between children and ELC staff.
- **Outcome**: These are the consequences of care provision. In the current Scottish context, this would be the impact of the ELC setting on children's cognitive, social and emotional development.

We recommend a Scottish definition for quality ELC is agreed and that quality indicators are identified which could be monitored over time. This requires a review of both the published and grey literature, which is currently being undertaken.

Similarly, there is no agreed definition of accessible ELC in Scotland. As one of the key determinants of uptake, it is imperative that defining accessibility is prioritised. This could be done through the identification of the dimensions of accessibility of most relevance to funded ELC expansion. This would then inform the development of a framework for assessing and monitoring change over time.

Study 5f: Cost–benefit or value-for-money assessment

Both Scottish Government and stakeholders have expressed interest in evaluation of the value for money of the extension of funded ELC. The

developmental work described in Section 6 below would be key to defining the exact scope of this study.

Scottish Government and stakeholders have expressed interest in evaluation of the value for money of the extension of funded ELC. This has a number of potential components:

1. Understanding reasons for variations in unit costs in different providers and different areas.
2. Understanding the potential value of the wide range of benefits of ELC.
3. Understanding the extent of displacement of existing spending on ELC by families themselves.

There is existing literature on the potential impact of early years interventions such as ELC. It would be useful to review this in order to focus on the second of the components proposed above. The analyses could also draw on other elements of the evaluation such as the analyses of accessibility and quality, depending on the scope of the value-for-money analysis required by Scottish Government.

The third would draw on the model of potential beneficiaries. It would be useful to discuss with Scottish Government the priority attached to this analysis, given the commitment to the universal model of funding for 3- and 4-year-olds.

6. Proposed background tasks

6.1 Recommendation 6: Developmental work

We recommend the following studies/tasks which will underpin the studies outlined above.

Task 6a: Undertake an updated evidence review exploring the impact of expanding funded ELC on children's outcomes

NHS Health Scotland, in collaboration with the Scottish Collaboration for Public Health Research and Policy (SCPHRP), has undertaken a rapid systematic review on the likely impact of funded ELC expansion on parental outcomes. However, a similar recent evidence review for children's outcomes is not available. Such a review would:

- ensure both the theory of change and the model of potential beneficiaries are supported by the most up-to-date evidence
- identify any weaknesses in either which may need to be explored in an evaluation
- inform discussions about possible longer-term evaluation design.

Task 6b: Undertake an initial scoping study to understand the characteristics of each of the four potential beneficiary groups identified in the model

The model of potential beneficiaries (Figure 3) has identified four potential beneficiary groups. There are likely to be differential impacts of the policy on each of these groups. Given that groups 1 and 4 are likely to be small, there are questions about the plausibility of measuring change in priority outcomes at a population level. For example, if beneficiary group 1 (who don't currently access any form of ELC) is mostly composed of more vulnerable families experiencing the highest levels of social deprivation, then the impact of expansion on both the parents and children in this group will be high.

However, if the size of this beneficiary group is relatively small, then this reduces the likelihood of a measurable population-level change in parental and child outcomes.

To inform the development of the most appropriate portfolio of studies, and in particular to inform decisions on outcomes evaluation, it is important to first understand the size and composition of the four potential beneficiary groups. This would inform decisions on the most important outcomes to measure, and for which groups. From our initial scoping it seems unlikely any existing data sources would provide the necessary information. It is therefore likely that this scoping study would require additional bespoke data collection. The aim would be to better understand the socio-demographic characteristics of these groups and the likely impact of changes in the delivery of ELC on them. It would likely involve a mixture of quantitative and qualitative data collection, primarily from parents, but possibly also from funded/unfunded ELC providers.

Task 6c: Ensure the new ELC individual-level collection meets the needs of the evaluation

The current national ELC census, which provides data on uptake of funded ELC, is limited. However, work is underway to develop a new individual-level ELC collection, led by the Scottish Government. Monitoring uptake, and patterns of uptake across population groups, is recommended as a priority for the evaluation programme and it is therefore important that the needs of the evaluation are fed into the ELC data project.

Task 6d: We recommend further work is undertaken to develop agreed definitions of ELC quality and accessibility which can be used in the evaluation.

As described above for Study 5e, quality of ELC along with accessibility, affordability and flexibility were identified as the key determinant of improvement in children's outcomes. Definitions of these terms therefore need to be agreed.

Task 6e: We recommend further work is undertaken to identify what is of most interest to both Government and stakeholders to determine the most appropriate economic evaluation approach to take

As described above under 5f, more work needs to be undertaken to identify the most appropriate economic evaluation approach.

7. Summary of EA recommendations

Following assessment of the evaluation needs and existing evidence sources we recommend that:

1. A monitoring and evaluation advisory group is convened to oversee the development and delivery of this programme of work.

2. A theory-based approach to evaluation is taken.

3. The evaluation is phased according to agreed priorities.

4. In the short term three studies are undertaken which are:

    4a Monitoring uptake and desired characteristics of funded ELC.

    4b Understanding the implementation of and planning for policy expansion and its impact on local authorities and the ELC sector.

    4c Exploring and monitoring parents' needs and experiences.

5. In the longer term, a further six studies are undertaken:

    5a Assess the impact of expansion on child outcomes with a particular focus on child development at end of ELC/start of primary 1.

    5b Assess the impact of expansion on parental outcomes, with a particular focus on maternal employment.

    5c Evaluation of policy implementation.

    5d Monitor patterns of ELC uptake in the longer term.

    5e Assess and monitor the factors affecting the priority outcomes and uptake, specifically accessibility and quality of ELC.

    5f Assess the value for money or cost–benefit of ELC expansion.

6. The following developmental work is prioritised in the short term to inform longer-term evaluation design:

    6a To ensure that both the theory of change and model are evidence-based, and to inform study design, a more thorough evidence review, preferably a rapid systematic review, of potential impacts on child outcomes is undertaken.

    6b A scoping study is devised and undertaken which would estimate the size and socio-demographic characteristics of each of the potential beneficiary groups that have been identified.

    6c The new national individual-level ELC data collection is designed to meet the needs of the evaluation.

    6d Further work is undertaken to develop agreed definitions of ELC quality and accessibility.

    6e Further work is undertaken to identify what is of most interest to both Government and stakeholders to determine the most appropriate economic evaluation approach to take.

Appendix 1: Assumptions, unintended consequences and external factors

Assumptions underpinning the theory of change

- ELC expansion is implemented as intended, with equitable access to appropriate ELC for all families.
- Curriculum for Excellence and pre-birth to 3 guidance are being delivered as intended in ELC.
- A suitably qualified and experienced workforce is available and is retained to meet the increased demand.
- Parents have time to engage with ELC staff.
- Quality of ELC increases or a minimum level of good standards is achieved in all services.
- More children are in ELC for longer.
- Adequate infrastructure and funding is in place to meet the increased demand.
- ELC provision is tailored appropriately to the needs of each individual child and family.
- Additional hours in good-quality ELC remain affordable and accessible for all families.
- Children have access to the experiences, relationships and settings set out in *Building the Ambition* National Practice Guidance.

External factors which may impact on implementation and outcomes

- Education governance and funding changes which may impact on ELC policy.
- Introduction of the new health visitor pathway.
- Wider welfare changes (such as the introduction of universal credit and changes to eligibility for benefits).

- Cultural views regarding who is better suited to care for children at home.
- Changes to childcare tax-free/voucher scheme for under 3s.
- Implementation of wider educational and attainment-focused policies.
- Increased/widening access to further and higher education or reduction in funding to further education.
- Who pays for additional hours and is the cost evenly distributed between parents and impact of these costs on the affordability of returning to work.
- Further austerity and/or any change in public finance and socio-economic impacts of Brexit.
- Changes in the availability of good quality work and training places for parents.
- Availability of good parental leave and flexible working policies for all parents and assurance that these are followed.

Unintended consequences of implementing expansion of funded ELC

- Reduced opportunity for quality parent–child engagement and bonding, which may be detrimental to parent–child relationship, especially for most vulnerable children.
- Children new to or spending more time in ELC experience separation anxiety from parents.
- Families with younger, non-eligible children (babies) – these parents have respite to have increased time to spend with younger child.
- Diminished cultural importance of family and parental role in early childhood care/education as the state is perceived as taking on the role of parents/family.
- Additional ELC hours (including those for under 3s) increase in price, becoming less affordable for families and/or availability reduces.
- The unit cost of ELC may increase due to inflationary pressure and/or changes in quality standards.

- Opportunity cost of the expansion of ELC, in particular if many of the beneficiaries of the policy are the most advantaged families and/or those who currently access good-quality ELC.
- If more disadvantaged families experience barriers to uptake and/or there is limited access to training, education or good quality work this could widen health, social and economic inequalities for parents.
- Increased stigmatising media of parents entitled to ELC but who do not return to work, could put pressure on government to change eligibility criteria.
- If there is inadequate availability and access to training and good quality work for parents this may increase in-work poverty, and contribute to poor health and wellbeing outcomes for parents and families.
- If the quality of ELC reduces and if children are not given appropriate ELC in terms of type of setting and number of hours, this could lead to poorer health, wellbeing and educational outcomes for children and the widening of inequalities.
- Increased stigmatisation for families with eligible 2-year-olds.
- If more disadvantaged families experience barriers to uptake this could widen inequalities in child outcomes.
- Change to entitlement to out-of-work benefits for parents, with an expectation that parents return to work when child is 3 rather than 5.
- Change in family planning (child spacing) and birth rates.
- Reduced capacity for under 3s within ELC settings and reduced capacity to deliver after-school care.
- Increase in referrals from ELC may put increased pressure on support services for parents and children (such as social services, speech and language therapy).
- ELC staff's capacity is reduced, leading to reduced effective engagement with families.
- Quality of ELC declines with increased numbers of children (which reduces staff capacity and puts strain on facilities) and if funding is inadequate.

- Reduced demand for some private/voluntary ELC providers may reduce their sustainability/viability; they may close and this would contribute to reduced choice and flexibility.
- Change in the working conditions of ELC staff – for example change to pay, hours, flexibility or training.
- Employers put increased demands on parents to work 30 hours.
- By increasing women's ability to participate in the labour market, ELC is likely to increase labour supply and labour flexibility, facilitating recruitment, increasing output and productivity for some sectors.

Appendix 2: Short-term evaluation study design options

Study 4a

Question

5a. How has the uptake of ELC changed with the expansion?

5b. How does uptake vary by age of child, geographically and by demographic group?

Potential indicator/ data

- Percentage of eligible 2-year-olds registered for funded ELC annually at a national and local authority level. Supplemented with work to produce more accurate denominators for the eligible population at a local authority level, and routinely revisiting these estimates. **Source**: Scottish Government ELC statistics with supplementary work to improve denominators.

- Percentage of 3- and 4-year-olds registered for funded ELC annually at a national and local authority level. Supplemented with work to seek more reliable denominators at a local authority level, possibly using health data. **Source**: This is planned analysis to be undertaken jointly between GUS and NHS Health Scotland.

- Percentage of registrations by age group for children with English as a second language, with a coordinated support plan, with additional support needs, at a national and local authority level. **Source**: Additional analysis of Understanding Society data.

- Analysis of the Growing Up In Scotland (GUS) birth cohorts data to explore change in uptake and patterns of use between GUS cohorts, pre- and post-600 hours expansion, and exploring differences between

and changes among specific population groups. **Source**: New collaborative project with a sample of local authorities and analysts.

- Explore the possibility of using the Understanding Society data to monitor average hours 2–4-year-olds spend in ELC (funded and unfunded) and types of childcare used during term-time and school holidays. Disaggregation to look at patterns by different socio-demographic groups may be possible.

- Analysts to work with a sample of local authorities to explore the potential of analysing existing ELC administrative data. This data may offer child level information on uptake (including how funded hours are taken, hours of uptake) and socio-demographic information on families. This may provide more granular data on patterns of uptake.

Question

6a. How has the quality (specifically the aspects linked to improving child development) of ELC changed since expansion?

6b. Is there variation over time, by type of setting and geographically?

Potential indicator/ data

- Annually monitor the percentage of ELC settings recorded as very good (5) or excellent (6) for the Care Inspectorate Care and Support theme overall. If possible establish a pre-2014 baseline. **Source**: Care Inspectorate.

- Monitor annually the percentage of ELC settings recorded as very good (5) or excellent (6) for the Care Inspectorate Care and Support theme disaggregated by type of ELC provider, whether service provides funded ELC, by SIMD deciles, by local authority. **Source**: Scottish Government ELC statistics.

- Percentage of ELC funded services with access to a GTCS registered teacher.

Question

7a. How have the patterns of funded ELC offered changed following the expansion?

Potential indicator/ data

- Annually monitor change in the number, characteristics (for example type of service, opening hours, capacity, wrap-around care provision and so on) and distribution or density of funded and unfunded ELC services annually at a national and local authority level, by SIMD deciles, by urban/rural classifications. **Source**: Care Inspectorate Childcare Statistics – with additional analysis.

- The above could be supplemented with a new data collection from local authorities, possibly drawn from existing administrative data, gathering data on the number and characteristics of funded ELC places available to parents on an annual/biennial basis. This should be developed with stakeholders. This could serve as an interim source of data while the longer-term evaluation programme is developed. **Source**: Additional data collection and analysis.

Study 4b

Question

6c. If quality has been improved/maintained, how has this been achieved?

6d. What changes/improvements have been made to ensure that children access quality experiences and outcomes appropriate for their stage of learning?

6e. To what extent have changes/improvements been based on evidence of what works?

6f. Which changes were most effective and what were the challenges?

Potential indicator/data

- We have not identified appropriate existing data sources for these questions. We think these questions are best answered by a two-stage evaluation project. The first stage could collect data qualitatively from ELC services and local authorities currently providing funded ELC in Year 1 with a subsequent data collection stage in Year 2/3. A mixed-methods approach should be considered which could use surveys of all local authorities/ELC services and interviews with a representative sample of local authority and ELC service managers. This would provide desired breadth and depth of data. There may be opportunities to use existing networks, such as the ADES Early Years Leads, and data collection opportunities, such as NDNA annual survey and the Care Inspectorate annual returns. **Source**: New qualitative data collection.
- This could be further supplemented by requesting local evaluation and other planning papers for documentary analysis.

Question

7b. How have local authorities consulted with parents, responded to these consultations and evaluated the changes they have put in place?

7c. What are the barriers and facilitators for providing more accessible, in particular flexible, funded ELC for local authorities and services, and

what have been the consequences of increased flexibility? What learning can be shared?

7d. How has the expansion been communicated to families, and what learning can be taken from this?

Potential indicator/data

- Documentary analysis of the biennial local authority parents consultations and action plans. Parenting Across Scotland undertook an initial review of the first parent consultations in 2015. This report could be used as a baseline, or it may be deemed necessary to review these again if a different analysis plan is developed in Year 1. This exercise should be repeated in Year 2/3 when a sufficient number of local authorities have repeated their consultations. **Source**: New qualitative research.
- This could be supplemented by qualitative research (interviews/survey) with a representative sample of local authorities and service managers. Again to monitor change and progress, and provide the most useful learning for policy implementation, this should involve at least two data collection points up to 2020, in Year 1 and Year 2/3.

Question

8a. What has been the impact of the different models of funding provision used by local authorities on local authorities, parents and partner providers?

Potential indicator/data

- This question relates to the broader financial impact so would be covered under the financial impact question (9a).

Question

9a. What has the financial impact of the expansion of ELC been for providers (both local authorities and partner providers)? Does this vary

geographically? (Consider unit costs for providing ELC, sustainability of partner providers.)

9b. What has the financial impact been on non-partner providers and the overall composition of the ELC sector in Scotland?

9c. What impact has the policy had on the capacity of the ELC sectors for eligible 2-, 3- and 4-year-olds, and non-eligible under-3 places?

9d. What impact has the policy had on the composition of staff teams (such as staff demographics, qualifications, staff turnover) by setting and geographically and on staff working conditions?

9e. Has the additional graduate commitment been delivered?

9f. What other impacts/unintended consequences has the expansion had for the ELC sector?

Potential indicator/data

- Unit cost (cost per hour) for ELC provision for 2-, 3- and 4-year-olds in local authorities, PPs and non-PPs settings by various breakdowns (type of setting/service. deprivation, urban-rural aspect, population density, size of LA or PPs).
- To the extent that the 600 hours impact (positively or negatively) on the financial viability of the sector this will be reflected in the indicators below on capacity and composition of the sector.
- Number of registered services for daycare of children by main service type as per different geographies (urban-rural, LAs) deprivation and population densities.
- Number of registered services for daycare of children offering services by age of children.
- Number of places made available for 2-, 3- and 4-year-olds.
- Number of staff recruited to provide care for eligible 2-, 3- and 4-year-olds.
- Number of places remaining/available for non-eligible under 3-year-olds in ELC sectors.
- Percentage of ELC providers (LAs and PPs) reporting sufficient childcare for 2-, 3- and 4 year-olds.

Source: Existing sources: Scottish Government (LA data collection), Ipsos MORI: Costs of Early Learning and Childcare Provision, Care inspectorate Early Learning and Childcare statistics, SSSC data.

- Number of registered ELC workforce by type of service and by job function for daycare services.
- Number of ELC workforce in funded ELC settings (by job function for daycare).
- Median age of staff by type of service and job function for daycare.
- Number of daycare staff holding a SVQ2/SVQ3.
- Number of daycare staff holding or working towards a university degree to fulfil the additional graduate commitment.
- Number of ELC settings having access to GTCS teachers.
- Average number of hours worked per week by ELC staff.
- Median number of hours worked per week by ELC staff.
- Annual median wage of ELC sector (SOC code 612).
- Annual mean wage of ELC sector (SOC code 612).
- Interviews or focus groups with the ELC staff.

Source: New qualitative work with the ELC sector to understand the impact on capacity issues on the ground

Question

10a. What learning can be identified from how local authorities have implemented the expansion of ELC in terms of models and funding arrangements, working with local stakeholders and partner providers, communication and consultation with parents, and improving the quality of ELC?

10b. What worked well/less well in the national governance and support for local authorities in the implementation of this programme? Were the funding arrangements between SG and local authorities adequate to support the aims of the programme? How could these be improved?

10c. To what extent do wider stakeholders understand, engage and further support the aims of the expansion?

Potential indicator/data

- Data on how local authorities communicated and consulted with parents will be collected via Q7 and efforts to maintain or improve the quality of provision will be collected via Q6. **Source**: New qualitative research.
- The remaining aspects of 10a and 10b will require collecting descriptive information on how local authorities have implemented ELC600, including how they have worked with relevant stakeholders. Sampling a cross section of local authorities for some in-depth qualitative research, possibly developing case studies, with a supplementary survey of all local authorities should provide both the depth and breadth of data necessary to understand how authorities have responded to ELC600. Given the iterative nature of implementation for aspects such as increasing flexibility and improving quality, two data collection points are recommended (Year 1 and Year 2/3).
- To address 10c appropriate stakeholders would first need to be identified, and then qualitative research (focus groups, interviews, surveys as appropriate) undertaken to explore their knowledge of and attitudes towards the expansion. There may be opportunity to use existing networks and surveys/data collection systems to engage with wider stakeholders, such as NDNA annual survey of nurseries in Scotland.

Study 4c

Question

7e. What are the barriers and facilitators to uptake (of full entitlement) for different groups? What impact do these have on equity of access?

7f. Do parents, in particular those living in the most deprived and in rural areas, perceive that ELC is becoming more accessible, in particular flexible, and meeting their needs? If not, what are the main issues perceived by parents and how do these change over time?

Potential indicator/data

- The commissioned research on barriers to uptake for eligible 2-year-olds will provide useful data for 7e. **Source**: Current Scottish Government commissioned research.
- The above research could be complemented by qualitative research mapping the current identification, sign-posting and referral pathways in a sample of local authorities and identifying potential barriers for eligible 2-year-old families.
- Further qualitative research focused on parents of 3- and 4-year-old children, in particular the most vulnerable and those in deprived and rural areas, to explore the barriers and facilitators to access/uptake for this group. It recommended that this is phased with collection in Year 1 and Year 2/3, to explore change overtime as the wider context changes, or as the implementation of the ELC600 policy evolves. **Source**: New qualitative research.
- Documentary analysis of local authority parents' consultation may also identify that common themes may be possible, however given the difference in the sampling approach and content of these consultations this may be limited. It may be possible to work with local authorities to agree a standard methodology or set of consultation questions for the next round of consultations.

Question

8c. What has been the impact on the affordability of overall childcare costs for parents, in particular the most disadvantaged families?

Potential indicator/data

- Average weekly or per hour cost of childcare to parents of 3- and 4-year-olds.
- Average weekly or per hour cost of childcare to parents of under 3-year-olds.
- Average weekly or per hour cost of childcare to parents of eligible 2-year-olds.
- All above disaggregated by local authority and urban-rural aspect, population density). **Source**: Family and Childcare Trust Survey data.

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6091 6/2017