Measuring what matters:
A guide for children's centres

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Acknowledgements

We are very grateful for the challenge and expertise of our Advisory Group:

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Whittington Health

Karen Pearson
Head of Early Years, Childcare and Children's Centres,
Birmingham City Council

Wendy Ripley
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Clare Sandling
Starting Well Policy Lead, Department of Health

With additional input from:

Duncan Aitchison
Early Years Curriculum and Teaching, Department for Education

Dr Helen Duncan
Programme Director, Child and Maternal Health Intelligence Network,
Public Health England

Honor Rhodes OBE
Director of Strategy, The Tavistock Centre for Couple Relationships

With many thanks also to those who facilitated and participated in our visits to Birmingham, Essex, Gateshead, Knowsley, Lambeth, Suffolk, Warwickshire and Wiltshire, as well as to 4Children for funding this project.

This guide has been specifically written for children's centres.
A technical report to accompany this guide is available at:
www.instituteofhealthequity.org/ and www.4Children.org.uk

1. Background

1.1 Demonstrating Impact

The early years are critically important for creating 'solid psychological and neurological foundations to optimise lifelong social, emotional and physical health, and educational and economic achievement'[1]. A number of government reviews[2] have reinforced the importance of early intervention and supporting families in the foundation years, and have set out a strong economic case for investing in the early years to improve outcomes for children in later life.

Children's centres play a key role in early intervention and are a vital source of support for young children and their families, particularly the most disadvantaged. They offer a range of activities, family services and advice, to promote school readiness[3], improve family outcomes and reduce inequalities in child health and development, and are highly valued by communities. However, children's centres require considerable investment and their overall effectiveness – in terms of improving outcomes for children and providing value for money – is regularly debated[4].

The Sure Start Programme begun in 1998 as Sure Start Local Programmes, before many developed into children's centres as we now know them. Centres were originally set up to serve small areas, with no clear administrative boundaries and no systems in place to ease the collection of information to evidence impact.

Another challenge that children's centres face is that their impact can take many years to manifest, and staking claim to that impact can be problematic. The Evaluation of Children's Centres in England (ECCE) study[5] aims to publish its main report on the impact of children's centres on families' outcomes in 2015.

During field visits for this research, it emerged that children's centres attempt to overcome these measurement hurdles by demonstrating their success in terms of:

I. Outputs, such as the number of families reached and engaged by services

II. Case files that track and demonstrate the improvements made by individual families

III. 'Soft outcome' data, such as whether a parent feels like they and/or their children have benefitted from a service.

Understanding the terms:

Outcomes

An outcome is a measurable change, sometimes attributable, or partly attributable, to an earlier intervention. Outcomes and distance travelled, as a result of inputs, outputs, activities and interim (short-term) outcomes, can be measured using outcome indicators or measurement tools.

This is important information that can help children's centres to show the 'distance travelled' by families and the 'stepping stones' towards achieving impact. However, inspectors, investors, commissioners and managers, as well as the Government, need to see clear, comparable data that demonstrates the ways in which children's centres 'improve outcomes for young children and their families and reduce inequalities between families in greatest need and their peers'[6]: the core purpose of children's centres.

Failing to evidence the positive difference children's centres make to families' outcomes will make it difficult for centres to improve their offer, and leaves them vulnerable to criticism, cuts and closures.

1.2 Developing an outcomes framework for children's centres

It was in this context that the Institute of Health Equity (IHE) was asked to develop an outcomes framework for children's centres.

To do this, we needed to determine:

1. What early experiences (from the point of conception) have the biggest influence on later life chances?

2. What things can children's centres impact?

To answer these questions, the IHE reviewed the best available wider research on child health and development, and spoke to leading experts. The resultant work is published in An Equal Start: Improving outcomes in Children's Centres[7], available at:

www.instituteofhealthequity.org/projects/an-equal-start-improving-outcomes-in-childrens-centres

It is also summarised in the technical report for this document.

1.3 The Essential Outcomes In The Institute Of Health Equity's Outcomes Framework

Once children are safe and their basic health needs are met, children's centres should focus on achieving and measuring the 'essential outcomes', published in An Equal Start. These 'essential outcomes' are what the evidence suggests are the strongest drivers, or predictors, of good outcomes for children, now and in the future. Eight of the essential outcomes are specific to children, and include four domains of health and development:

I. Cognitive development

II. How well children are learning to communicate and use language

III. The emergence of social and emotional skills

IV. Children's physical health.

However, the parenting that surrounds the child and the context in which that parenting takes place have been found to be the best predictors of outcomes for children. Therefore, to truly improve outcomes for children, we also need to be looking at the 'building blocks' of children's health and development. Thirteen of the essential outcomes are thus specific to parents and their circumstances.

The outcomes framework containing the 21 essential outcomes are listed overleaf in Figure 1.

Figure 1: Areas for focus and outcomes

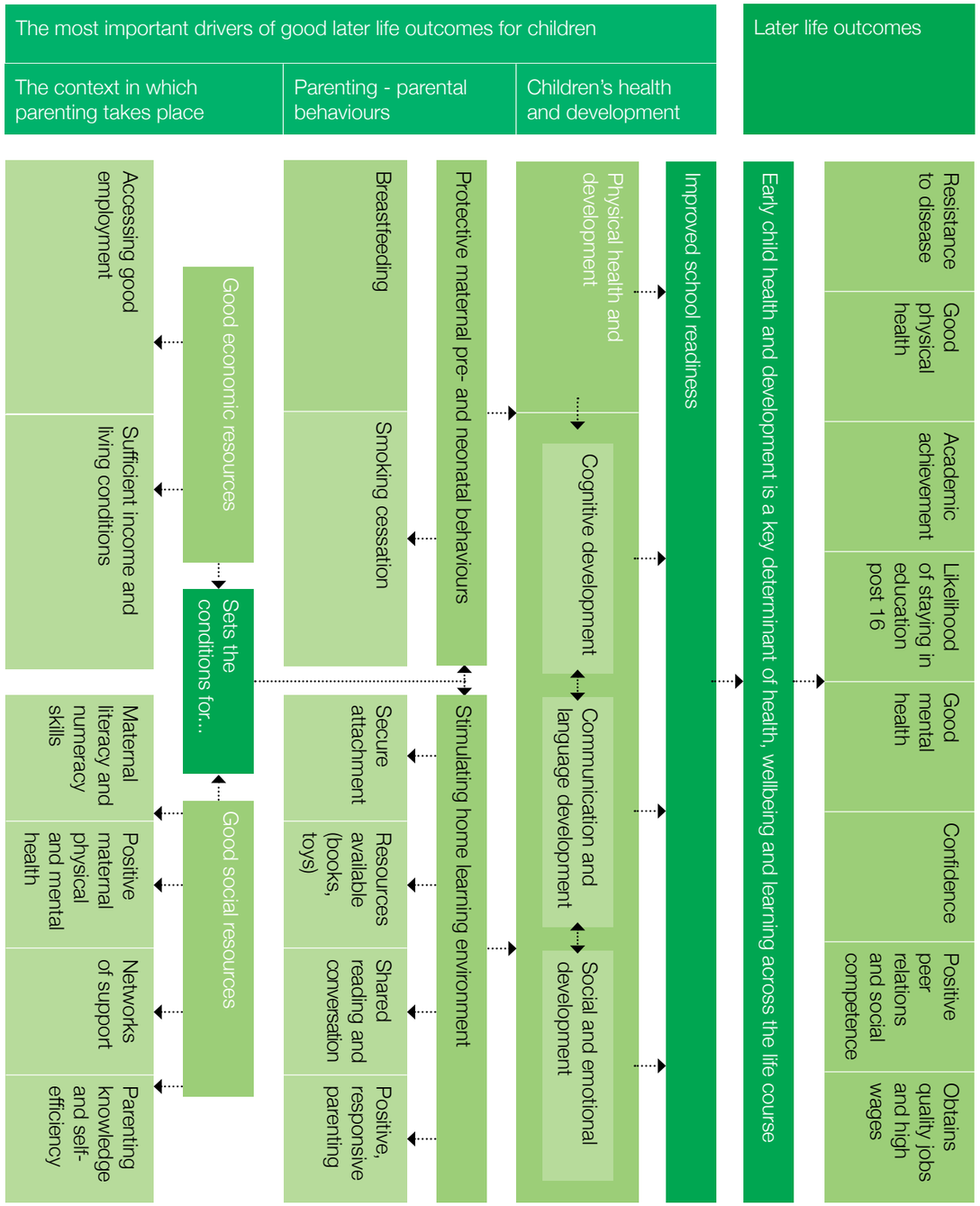
Areas for focus	Essential outcomes identified in An Equal Start
Effective outreach	A. Effective outreach and sustained engagement with the wider community, with a particular focus on the most disadvantaged families
Children are developing well	1. All children are developing age appropriate skills in drawing and copying
	2. Children increase the level to which they pay attention during activities and to the people around them
	3. Children are developing age appropriate comprehension of spoken and written language
	4. Children are engaging in age appropriate play
	6. Children have age appropriate self-management and self control
	7. Fewer children born with low birth weight
	8. Fewer children with high or low Body Mass Index
Parenting and parent context enables good parenting and child development	9. Fewer women are exposed to tobacco smoke during pregnancy
	10. More mothers who breastfeed
	11. More parents are regularly talking to their child using a wide range of words and sentence structures, including songs, poems and rhymes
	12. More parents are reading to their child every day
	13. More parents are regularly engaging positively with their children
	14. Improved parental responsiveness and secure parent-child attachment
	15. More parents are setting and reinforcing boundaries
	16. More parents are experiencing lower levels of stress in their home and in their lives
	17. More parents with good mental wellbeing
	18. More parents have greater levels of support from friends and/or family
	19. More parents are improving their basic skills, particularly in literacy and numeracy
	20. More parents are increasing their knowledge and application of good parenting
	21. More parents are accessing good work or developing the skills needed for employment, particularly those furthest away from the labour market.

* Outcome 14 was formerly worded: 'More parents are actively listening to their children'. However, this has been adapted to 'Increased parental responsiveness and secure parent-child attachment'. The quality of attachment is strongly linked to children's health and development, increased resilience and protection against poor outcomes. Increased responsiveness has also been shown to facilitate growth in children's social and emotional development, communication and cognitive competence. For further information please see: An Equal Start.

The importance of ensuring access to children's centres and engagement with families was discussed in An Equal Start. An associated outcome was not originally set in the summary document but this has now been addressed within this evaluation framework.

Figure 2 illustrates the essential outcomes in a pathways model. This provides another way of showing how the key drivers influence children's health and development outcomes. So, in essence, we are turning the framework upside down: having access to good economic and social resources predicts protective positive maternal behaviours and the likelihood that a child will experience a stimulating home learning environment. If the building blocks are right, then children's outcomes, including improved school readiness (measured through more children achieving a 'good level of development' on the Early Years Foundation Stage Profile [EYFS Profile]), and a reduction in inequalities, are more likely to be achieved.

Figure 2: Improving children's later life outcomes - a positive pathways model



2. Children's centres – the current context

The Coalition Government has retained the statutory duty under the Childcare Act 2006 for local authorities to provide enough children's centres to meet need. However, ring-fencing for Sure Start Children's Centre funding was abolished following the 2010 Comprehensive Spending Review, with resources absorbed into the wider Early Intervention Grant (EIG), which itself ceased to exist in April 2013. Funding for early intervention and family services is now part of the new local government funding scheme (the Business Rates Retention Scheme). By 2014/15, the available budget from which local authorities provide children's centres will have fallen by more than a third (down 36 per cent or £0.9 billion), since 2010[8]. Children's centres are anticipating further cuts[9] and are being counted on to do more for less.

The IHE's outcomes framework is based on what matters the most to children's outcomes. However, funding reductions have meant that some family services that impact on the essential outcomes are either being cut or scaled back. For example, there is evidence that local authorities and children's centres are attempting to manage these cutbacks by reducing their universal offer and wider family-centred in-house provision to focus instead on delivering a more targeted, focused approach[10]. In the 2013 return of 4Children's Sure Start Children's Centre survey, just under a third of children's centres anticipated providing fewer services to parents next year[11]. Children's centres have also reported limited provision of English for speakers of other languages (ESOL) courses, job skills courses and Jobcentre Plus advice[12]. Ofsted inspection reports published since the latest Ofsted framework for inspecting children's centres was introduced have similarly highlighted insufficient adult employment and training opportunities[13].

During field visits we found that many family-centred services to address the context in which parenting takes place, such as partnership working with Jobcentre Plus, are either being cut or the roles absorbed by children's centre staff as part of the reorganisation of children's centres and their delivery of services. Professionals within one case study area spoke of not feeling qualified to provide employment or debt advice, although this was now expected of them.

Parenting, and the context in which parenting takes place, are the most important drivers of good outcomes for children. Government and local commissioners must ensure that funding cuts do not undermine children's centres' capacity to deliver these crucial family-focused services.

2.1 Aligning the framework with existing measurement processes

In order not to overwhelm and overburden children's centres when they are already being stretched, we have tried to align the outcomes framework and associated measures with:

1. Existing frameworks, guidelines and initiatives: the Ofsted Framework for Children's Centre Inspection[14], the Early Years Foundation Stage Framework (EYFS Framework)[15], the Healthy Child Programme[16], and the Big Lottery Fund's A Better Start programme[17]
2. Existing data collection practices: information currently collected within children's centres and data collected/collated by different agencies, using a well-designed indicator for a different purpose, such as for national statistics
3. Measures already used within children's centres, such as validated measures integrated with specific parenting programmes.

2.2 Existing frameworks

The IHE's outcomes framework aligns well with research and policy advice on what children's centres should do. Indeed, Ofsted's subsidiary guidance for inspectors[18], published in June 2013, referenced the IHE's An Equal Start as useful research for inspectors to review prior to conducting inspections.

The Ofsted Framework for Children's Centre Inspection[19] is the most common and accessible framework used to measure the quality of children's centres in England. The framework states that when making their judgements, inspectors must consider, among other key criteria:

1. The quality and impact of services in improving outcomes in the readiness of target children for school
2. Improved parenting and opportunities for target adults to participate in activities that improve their personal skills, education and employability
3. The effectiveness of partnerships with key agencies
4. The extent to which centres provide effective services to those families most in need of help and support.

By following the IHE's evaluation framework, children's centres will not only improve outcomes for children and families, but will be better equipped to complete their Ofsted self-evaluation form (SEF)[20] and meet Ofsted's inspection requirements[21].

The framework also aligns with the 'core purpose' of children's centres, as defined in the Sure Start Children's Centre Statutory Guidance[22]. The statutory framework articulates the ways in which children's centres can support the achievement of improved child development and school readiness, through:

1. Promoting parental mental health and parenting skills
2. Improving the skills that enable parents to access education, training and employment
3. Addressing risk factors in the context in which parenting takes place to ensure that children and families are free from poverty.

The guidance draws attention to evidence that universal adult learning and employment support, as well as information for families, such as benefit or debt advice, have been proven to make a difference to children and families. Such universal activities can engage many of the families in need of extra support so that they become receptive to appropriate targeted activities. Children's centres can therefore be confident that they are fulfilling their statutory duty when embedding the outcomes framework.

Further information on how each of the outcomes and associated measures align with statutory frameworks and non-statutory guidelines can be found in the main tables within this guidance document (Chapter 4).

2.3 Existing data collection measures and practices

The majority of the children's centres that we visited were confident that they were continuing to work towards achieving most of the IHE's essential outcomes. However, it emerged that none of the centres were currently measuring their contribution towards achieving all of the essential outcomes, and certainly not through the use of standardised and validated quantitative measures.

Understanding the terms:

Outcome monitoring tool

For purposes of this report, an outcome monitoring tool is a specific, validated instrument to collect information on outcomes.

Where standardised measurement tools were used, they were integrated with specific programmes, such as Triple P[23] or the Solihull Approach[24], and were thus only used with a small number of targeted families. The fourth report from the Evaluation of Children's Centres in England (ECCE)[25] found that evidence-based services to address parenting tend to reach only very few users, with a typical centre engaging around 22 to 25 parents on such evidence-based courses each year.

The evaluation and monitoring frameworks developed and used within the majority of participating children's centres were typically shaped by:

1. The Ofsted framework for children's centre inspection[26]
2. The Every Child Matters outcomes[27]
3. Local community needs analyses.

Some of the local authorities that had participated in the Payment by Results (PbR) trials had also chosen to incorporate some of the trial measures, such as breastfeeding rates and sustained engagement, into their evaluation frameworks.

The best children's centres have been found to make good use of data and do not rely on anecdotal evidence[28]. They also continue to track children and family outcomes when children and families leave[29]. Overall, we found evidence of more advanced and established evaluation frameworks and measurement regimes within children's centres integrated with schools. This apparently eased data linkage and the tracking of progress made by children and families.

What also emerged from our research was that children's centres are generally confused about what they should be measuring and why, and feel under pressure to "measure absolutely everything", "just in case"[30] the information might be of value later. A lack of clarity and understanding around outcome measurement sometimes resulted in children's centres having too much data to make sense of, with over-stretched staff and frustrated, bored users. Having no measurement standardisation also made it difficult for children's centre managers and commissioners to compare and demonstrate the effectiveness of children's centres within the local area.

However, during field visits, we were pleased to hear that despite cutbacks, and in the context of changing management and delivery approaches, many local authority areas are continuing to work hard to improve outcomes for children by ensuring that services work together to address the key drivers of good outcomes for children – specifically parenting, the context in which parenting takes place, and the domains of children's health and development. Indeed, a number of local authorities have started to align their own evaluation frameworks with the IHE's outcomes framework, which is fantastic news for children and families. However, children's centres told us that they now urgently need help with how they can work with partners to start consistently measuring their impact when embedding the outcomes framework.

3. How we agreed on the measures

3.1 Measuring what is important

"Not everything that can be counted counts and not everything that counts can be counted."
Albert Einstein

Within this guidance document, the IHE presents a suite of measures that will help children's centres to demonstrate their contribution to the achievement of the essential outcomes – the 'building blocks' that evidence suggests if you get right, will lead to good outcomes for children.

The outcomes framework was guided by the principle that children's centres need to be focusing on and measuring what is important, not just what can be easily measured.

This is a critical point: measurement for measurement's sake will not provide children's centres with the 'right' information – the information that inspectors, investors, managers, commissioners and other decision-makers need in order to help inform and improve services, and that will show that outcomes for children are improving.

Using independent, nationally accepted and standardised, quantitative measures, selected for their reliability and validity, can help children's centres to recognise change and confidently demonstrate that such change is at least partly attributable to an intervention that they have made – rather than as a direct result of other events or 'variables', or simply because things have improved naturally. Quantitative measures can also make it easier for commissioners to compare and demonstrate the effectiveness of children's centres within and across local areas, and can help identify which activities are less effective and thus should be changed.

Understanding the terms:

Setter bias

When the person asking the questions has some invested interest in the answer received, so might consciously or unconsciously direct the respondent to answer the question in a certain, favourable way.

Although relevance can be increased through the use of locally-developed or non-standardised tools, issues of validity and setter bias (see box) arise where they have not been validated externally. The benefits of using standardised, validated tools outweigh the benefits of increased relevance.

By implementing the IHE's outcomes framework and associated quantitative measures, children's centres will be both improving outcomes for children and dispelling criticism that they have a limited evidence base, which will help to keep centres open, funded and thriving.

However, developing an evaluation framework based on what matters the most, not what can be easily measured, has been particularly challenging because there has been a lack of research in this area. Nevertheless, we have sought to seek out the most appropriate, currently available measures for each of the essential outcomes. These will help to inform better measurement of progress towards improved outcomes for children.

3.2 Our selection process

To select the measures included in this guidance document, we undertook the following process:

1. A review of the academic literature
2. Field visits
3. Input from an expert advisory panel
4. Consideration of the evidence.

These will now be considered in turn.

I. A review of the academic literature:

A thorough review of the available measures was performed with the aim of identifying available tools that could potentially be used to measure one or more of the 'essential outcomes'. The identified measures were then evaluated on additional criteria relevant to the project aims, such as how reliable and valid they were (see Glossary and box, right), and whether they could be considered practical and efficient to be used by practitioners within children's centres or by partner agencies.

A tool was considered measurable and accurate if a relevant evaluation existed which found the tool to be as such. The practicality and efficiency of each instrument were based on whether the instrument involved a simple procedure that could feasibly be carried out by children's centres. Measurement instruments incorporating large inventories of items (more than 50), and/or complex methods of scoring, were therefore considered to be impractical and inefficient for use by children's centres and partner agencies. Measurement tools that were initially considered measurable, accurate, practical and efficient at this stage were further considered against a more detailed set of criteria that can be found in the accompanying technical report.

II. Field visits:

Workshops and interviews were undertaken in 22 children's centres within eight areas across England: Warwickshire, Birmingham, Knowsley, Gateshead, Suffolk, Essex, Lambeth and Wiltshire. We also spoke to

Understanding the terms:

Reliable measure

A measure that has been found to measure something consistently.

Valid Measure

A measure that has been found to measure the exact subject or matter that you want to measure.

commissioners, practitioners from partner agencies, data managers, advisory groups and elected members.

Prior to the visits, surveys were developed and distributed to a central person for dissemination in order to explore what, if any, validated measurement instruments were currently being used that aligned with the 'essential outcomes'.

III. Input from an expert advisory panel:

Following on from An Equal Start, we brought together an advisory group of practitioners, senior managers, leading academics and policy officials to respond to our work. They acted as 'critical friends' and helped to synthesise the academic evidence and practice-based understanding.

IV. Consideration of the evidence:

The final set of suggested measures – indicators and measurement tools – does not represent a definitive list of measures, but the measures generally considered, based on the selection process detailed above, the most appropriate for children's centres overall. Some other measures are still valid and may be more appropriate in some circumstances (that is, where they are already embedded and staff are trained in their administration).

Also, for some of the measures identified using our selection criteria as being the most appropriate to align with the outcomes framework, there are small purchasing, training and/or re-accreditation costs attached. We appreciate that we are operating in difficult financial times, so where this is the case we have strived to identify an alternative tool that is cost-free and easily accessible (see technical report for further information).

However, we do believe that utilising a consistent set across the country would help commissioners and research in this area, hence why we have strived to identify the most appropriate measure, or set of measures, for each outcome.

As we wanted to ensure that any changes seen using the measures were a reliable indicator of progress achieved, we have needed to rely on measures that were judged to be reliable within the academic literature. However, there has not been enough research on how best to measure outcomes – especially the outcomes included in the outcomes framework – using quantitative measures within children's centres. We have therefore needed to recommend a wide range of measures that have been tested in other environments, such as medical settings and for research purposes. Consequently, the IHE makes a number of recommendations for further research, which can be found in the technical report. A matrix mapping the selected measures against where further research is necessary is included in the Appendix.

Despite these limitations, we believe that there is value in sharing the measures we have found with children's centres and commissioners with a view to helping children's centre managers start to consider how they can reliably evidence the impact of the important work that they do.

Further information about our measures selection process can be found within the technical report.

4. The measures

Children's centres have to work with others to improve outcomes. Accordingly, children's centres should utilise data from a wide range of sources. To achieve and measure the essential outcomes most effectively, a whole-system approach will be required.

The following guidance, therefore, has been produced to support children's centres, local authorities, health and employment services to implement and measure the impact of a whole-system approach to improving outcomes for children.

The outcomes framework will need to be approached in three ways. For some of the outcomes:

1. Children's centres will be responsible for collecting data
2. Children's centre data managers will need to work with partners to obtain data
3. A whole-system approach will be required to engage families and collect, collate and share data.

Children's centres have data collection responsibilities for 20 of the 22 outcomes within the evaluation framework. However, a holistic, whole-system approach will be necessary to achieve and measure the majority of the outcomes successfully. This guide therefore includes specific measurement instructions for different agencies.

For all of the essential outcomes, we present a table that describes:

1. The essential outcome(s) – numbers correspond to outcome numbers used in An Equal Start
2. Selected associated measure(s)
3. Which agency or agencies are responsible for administering the measure(s) and/or collecting, collating and/or sharing data
4. The rationale for the measure(s)
5. A description of aligned statutory frameworks/non-statutory guidelines/ initiatives.

More detailed information about data collection and analysis for data managers, as well as copies of selected tools, can be found in the corresponding tables within the technical report. A glossary of key terms used within this guide can be found in the Appendix.

Figure 3: Areas for focus, outcomes and measures

Areas for focus	Essential outcomes identified in An Equal Start	Measures
Effective outreach	A. Effective outreach and sustained engagement with the wider community, with a particular focus on the most disadvantaged families	Indicator: % of disadvantaged and all families with young children (0-5) registered and who have sustained contact with children's centre (community and population-level measure).
Children are developing well	1. All children are developing age appropriate skills in drawing and copying	Measures: Non-statutory guidance to support review of children's development in the Early Years Foundation Stage Framework (EYFSF) and the Early Years Foundation Stage Profile (EYFSP) / Ages and Stages Questionnaire third edition (ASQ-3) and Ages and Stages Questionnaire Social-Emotional (ASQ:SE) (Healthy Child Programme).
	2. Children increase the level to which they pay attention during activities and to the people around them	Measures: EYFSF & EYFSP / ASQ-3 & ASQ:SE.
	3. Children are developing age appropriate comprehension of spoken and written language	Measures: EYFSF & EYFSP / ASQ-3 & ASQ:SE.
	4. Children are building age appropriate use of spoken and written language	Measures: EYFSF & EYFSP / ASQ-3 & ASQ:SE.
	5. Children are engaging in age appropriate play	Measures: EYFSF & EYFSP / ASQ-3 & ASQ:SE.
	6. Children have age appropriate self-management and self control	Measures: EYFSF & EYFSP / ASQ-3 & ASQ:SE.
	7. Fewer children born with low birth weight	Indicator: % of term babies born with low birth weight (Public Health Outcomes Framework).
	8. Fewer children with high or low Body Mass Index	Indicator: % of children with high or low BMI (National Child Measurement Programme).

Areas for focus	Essential outcomes identified in An Equal Start	Measures
Parenting and parent context enables good parenting and child development	9. Fewer women are exposed to tobacco smoke during pregnancy	Indicator: % of women identified as being exposed to carbon monoxide (CO) during pregnancy. Indicator: % of households with at least one smoker: referred to smoking cessation programmes; who set a quit smoking date; who ultimately quit. (Vital Signs Monitoring, Public Health Outcomes Framework)
	10. More mothers who breastfeed	Indicator: % of mothers who totally or partially breastfeed at initiation, 6-8 weeks and longer (ideally 3-4, 6 and 12 months) (Vital Signs Monitoring). Indicator: % of mothers attending breastfeeding / peer support groups.
	11. More parents are regularly talking to their child using a wide range of words and sentence structures, including songs, poems and rhymes	Measure: The Early Home Learning Environment Index (EHLEI)
	12. More parents are reading to their child every day	Measure: EHLEI
	13. More parents are regularly engaging positively with their children	Measure: Keys to Interactive Parenting Scale (KIPS)
	14. Improved parental responsiveness and secure parent-child attachment	Measure: KIPS
	15. More parents are setting and reinforcing boundaries	Measure: KIPS
	16. More parents are experiencing lower levels of stress in their home and in their lives	Screening - for health professionals: Measure: General Health Questionnaire (GHQ), Patient Health Questionnaire (PHQ-9), or similar (Screening for depression by health professionals)
	17. More parents with good mental wellbeing	Other practitioners: Measure: Life Satisfaction and Affect Balance (OECD measures of subjective well-being)
	18. More parents have greater levels of support from friends and/or family	Measure: Multi-dimensional Scale of Perceived Social Support (MSPSS)

Areas for focus	Essential outcomes identified in An Equal Start	Measures
	19. More parents are improving their basic skills, particularly in literacy and numeracy	Indicator: % of children's centre users with low-level qualifications achieving entry, foundation and intermediate- level numeracy and literacy qualifications.
	20. More parents are increasing their knowledge and application of good parenting	Measure: KIPS
	21. More parents are accessing good work or developing the skills needed for employment, particularly those furthest away from the labour market.	Indicator: % of parents from households where someone is in work Indicator: % % of families identified as willing, ready and able to work in receipt of job-seekers allowance and low income benefits. Indicator: % of parents with increased 'satisfaction with allocation of time'. Indicator: % of families attending and completing 'work readiness' and learning skills programmes. Indicator: % of disadvantaged and all families accessing high quality, affordable early education (National Statistics - Source: DWP/ HMRC/Early Years and School Census).

Outcome

A. Effective outreach and sustained engagement with the wider community, with a particular focus on the most disadvantaged families

Indicators

Percentage of disadvantaged and all families with young children (0–5) registered and who have sustained contact with children's centre (community and population-level measure).

What do children's centres need to do?

Children's centres should collect registration and attendance data for:

1. targeted, and
2. other families who access children's centres.

What do others need to do?

The Department for Work and Pensions (DWP) and health professionals should consistently and accurately share relevant data – including benefits and live birth data – with children's centres, to help them reach and engage with those families who are likely to benefit from services the most.

Local authorities should provide children's centres with data on the number and demographics of families within the children's centre catchment area.

All agencies should work together as part of a holistic approach to identify and engage the most disadvantaged families within the community.

Rationale

We align our evaluation framework with the Ofsted Inspection Framework for Children's Centres[31], which explains how centres will be judged on the extent to which they ease access to high-quality early education through in-house or external provision.

By collating data to support the above indicators, local authorities will be able to evidence how well local children's centres are performing in reaching and engaging all families, and particularly those families identified as being in greatest need.

Versions of the above indicators were used during the children's centres payment by results (PbR) trials. A feasibility study for the payment by results trials[32] found that both of these indicators were measurable. The original wording of the first instruction was: 'percentage of families with children under five registered with children's centres'. However, it was felt that there was a risk that children's centres would focus on quantity, as opposed to quality and sustained contact, with resources diverted from families with the highest need. Local authorities felt that children's centres should measure the level, quality and appropriateness of the support provided to families, and not just the number of registrations. The indicator, which remains measurable, has therefore been adapted to incorporate the quality of engagement and provision (through the proxy measure of 'sustained engagement'). A number of local authorities that participated in our research are continuing to use a measure of outreach introduced during the PbR trials, for the valuable data it provides.

Key frameworks/guidance/initiatives that align with this outcome and measures

- The Core Purpose of Children's Centres[33] is to improve outcomes for young children and their families and reduce inequalities between families in greatest need and their peers.
- Access to services by young children and families is a key judgement made during children's centre Ofsted inspections[34].
- The Sure Start Children's Centres Statutory Guidance[35] states how local authorities should demonstrate that all children and families can be reached effectively, and in turn, can access services easily. Effective outreach based on local needs analysis also needs to be evidenced.

Further information	See corresponding table in the technical report.

Outcomes

1. All children are developing age-appropriate skills in drawing and copying.
2. Children increase the level to which they pay attention during activities and to the people around them.
3. Children are developing age-appropriate comprehension of spoken and written language.
4. Children are building age-appropriate use of spoken and written language.
5. Children are engaging in age-appropriate play.
6. Children have age-appropriate self-management and self-control.

Selected measures

1. Early Years Foundation Stage (EYFS) Profile[36] – associated measures:

- Percentage of children achieving a 'good level of development' (GLD) on the EYFS Profile at age five (population-level measure of school readiness)
- Narrowing the gap between the lowest achieving 20 per cent in the EYFS Profile and all children (population-level measure of reduced inequalities).

2. Non-statutory guidance to help practitioners and inspectors review children's development in the EYFS – Early Years Outcomes[37]/ Development Matters[38].
3. Ages and Stages Questionnaire third edition (ASQ-3)[39], and Ages and Stages: Social and Emotional questionnaire (ASQ:SE)[40].

What do children's centres need to do?

Children's centres should monitor the developmental milestones of children from birth until they transition to primary school using the non-statutory materials to support the EYFS statutory framework, such as Early Years Outcomes[41] or Development Matters[42]. Practitioners may also wish to utilise the DfE-funded Early Years Developmental Journal (EYDJ)[43] with parents, which was developed to supplement the Personal Child Health Record (PCHR), also known as the 'Redbook'[44]. This journal is particularly useful if you know or suspect that your child or a child who you are helping is unlikely to progress in the same way or at the same rate as other children. All of these non-statutory guidelines provide overviews of developmental milestones and have been published to support practitioners with the statutory requirements of the EYFS Framework[45].

Further work is necessary to validate the 'good level of development' and 'narrowing the gap' measures associated with the EYFS Profile, and the non-statutory guidelines[46] to support the EYFS Framework[47] for measurement purposes. The Department for Education is currently consulting on changes to the statutory assessment in the EYFS framework[48] and we will update this guide in accordance with the recommendations of that consultation. In the meantime, EYFS Profile data should be monitored by children's centres to track and compare the longer-term impact of their work to improve outcomes for children.

Work is also in progress to introduce a new integrated check at 2-2.5 years which is likely to include the use of the Ages and Stages questionnaire third edition (ASQ-3)[49] and Ages and Stages: Social and Emotional questionnaire (ASQ:SE)[50], as validated tools to monitor the health and development of all children aged 4 months to 60 months, at different developmental stages. As they are used widely by the health profession, we recommend that children's centre staff work closely with health visitors to use the data from these tools to screen and support children's health and development outcomes and to help deliver the Healthy Child Programme[51]. Guidance to support information sharing between the Department of Health and the Department for Education can be found on the Foundations Years website[52].

What do others need to do?

Local authorities should make EYFS Profile data available to children's centres in an appropriate format for data matching. This data is collected within the local authority so should be achievable.

Local authorities are under a duty to return EYFS Profile data to the relevant government department.

Ideally, data-sharing agreements should be made between families and all early childhood services to enable data linkage for tracking purposes.

The Ages and Stages questionnaire[53] is the validated screening tool used by health visitors to support practice as part of the Healthy Child Programme (HCP)[54]. Health visitors should work closely with children's centres to share data and monitor the developmental progress of children.

Rationale

The good level of development (GLD) measure used within the Government's Social Mobility strategy is the most widely used single measure of child development in the early years. However, recently there have been significant changes to the way children are assessed at the end of the EYFS through the EYFS Profile. In the new EYFS Profile, children are defined as having reached a GLD at the end of the EYFS if they achieve at least the expected level[55] in the early learning goals in the prime areas of learning (personal, social and emotional development; physical development; and communication and language), and in the specific areas of mathematics and literacy.

All of the children's centres that participated in our research were using non-statutory guidance that provided overviews of developmental milestones[56] to support the revised EYFS Framework[57], or a locally-developed tool based on these guidelines, to monitor children's development. The EYFS Profile is aligned closely with the outcomes framework and uses a nationally established measure. We therefore recommend that children's centres continue to utilise non-statutory guidance documents to support the revised EYFS Framework[58] in order to understand and monitor each child's development pathways[59]. However, as the revised (and old) measures[60] associated with the EYFS Profile, and non-statutory guidance to support the EYFS Framework[61], have not yet been validated for use as measurement tools, nor have they been used in recent research or evaluations, we have to reiterate that in order to conduct rigorous service evaluations and research, validated tools should be used. For this purpose we recommend the validated ASQ-3 and ASQ:SE as the most appropriate.

The ASQ-3 is comprised of a series of 19 age-appropriate questionnaires to be completed by parents/carers. The tool has been designed to screen the developmental performance of children between the ages of four and 60 months in the areas of communication, gross motor skills, fine motor skills, problem-solving, personal-social skills, and overall development across time.

The tool received an assessment rating of 'A' for reliability and validity in the assessment by the California Evidence-Based Clearinghouse[62]. The ASQ:SE consists of a series of eight age-appropriate questionnaires to be completed by parents/carers. The screening tool can help determine whether a child's development appears to be progressing as expected.

From 2015, early years settings and health professionals will be required to work together to produce a single comprehensive report for the Integrated Review at age 2–2½[63]. It is likely that the review may draw heavily on the ASQ-3, which is the tool currently being piloted by areas involved in the testing of the integrated review[64].

Key frameworks/guidance/initiatives that align with this outcome and measures

- The statutory framework for the EYFS[65].
- Non-statutory guidance to support the EYFS statutory assessment, such as Early Years Outcomes[66]; Development Matters[67], and; the Early Support Early Years Developmental Journal[68].
- The 'good level of development' on the EYFS Profile and the 'narrowing the gap'[69] indicators at age five are national indicators.
- A critical part of the Healthy Child Programme[70] is the monitoring of children's physical and psychological development from birth through the early years.

- The Integrated Review at age 2–2½[71], to be introduced from 2015, will bring together the two-year-old Progress Check[72] and the Healthy Child Programme (which currently utilises the ASQ), and will use a single evidence-based tool, likely to be the ASQ.
- The Wave Trust report[73] (the addendum to Supporting Families in the Foundation Years) recommends the use of evidence-based tools such as the ASQ and ASQ:SE in reviews of children's development from the earliest possible stages.
- The Big Lottery's 'Better Start' programme[74] aims to improve outcomes for children in three areas of development: social and emotional development, communication and language development, and nutrition.

Further information	See corresponding table in the technical report.

Outcome

7. Fewer children born with low birth-weight.

Indicator

Percentage of term babies born with low birth-weight (population-level measure).

What do children's centres need to do?

Liaise with local health services to obtain data.

What do others need to do?

Health care professionals are responsible for the measurement of low birth-weight.

Local authorities are responsible for collating data.

Rationale

The low birth-weight indicator has been selected as it aligns with existing data collection strategies and measures. Low birth-weight of term babies is included as an indicator for maternity and related pathways in the new Public Health Outcomes Framework[75].

Key frameworks/guidance/initiatives that align with this outcome and measures

- The Public Health Outcomes Framework.
- The low birth-weight indicator is currently collected and published at a national and local authority level via the Office for National Statistics (ONS) Child Mortality Statistics[76]. Data is also available via Public Health England's (PHE) Child & Maternal Health Intelligence Network (ChiMat)[77].

Further information	See corresponding table in the technical report.

Outcome

8. Fewer children with high or low Body Mass Index (BMI).

Indicator

Percentage of children with high or low Body Mass Index (population-level measure).

What do children's centres need to do?

Liaise with local health services to obtain data.

What do others need to do?

Health care professionals are responsible for the measurement of BMI.

Rationale

The BMI indicator has been selected as it aligns with existing programmes. It is part of the National Child Measurement Programme[78], under which children are weighed and measured at school at age four to five. The standardised BMI measure is used to determine if children are underweight, a healthy weight, overweight or very overweight. It is seen as the most valid existing indicator of child weight measurement.

Key frameworks/guidance/initiatives that align with this outcome and measures

The National Child Measurement Programme[79] (see above).

Further information	See corresponding table in the technical report.

Outcome

9. Fewer mothers exposed to tobacco smoke during pregnancy

Indicators

- Percentage of women identified as being exposed to carbon monoxide (CO) during pregnancy (community and population-level measure).
- Percentage of households with at least one smoker:

i. referred to smoking cessation programmes,

ii. who set a quit-smoking date and

iii. who ultimately quit (community and population-level measures).

What do children's centres need to do?

Children's centres are in a unique position to develop trusting relationships and work with families to improve outcomes for children. Part of this is supporting families to help them stop smoking or to cut back.

Children's centres can support data collection by measuring the smoking habits of all users at registration and at early engagement through:

Parent self-report feedback on smoking during pregnancy and/or living in a household in which they are exposed to tobacco smoke.

Parent self-report feedback on living in a household with at least one smoker, as well as the number of people in the household:

i. referred to smoking cessation programmes,

ii. who set a quit-smoking date and

iii. who ultimately quit.

What do others need to do?

Health professionals should work closely with the local authority, smoking cessation programmes and children's centres to develop and provide baseline data. Baseline data ideally will be gathered during the first maternity booking (the expected stage that pregnant women are likely to be in contact with maternity services), where information should be gathered on the:

1. Number of women within the wider community identified (via discussion and/or testing) as being exposed to carbon monoxide during pregnancy.
2. Number of households with at least one smoker:

i. referred to smoking cessation programmes,

i. who set a quit-smoking date and

i. who ultimately quit.

Rationale

We recommend that health professionals working with children's centres aim to collect and collate data on smoking habits and smoking cessation using parent self-report information, given the lack of standardised measurement tools and the sensitivity of undertaking carbon monoxide (CO) tests with parents. There is a high likelihood that smokers, or those who live in households with smokers, would not voluntarily attend children's centres if CO monitoring were a routine part of the service.

However, there are data issues relating to parent self-reported smoking habits, with under-reporting common. Some mothers find it difficult to be open about their smoking habits during pregnancy and following childbirth owing to the pressure on them to quit.

CO breath tests, urine or saliva tests are an immediate and more reliable method of gathering accurate data on the number of pregnant smokers or women with young children exposed to second-hand smoke at home, than self-report measures alone[80]. We therefore recommend that health professionals, as part of statutory services, encourage pregnant women to undertake CO testing as a means of raising awareness of the health risks and ensuring that appropriate smoking cessation support is offered, where appropriate. Corresponding data should be collected and shared. Collating smoking data from health, children's centres, smoking cessation services and administrative data will provide more far-reaching and accurate local monitoring data for local authorities, although efficiently joining-up these data sources will be undeniably challenging without the development of robust data-sharing agreements (see recommendations).

Key frameworks/guidance/initiatives that align with this outcome and measures

'Reducing rates of smoking throughout pregnancy to 11 per cent or less by the end of 2015' is one of the national ambitions of the Tobacco Control Plan (measured at time of giving birth)[81]. This figure is based on the national baseline measurement of 14 per cent from the 2009/10 Department of Health 'smoking status at time of delivery' statistical collection[82]. As part of the plan, there is also support for data collection and monitoring of stop-smoking services.

'Smoking at delivery' is also a key indicator for the maternity pathway of the new Public Health Outcomes Framework[83], with the overarching objectives of increasing healthy life expectancy and reducing differences in life expectancy and healthy life expectancy between communities.

Further information	See corresponding table in the technical report.

Outcome

10. More mothers who breastfeed

Indicators

- Percentage of mothers who totally or partially breastfeed at initiation, 6–8 weeks and longer (ideally 3–4, 6 and 12 months) (population and community-level measure).
- Percentage of mothers attending breastfeeding/peer support groups (community-level measure).

What do children's centres need to do?

Children's centres are in a unique position to develop trusting relationships and work with families to improve outcomes for children – and part of this is supporting mothers to breastfeed, thereby improving breastfeeding rates. Children's centres therefore should work alongside health professionals to improve breastfeeding rates.

Children's centres should liaise with health visitors and midwives to obtain and utilise accurate and appropriate local data on breastfeeding rates at initiation and at 6–8 weeks. If the data provided from health is insufficient for children's centres to see their impact on improving breastfeeding rates, then children's centres should gather baseline and follow-up data on:

i. Breastfeeding initiation and continuation with target and other mothers who register and engage with their children's centre

ii. Attendance rates on breastfeeding/peer support groups.

Children's centres should also ensure that they implement UNICEF's baby-friendly initiative[84].

What do others need to do?

Local authorities should work with health services and children's centres to gather and share baseline data on:

i. New and pregnant mothers

ii. Rates of breastfeeding initiation and continuation within the wider community.

They should also monitor whether early years settings in the area are implementing UNICEF's baby-friendly initiative[85].

Rationale

Breastfeeding initiation and continuation at 6–8 weeks-plus have been selected as indicators based on current data collection methods (as part of vital signs monitoring), and data that is feasible for children's centres to collect (via parent self-report feedback). However, work is needed to validate and refine methods of measuring breastfeeding rates.

We include total and partial breastfeeding in the indicators in acknowledgement that exclusive breastfeeding, although recommended and associated with the greatest health benefits, has low reported rates as it is difficult to achieve by many mothers. Breastfeeding is a learned activity and many new-borns receive formula milk as a supplement until breastfeeding is fully established. Achieving an increase in 'any breastfeeding' in local areas will improve outcomes for children.

There is evidence that measurement of breastfeeding at initiation and continuation (6–8 weeks and longer – ideally 3, 6 and 12 months), based on 24-hours recall, is the optimal method of providing a complete and accurate assessment of breastfeeding practice[86]. This is in line with UK developmental reviews conducted by health professionals[87]. Children's centres can work closely with health services to monitor breastfeeding continuation.

Key frameworks/guidance/initiatives that align with this outcome and measures

- 'Breastfeeding rates' is a key indicator for the maternity pathway of the new Public Health Outcomes Framework[88], with the overarching objectives of increasing healthy life expectancy and reducing inequalities in life expectancy and healthy life expectancy.
- Breastfeeding is a key aspect of the Healthy Child Programme[89], which discusses how breastfeeding reduces the risk of excess weight and associated health problems later in life. Aims of the programme include increasing the proportion of mothers who breastfeed for 6–8 weeks or longer and to make breastfeeding the norm for parents. The associated guidance also recommends that children's centres could make use of experienced breast-feeders as volunteers, and could be a means of making antenatal and postnatal services more accessible to hard-to-reach groups. The programme also encourages the UNICEF's baby-friendly initiative[90] to be adopted by all community providers.

Further information	See corresponding table in the technical report.

Outcomes

11. More parents are regularly talking to their child using a wide range of words and sentence structures, including songs, poems and rhymes.
12. More parents are reading to their child every day.
13. More parents are regularly engaging positively with their child.
14. Improved parental responsiveness and secure parent–child attachment.
15. More parents are setting and reinforcing boundaries.
20. More parents are increasing their knowledge and application of good parenting.

Indicators

- Percentage of parents regularly talking to their child using a wide range of words and sentence structures, including songs, poems and rhymes.
- Percentage of parents reading to their child every day.
- Percentage of parents regularly engaging positively with their child.
- Percentage of parents demonstrating increased responsiveness and parent–child attachment.
- Percentage of parents setting and reinforcing boundaries.
- Percentage of parents increasing their knowledge and application of good parenting.

Selected measurement tools

1. The Early Home Learning Environment Index (EHLEI)[91] to measure outcomes 11 and 12 above (community-level measure).
2. The Keys to Interactive Parenting Scale (KIPS)[92] to measure outcomes 13, 14, 15 and 20 (community-level measure).

What do children's centres need to do?

Children's centres should aim to measure the home learning environment (HLE) with all families who engage. These tools will enable the collection of comparative data for the HLE and positive, responsive parenting.

Children's centres should utilise the EYFS Framework[93], and the supporting non-statutory guides Parents guide to the EYFS Framework[94] and the Early Support Early Years Developmental Journal[95], as means of engaging parents with their children's learning.

What do others need to do?

Early childhood services, including health professionals, and particularly health visitors, can also use these tools to engage with families not yet using children's centres, in early years settings and in the HLE, to assess whether children are experiencing a stimulating HLE at the earliest possible opportunity (KIPS[96] is validated from two months). Partners will need to work closely with children's centres to share data and track families.

Rationale

Hunt et al (2011) stated that there is a 'strong case for early years settings monitoring the early home learning environment more widely'[97].

We have selected the Early Home Learning Environment Index (EHLEI)[98] as it is the most widely used tool in the UK for measuring activities in the home learning environment. It has been evaluated as being the most robust quantitative measure of the home learning environment available[99], and has been proven to predict longer-term educational outcomes for children[100], and social and behavioural development[101]. The index was used in the Millennium Cohort Study (MCS)[102] and the National Evaluation of Sure Start (NESS)[103], and has been a key component of the Effective Provision of Pre-School Education Project (EPPE)[104], and other Government-commissioned research[105]. The EHLEI is also closely aligned with our outcomes framework, covering a number of our domains. In addition, compared to the other shortlisted measures for the home learning environment, the EHLEI is concise and more relevant for use within a wide variety of children's centres[106]. However, further validation of the EHLEI is necessary.

The Keys to Interactive Parenting Scale (KIPS)[107] received an 'A' rating for reliability and validity by the Californian Clearing House[108], and was recommended in the Wave Trust report[109] (the addendum to Supporting Families in the Foundation Years) as a tool to measure secure attachment with infants at 3–4 months. The tool is validated for use with children aged 2–71 months of age[110].

Although KIPS can be used in the home environment, it was designed for family service providers to use in their daily settings with families and young children. The online training system is also cost-effective and would be convenient for busy staff.

NB: Alternative measures that do not require additional fees are included in the corresponding table within the technical report.

Key frameworks/guidance/initiatives that align with this outcome and measures

- The Healthy Child Programme (HCP)[111] emphasises the importance of focusing on parenting and attachment. The guidance proposes that effective implementation of the HCP should lead to strong parent–child attachment and positive parenting, which will result in improved child social and emotional development.

- The importance of early home learning and good parenting were identified as key priorities in the Tickell review[112] of the Early Years Foundation Stage.
- The important role played by parents in taking an interest in their child's early learning, providing early learning materials and activities at home, and spending time helping their child to learn about letters and numbers is also recognised in the EYFS Profile Handbook[113]. The EYFS Framework[114] well as the EYFS Profile and associated non-statutory guidance Development Matters[115] and the Early Support Early Years Developmental Journal[116], have an important and influential role in engaging parents in home learning.
- A report by the Children and Young People's Health Outcomes Forum[117] recommended that the Department of Health (DH) incorporate a new outcome measure into the Public Health Outcomes Framework: the proportion of parents where parent–child interaction promotes secure attachment in children aged 0–2. This recommendation was supported and built upon by the recent addendum to the Government's vision for the foundation years, Supporting Families in the Foundation Years[118], which recommended a number of additional measures of child engagement and attachment, including use of the KIPS to measure mother–baby interaction at 3–4 months in addition to the health visitor assessment carried out at age 6 weeks.

Further information	See corresponding table in the technical report.

Outcomes

16. More parents are experiencing lower levels of stress in their home and in their lives.
17. More parents with good mental well-being.

Indicators

- Percentage of parents experiencing lower levels of stress in their homes and in their lives.
- Percentage of parents with good mental well-being.

Selected measurement tools

Screening tools for health professionals:

1. General Health Questionnaire (GHQ-12)[119], The Patient-Health Questionnaire (PHQ-9)[120], or similar (screening tools).

For children's centres:

1. Satisfaction with Life Scale[121] and Positive and Negative Affect Scale[122] (community-level measure).

What do children's centres need to do?

Children's centres should aim to use the above scales with targeted parents and all parents, at registration and at regular intervals, to monitor improvements with families that engage with centres.

What do others need to do?

Failure to identify mental health issues during the antenatal and postnatal periods poses considerable risk to both women and their children. Evidence suggests that most mental disorders experienced during this period respond well to appropriate and timely early intervention.

Professionals should continue to ask women at their first contact with services in both the antenatal and postnatal periods about past or present severe mental illness, previous treatment by a psychiatrist/specialist mental health team, as well as family history of perinatal mental illness. Health professionals should also consider consistently utilising one of the recommended self-report measures during the antenatal and postnatal periods as part of continual assessment and/or monitoring of maternal stress, anxiety and depression. This data should be made available to children's centres.

Rationale

We highlight the crucial role that health services have to play in achieving and monitoring these essential outcomes, as during field visits it became apparent

that parents are often anxious about discussing their mental well-being openly with children's centre staff through fear of reprisals (such as having their children removed from their care), or though fear of being judged as a bad parent, unable to balance work with raising a family:

"Parents might not want to talk about what's happening at home, and about their stress levels. They might feel like there's going to be a black marker against their name if they admit difficulties."[123]

The majority of children's centre managers and practitioners we spoke to also expressed concern about being expected to measure the mental health of new users. This was firstly because they did not always feel qualified to do so, secondly, because they were frightened of 'opening a can of worms', with no services available to refer them to[124], and finally, because they did not wish to frighten families away from using children's centres in the first place.

Overall, children's centre staff felt that health services were best placed to routinely monitor the mental health of parents at baseline interview as they are a statutory service with broader access to the wider community. Health services also have more extensive and universal contact with pregnant and new mothers. Parents similarly acknowledged that they would 'expect to be asked more sensitive questions by health professionals' than children's centre staff.

The addendum[125] to the Government guidance Supporting Families in the Foundation Years[126] acknowledges that 'assessing and enquiring about intimate and personal details is a highly skilled activity', and therefore recommends that all community midwives and health visitors are trained in the Family Partnership Model[127] and promotional interviewing, so that 'all health professionals are well equipped to detect stress, anxiety and depression during pregnancy'[128].

We therefore recommend that health services consistently measure the mental well-being of mothers, starting from pregnancy.

Please see the technical report for further information about health screening during the antenatal and postnatal periods.

The role of children's centres

Children's centres, as trusted organisations, have a unique and crucial role to play in empowering parents and addressing some of the key underlying stressors and triggers of poor parental mental well-being. To measure their contribution, children's centres should consider utilising simple measures of subjective well-being to support case files. These measures were identified in the recent OECD publications How's Life? Measuring Well-Being[129] and Guidelines on Measuring Subjective Well-being[130], as the most valid means of monitoring users' overall well-being and changes in well-being.
The research suggests there are three main components of subjective well-being: life satisfaction (a measure of how people evaluate their life as a whole, and formerly known as the 'Self-Anchoring Striving Scale' or 'Cantril Ladder'[131]), positive affect and negative affect (a person's feelings or emotional state at a particular point in time)[132].

'Life satisfaction' and 'affect balance' have been selected as the best measures of subjective well-being as people are the best judges of how their own lives are going. There is also extensive evidence that people find it easy to respond to questions on subjective well-being[133]. Research has reported lower non-response rates and found that people generally give similar answers to questions if they are repeated at different times[134]. Studies have also shown that subjective well-being questions are understood in a similar way across cultures[135].

Subjective measures of well-being have been tested against a range of indirect measures of well-being and generally show the anticipated relationship: for example, self-ratings of well-being tend to correspond with levels of the stress hormone 'cortisol' that is produced by individuals as a response to stress[136] (and obtaining self-ratings is an easier and less intrusive method for children's centres to adopt than obtaining stress hormone samples from users). There is also reliable evidence that subjective well-being predicts behaviour (such as suicide and sociability) in a meaningful way[137]. The Cantril Ladder has been evaluated as 'represent[ing] the best available scale for overall life satisfaction'[138].

The Satisfaction with Life Scale[139] is one of the best-tested and most reliable multi-item scales of life evaluation and has a higher reliability than single item measures[140], whereas the the Positive and Negative Affect Scales[141] have been found to be reliable and stable[142].

Measures of subjective well-being have been used in the World Values Survey[143], the European Social Survey[144], the German Socio-Economic Panel[145], the British Household Panel Study[146], the Canadian General Social Survey[147], the Gallup World Poll[148], the European Social Survey[149], and recently by the National Institute of Statistics and Economic Studies (INSEE) and the Office for National Statistics (ONS), as part of their measures of national well-being[150].

Key frameworks/guidance/initiatives that align with this outcome and measures

- A focus on improving parenting has started to infiltrate public policy and practice following the publication of the Healthy Child Programme (HCP)[151]. The HCP instructs for a 'full health and social care assessment of needs, risk and choices by 12 weeks of pregnancy by a midwife or maternity healthcare professional', identifying a range of risk factors, including parents with mental health problems, unstable partner relationships, domestic abuse and stress in pregnancy[152]. An increase in the number of health visitors should help to improve the identification rate of new mothers with postnatal depression and high levels of stress.

- The Core Purpose of Children's Centres[153] states that the health and well-being of parents should be within the remit of centres.

- NICE public health guidance on social and emotional well-being[154] recommends that health professionals in antenatal and postnatal services should aim to identify factors that could negatively affect children's social and emotional well-being, through discussions with parents about their mental health, substance or alcohol misuse, family relationships or circumstances, as well as networks of support. The guidance also recommends that early years practitioners, including children's centres and linked services, should identify factors that may pose a risk to a child's social and emotional well-being, as part of an ongoing assessment of their development.
- No Health Without Mental Health, the mental health strategy for England[155], supports the prioritisation of mental well-being and early intervention across all ages.

Further information	See corresponding table in the technical report.

Outcome

18. More parents have greater levels of support from friends and/or family.

Indicator

Percentage of parents with greater perceived levels of support from friends and/or family.

Selected measure

1. Multi-dimensional Scale of Perceived Social Support (MSPSS)[156].

What should children's centres do?

Children's centres are ideally placed to speak with parents about their social support networks. Centres can be a useful foundation for more insular families. For example, one parent we spoke to during the research talked of how staff at the centre acted as initial sources of support, helping her to build her confidence and make links to other local families with young children:

"I have made so many friends from coming to the children centre, other mums and staff – the children's centre has meant everything to me and helped me through so much".

Children's centres should aim to use the above scale with targeted parents and all parents at registration and at regular intervals.

What should others do?

Early childhood services should work closely to identify need, and refer and share information where necessary.

Rationale

Many identified validated tools were found to measure aspects of social support, such as community-based social support, partner support[157], tangible (instrumental) support – that is, the provision of financial assistance or services – or quantitative measures of social support, such as the number of friends people have to turn to when they need additional support. However, perceived social support is thought to be a better predictor of wellbeing than objective measures[158].

The multidimensional scale of perceived social support (MSPSS)[159] is a subjective assessment of three distinct forms of social support: family, friends and significant others. The scale has been evaluated as having good reliability across a number of subject groups, including pregnant women, adolescents and paediatric residents[160]. The tool is also brief and simple to use.

Although the MSPSS is the most widely used tool to measure social support, and most closely aligns with the outcomes framework, there are a number

of limitations. For example, although the different sources of support within the MSPSS have been found to have strong validity, parents might perceive others not included in the scale as important sources of support[161], such as psychotherapists or practitioners. An evaluation also advised caution when 'comparing perceived sources of support for women and men on the MSPSS subscale mean scores', and for further evaluations with varied clinical samples[162].

Despite these caveats, the 'total score' on the MSPSS has been described in the literature as a 'useful measure of overall functioning and well-being' and the 'relative ease of administering and scoring this measure makes it a good choice for research applications, and might have potential utility in some clinical settings'[163].

Key frameworks/guidance/initiatives that align with this outcome and measures

- Ofsted inspectors, when making their judgements of children's centres, must consider the ways in which the centre helps parents to develop formal and informal networks of support.
- The guidance Supporting Families in the Foundation Years[164] highlighted the significant role that health and community services play in helping families with young children to build their social support networks.

Further information	See corresponding table in the technical report.

Outcome

19. More parents are improving their basic skills, particularly in literacy and numeracy.

Indicator

Percentage of children centre users with low-level qualifications achieving entry, foundation and intermediate level numeracy and literacy qualifications (community-level measure).

What do children's centres need to do?

Children's centres should collect data on the highest qualification levels of all parent users at registration (parent self-report).

Children's centre staff should also monitor attendance at and completion rates of adult learning courses for those targeted parents identified as likely to benefit from courses to improve their basic skills (parent self-report).

What do others need to do?

Adult learning providers should work closely with children's centres to refer, share data and track families' journeys and achievements.

Records of adult basic skills course completion should be provided by adult learning providers to the local authority.

Rationale

We had a clear steer from children's centres managers, staff and users that subjecting all new parents to numeracy and literacy tests on entrance would be impractical and unwelcome, potentially deterring many families from engaging with the centres. Therefore, instead we propose that children's centres gather baseline information on parents' highest qualification level. This is because evidence suggests that for parents with lower qualification levels (up to GCSEs/NVQ 2), having good basic skills in numeracy, and particularly in literacy, is strongly associated with: improved child outcomes[165]; an increase in earnings and increased confidence in applying for jobs[166], and; increased motivation to look for work[167].

On the other hand, for more educated parents, basic skills in literacy and numeracy do not appear to be as important a determinant of child cognitive outcomes[168]. This indicator will therefore enable children's centres to identify which targeted families may benefit from additional support to improve their basic skills.

Key frameworks/guidance/ initiatives that align with this outcome and measures

- As part of Ofsted inspections[169], children's centres are required to evidence effective partnerships with adult training services, and the quality and impact of services in improving outcomes, or sustaining already very good outcomes, for families in terms of providing opportunities for target adults to participate in activities that improve their personal skills, education and employability.
- Reducing child poverty and supporting families' economic well-being is stated as a priority for local authorities, commissioners and leaders of children's centres in the Sure Start Children's Centres Statutory Guidance (2013)[170], which discusses how adult learning to improve basic skills has been shown to help prepare adults for a return to work.
- In November 2012, the Department for Business, Innovation and Skills, as part of the Government's economic policy objective and in line with the Budget Plan, Plan for Growth[171], announced a doubling of funding for English and Maths functional skills qualifications[172]. For adults, the Government has also introduced free Maths and English GCSEs and is continuing to fund basic adult English and Maths courses, while other qualifications are available to support those with lower skill levels.

Further information	See corresponding table in the technical report.

Outcome

21. More parents are accessing good work or developing the skills needed for employment, particularly those furthest away from the labour market.

Indicators

- Percentage of parents from households where someone is in work (community and population-level measure).
- Percentage of families identified as willing, ready and able to work in receipt of Jobseeker's Allowance and low income benefits (community-level measure).
- Percentage with increased 'satisfaction with allocation of time' (community-level measure).
- Percentage of families attending and completing 'work readiness' and learning skills programmes (community-level measure).
- Percentage of disadvantaged and other families accessing high quality early education (community and population-level measure).

What do children's centres need to do?

Children's centres should regularly collect evaluation data on employment statistics, benefit claimants, work-related well-being and employability from targeted and other families engaging with children's centres (for sources, please see the technical report).

Children's centres should also capture data on their efforts to either provide high quality child care directly or support parents to access such provision elsewhere, and on the volunteering and training opportunities they offer parents either within the centre or via partners in the wider community.

What do others need to do?

DWP should consistently and accurately share relevant data to help children's centres identify and engage with families who are likely to benefit from engaging with children's centres.

Local authorities should provide data to children's centres on benefit and Jobseeker's Allowance claimants within the wider community, as well as data on children using funded childcare provision (from the Early Years and Schools Census).

The quality of early education and care settings are most commonly assessed through Ofsted inspection reports, the Environment Rating Scales (ERS) and Quality Assurances Schemes used by local authorities and early childhood providers. A report by the University of Oxford, the Daycare Trust and A+ Education Ltd[173], examining how to improve quality in the early years,

concluded that no single measure reflected all aspects of quality. A broad range of tools therefore should be used and administered over time. However, research studies have found the ERS tools to be associated with children's outcomes, whereas Ofsted scores for early years settings did not predict children's later life outcomes[174]. The report by Mathers et al (2012) therefore recommended that local authorities need to be supported by central government, and providers need to be supported by local authorities and provider representative bodies in using a broad range of quality measures[175] to assess the quality of settings.

Rationale

The percentage of families/households in work and in receipt of income-related benefits is a proxy for the conditions of work as it indicates that any employment accessed fails to pay an adequate family living wage and/or provides insufficient working hours.

The quantitative indicator measuring whether or not more families engaging with children's centres self-identify as being willing, ready and able to work will enable children's centres to evidence 'distance travelled' by families, particularly during the current economic climate in which jobs are harder to come by and employers are increasingly risk-averse, offering more part-time, short-term and zero-hour contracts. Other factors beyond the control of children's centres and linked services, such as a lack of good working opportunities in the area, can also affect the achievement of the long-term goal of families obtaining and sustaining 'good work'.

There are no validated tools that measure employability as a whole (soft employability skills and attributes – personal, social and transferable skills relevant to all jobs and that represent stepping stones towards obtaining and retaining good work, as opposed to technical skills and qualifications). A number of reviews[176] indicate that no set of indicators for the measurement of soft outcomes linked to 'employability skills' can be 'fit for purpose' across all learning aims and populations.

The OECD well-being study[177] compared a number of indicators to measure work–life balance. We recommend the use of the 'satisfaction with allocation of time' indicator included in that review. This indicator, based on the European Quality of Life Survey[178], is broad in its remit and is likely to be relevant for more users of children's centres compared with other indicators that the study recommends[179].

We include a measure of access to high-quality early learning provision as the availability of childcare (or lack of it) is a practical issue that could facilitate/prevent families from accessing good work, developing appropriate skills or engaging with children's centres altogether. Research has also found that high quality provision is particularly important for children from disadvantaged backgrounds, helping to lessen the effects of social disadvantage[180].

Key frameworks/guidance/initiatives that align with this outcome and measures

- Supporting Families in the Foundation Years[181] draws attention to the strong link between reducing child poverty and parental employment. Children's centres can help families to access a range of work-focused services in their community including benefits advice, adult and community learning, careers advice, volunteering opportunities, and employment support.
- The Sure Start Children's Centres Statutory Guidance[182] states that reducing child poverty and supporting families' economic well-being should be a priority for local authorities, commissioners and leaders of children's centres. Children's centres are required to forge strong links with Jobcentre Plus.
- The DWP's 2011 report Work-focused services in children's centres[183] recommended that 'children's centre staff and managers need to have child poverty at the forefront of their thinking and understand that employment can provide a route out of it'. The report also recommended that Jobcentre Plus services are well positioned to deliver work-focused services in children's centres.
- Demonstrating efficient partnerships with employment services features within the Ofsted inspection framework[184]. Children's centres are also expected to demonstrate the effectiveness of work to provide opportunities for target adults to participate in activities that improve their personal skills, education and employability, including volunteering opportunities.
- As part of the Troubled Families programme[185], the government has pledged to work with local authorities to 'put adults on a path back to work'.
- The Children's Centre All-Party Parliamentary Group report[186] highlighted the 'significant role' that children's centres can play in supporting families on the lowest incomes, through linking parents to employment opportunities and support, and providing training and volunteering opportunities.

Further information	See corresponding table in the technical report.

5. Practical use

5.1 The need for an approach based on proportionate universalism

The core purpose of children's centres, as set out in the Statutory Framework for Children's Centres[187], reflects the fact that there are children from all socio-economic backgrounds – from disadvantaged to privileged – who are not reaching their full potential. However, there is a 'socioeconomic gradient' in health. This term refers to how health outcomes improve as a person's economic, social and work status increases. To reduce the steepness of the socioeconomic gradient in health, interventions must be universal, but with a scale and an intensity that is proportionate to the level of disadvantage. We call this proportionate universalism. Greater intensity of action is likely to be needed for those with greater social and economic disadvantage – in other words those families who are in most need of intervention and support, or who may be unlikely or unwilling to access such help. However, focusing solely on the most disadvantaged will not reduce the health gradient. It will only tackle a small part of the problem. We therefore urge an approach based on proportionate universalism, supporting all families to thrive.

5.2 The need for a whole-system approach

To achieve positive outcomes for all children, particularly during this difficult economic climate, there needs to be a whole-system approach. Local authorities, health and well-being boards, and their local partners, with strong leadership across all agencies and levels, need to take a more holistic and preventative approach to working with babies, children and families – pooling budgets, resources and expertise.

As organisations that build a trusting relationship with families and engage with parents on a full range of issues[188], children's centres are ideally placed to be at the heart of local area activity working to improve outcomes for children and families. It is vitally important to ensure collaboration between children's centres, local health services, particularly midwifery care and health visitors, as well as with wider partners such as Jobcentre Plus, housing, adult learning and other early childhood services, including those offered by the voluntary sector. Consistent, collaborative partnerships to achieve and monitor the essential outcomes will improve the health and development of children in the local area.

5.3 Information and work to support the outcomes evaluation framework

To support this outcomes evaluation framework, practitioners should strive to collect supplementary information for all users as part of the registration data collection process. The following data can be used alongside the measures included in this guidance to report on changes for different sub-groups:

- Demographic information – age, gender, relationship status, number of children, ethnicity, household size
- Material conditions – household income, employment status and housing quality
- Quality of life – health status, disability, healthy diet and lifestyles.

As a result of the Localism Act 2011, local authority early years and adult services commissioners also have the opportunity to address and improve some of the broader societal and structural factors that predict family connectedness, such as access to: green spaces; book and toy libraries; resourced children's centres; adult learning opportunities; and the retailing landscape of high streets. These factors interrelate with and influence the essential outcomes. A joint strategic action and measurement plan that spans different levels (individual, family, neighbourhood, community and socio-political context), therefore has the potential to make a very real and sizeable difference to the lives of children and families within local authority areas.

5.4 Choosing which of the outcomes to focus on

The drivers of children's health and development are complex and interrelated: all of the essential outcomes are thus complementary, like pieces of a jigsaw, gathering validity and meaning when pieced together to produce a bigger picture. Work to address and measure any one of the essential outcomes is likely to benefit a number of children and families. Indeed, some of the key drivers – such as maternal education, a stimulating home learning environment and breastfeeding – buffer against other negative experiences or exposures, and have a comparatively larger influence on child health and development than some of the other outcomes. (For further information see An Equal Start and the technical report.) However, by focusing on only a selected number of the essential outcomes, the effects will be limited: it will neither enable improvements on a large scale nor narrow the health and development gap within local areas.

Depending on local need, children's centres can choose to focus on a particular number of the essential outcomes – for example, in areas with disproportionately high levels of postnatal depression, improving health and well-being and reducing stress are likely to require additional resources and focus. However, such targeted work ideally needs to occur within the context of a wider-reaching approach that addresses all of the essential outcomes.

5.5 The importance of using the measures consistently

Children's centres and local authorities should strive to use the measures included in this guidance consistently across all of the children's centres in the area, in order to facilitate benchmarking and comparisons. Altering the way a measurement tool reads – for example, by changing the wording, or omitting or altering the sequence of questions – will affect the tool's validity. It is also crucial that children's centre staff are confident in data collection and handling; developmental training will be necessary where this is lacking.

Children's centres should refrain from attempting too much and 'muddying the water'. The aim of this guidance is to help children's centres to focus resources on measuring – to a high standard – what matters the most in terms of outcomes for children and families.

5.6 Evidencing distance travelled

As previously discussed, outcomes can take some time to evidence since they are often linked to long-term objectives. Indeed a number of the outcomes within the outcomes framework are dependent on children's centres demonstrating improvements over time. It is therefore sometimes necessary for children's centres to achieve a number of process, output and interim (short-term) outcome indicators as stepping stones before having the opportunity to achieve longer-term outcomes. Where appropriate, these have been included within the tables of this guide.

It became clear throughout the research that children's centres staff are keen to incorporate some of their innovative practice undertaken as part of 'preparatory' work with parents into their evaluation frameworks. There is ample scope for children's centres and linked services to continue to incorporate and develop innovative practice to help users on their journey towards improved outcomes. These inputs, processes, outputs, short-term outcomes and innovative practices can be measured and thus demonstrated in a number of ways:

- Using existing data, such as registration documents, activity records, participation and attrition rates, as well as local area-level data
- Using quantitative methods, including surveys, questionnaires, measurement scales, and feedback forms
- Using qualitative methods that typically capture 'soft data' – outcomes that are not easily defined or assessed – but that can provide useful evidence of the ways in which children's centres are working towards achieving longer-term outcomes. People's opinions and views on the perceived value of services, as well as any changes of behaviour, can be recorded and monitored through the use of case files, questionnaires, learning journeys, interviews and focus groups, informal conversations and feedback forms.

Children's centres need to use standardised, quantitative measures to be able to demonstrate progress towards the essential outcomes effectively. However, we and practitioners are well aware that quantitative indicators can never truly capture the complexity of work done within centres, such as raising parents' aspirations for both themselves and their children, nor the context of people's everyday lives. Combining 'hard' quantitative and 'soft' qualitative data can help to provide the context – the story of the family behind the quantitative data – and greater evidence of improvements in child and family outcomes.

Understanding the terms:

Process indicators

These measure the ways in which activities undertaken by the centre or linked services are provided.

Output indicators

These measure the quantity and efficiency of activities undertaken by the centre or linked services.

Interim (short-term) outcome indicators

These are the 'stepping stones' by which distance travelled/ progress made can be assessed on the journey to longer-term outcomes being achieved. Often, shorter-term outcomes need to be achieved and evidenced before longer-term outcomes can be realised.

Throughout our research, we have come across examples of new and emerging tools that have been developed to help children's centres capture individual and family changes in a more standardised fashion. During our field visits, the Outcomes STAR[189] and Soft Outcomes Universal Learning (SOUL)[190] tools were regularly mentioned as being easy to use and helpful. Research has found the Outcomes STAR to have good reliability[191]. However, both tools come with purchasing and/or training costs, and further validation of the tools is required.

5.7 Tracking families

It is important that early years providers work together to track and monitor each family's journey into and out of children's centres in order to help evidence impact, prevent duplication of baseline data and avoid families being re-referred to the same interventions. Developing effective tracking systems will also enable services to better evidence long-term and sustained outcomes.

Ideally, local authorities will be supported by central government to ensure that early childhood services can agree appropriate consent for data linkage with parents. This will enable the implementation of appropriate tracking systems, linking children's centre outcomes data with EYFS Profile data held by local authorities and the Department for Education, as children and families transition from early childhood services to school and beyond.

6. Embedding the measures

Throughout the course of the research, we have been made aware of some of the difficulties children's centres face when attempting to measure impact. To embed and measure the outcomes framework successfully, these challenges will need to be overcome. Recurring measurement challenges include:

- Not all services share data reliably and accurately, often as a consequence of data protection and confidentiality guidelines. Health services, social care, the Department for Work and Pensions and schools were most frequently cited as not always sharing adequate data. However, successful data-sharing is reported where good and trusting relationships have been nurtured, indicating that this challenge can be overcome.

- Data provided from different sources is sometimes not accurate and refers to different geographic areas. In these instances, the data is not in a useable format for children's centres. One children's centre manager told us:

" Out-of-date and fragmented data is an issue: some data refers back to 2010, or 2008; it doesn't reflect the current population and doesn't overlap with our children's centre data. It doesn't marry with local knowledge and local trends, which makes it difficult to make accurate comparisons. Yet everyone's looking at children's centres to make sense of all this information." [192]

This further complicates the job of outreach and family support workers. However, we did see evidence of excellent partnership working that eased these data-sharing issues. This was characterised by regular data-sharing meetings and supplemented with simple and efficient protocols for data-sharing as and when new information became available.

- Data is often collected and collated in isolation and not drawn together, so there is duplication of work or sometimes conflicting information presented.

- Families are entitled to access services that are based in areas convenient for them, so parents/carers can thus be registered with and use a number of different children's centres, sometimes across local authority boundaries. Furthermore, certain areas of the country, such as London, typically have higher proportions of transient families, which makes achieving and measuring sustained contact and outcomes particularly challenging.

- There is a lack of standardised software systems: a variety of software systems to capture data are used by centres and services, which makes comparison and matching of data challenging.

- Children's centres spoke of the difficulties in obtaining reliable data from parents, especially when measurement tools seem to focus on 'fault-finding'. For example, there is a tendency for only satisfied service users to return programme feedback forms. However, we found evidence of children's centres devising innovative ways to obtain more reliable data, such as recruiting 'parent mentors' and a 'Big Brother' room utilising space and technology to appeal to fathers. Another limitation of measuring is for professionals to be given answers that they don't believe to be true. For example, one children's centre user told us: "I tell them I don't smoke, then go out for a cigarette". This is known as 'social desirability bias' (see box).

- Another challenge is that some service users do not read English or are unable to read, resulting in users occasionally missing out some or all of the questions, or becoming fearful of what they are being asked to complete.

Understanding the terms:

Social desirability bias

The tendency of respondents to answer questions in a way that they consciously or unconsciously believe would cause others to think better of them.

- Some professionals spoke of feeling uncomfortable working through questionnaires, designed to gather baseline data, with families so soon after they start engaging with the centre or service. They fear it will deter families from accessing the centres, or alternatively that families will feel compelled to respond in order to access a service. Our research found that overall, parents were happy to provide feedback, as long as they understood the reasons for the data collection, that it wasn't going to have negative implications for them, and that it wasn't too arduous or time-consuming.

- Professionals do not always feel competent in using quantitative measures and sometimes fear the use of numerical techniques.

- Perverse incentives were also mentioned as a potential risk. For example, there is a risk that centres focus resources on engaging families who are easy to reach or support, as opposed to those who would benefit the most.

To successfully embed the IHE's outcomes framework and associated measures, a whole-system approach will be necessary. Data and partnership challenges, as described above, as well as issues regarding access and provision, will need to be addressed. We thus make a number of recommendations for further research where gaps or weaknesses have been identified (please see the technical report), and for government, decision-makers and practitioners.

6.1 Key recommendations for government and local authority decision-makers:

1. Children's centres are highly valued by families and are successful in building trusting relationships. They are one of the key vehicles through which parents can be engaged in discussions about parenting and the context in which parenting takes place – the most significant influences on children's outcomes. To embed the outcomes framework and associated measures successfully, it is thus imperative that commissioners of early years services ensure that family-centred services are available and accessible to all families within the locality.

2. Supporting families to support their children's learning and development is one of the most important things we can do to improve outcomes for children. It is vital that national and local government policy and practice continues to recognise the importance of improving parental skills and employability as a crucial aspect of achieving school readiness, and that children's centres can uniquely facilitate access and engagement to adult learning courses and providers.

3. Local authorities need to recognise the value that early intervention can play in reducing long-term costs, and to invest in children's centres as hubs for local improvement activity.

4. We reinforce the recommendation made in the Sure Start Children's Centres Statutory Guidance (2013)[193] that local authorities and commissioners of health services develop or strengthen local partnership agreements and information-sharing protocols between the Government – particularly the DWP, local authorities, health, and children's centres and linked services to ease and enable 'effective sharing of data, whilst ensuring that the requirements of the Data Protection Act 1998, and other relevant legal provisions, are complied with'[194].

5. Central government should support local authorities to ensure that early childhood services can agree appropriate consent for data linkage with parents to enable appropriate tracking systems.

6. Families are not restricted to accessing services within geographical boundaries. It is important that local authorities, children's centres and key partners agree joint outcome targets and work together efficiently to track families to the best of their ability in order to avoid double-counting families, and to help evidence long-term and sustained outcomes.

7. Universal measurement of maternal well-being is futile if mental health services are not available to support those identified as potentially benefitting from such provision. Local authorities and NHS agencies should ensure that there is sufficient provision to match identified need.

8. Practitioners need to feel confident in data collection and measurement, and the reasons for doing so. Training to inform, support and develop staff in this area will be necessary.

9. The recent report of the All Party Parliamentary Sure Start Group (Sure Start APPG)[195] included a note on the registration of births in children's centres. There is current provision of birth registration within children's centres in Bury, Manchester and York, and benefits include improved reach, sustained engagement, reduced stigma and increased father involvement. We support the Sure Start APPG inquiry recommendation for cross-governmental political commitment for the provision of birth registration within children's centres.

6.2 Key recommendations for practitioners

1. The reliability and accuracy of parent self-report data can be improved if children's centres build trusting relationships with families, explaining the purpose of the data collection and how it can help professionals to find the ways and means to help them if they need or want further support.
2. Children's centres and health services need to ensure the context of data collection is as non-threatening and non-judgemental as feasibly possible when collecting parent self-report data in order to overcome data challenges, including unreliable and missing data.
3. Where measurement tools rely on parent self-report data, professionals should work through questions with users who require additional support.
4. Children's centres and partner agencies should develop consent procedures with parents to ensure data can be shared appropriately and confidentially between children's centres and other services.
5. Early childhood services should work closely together to share good practice knowledge, particularly in assessing and detecting parental stress and mental health problems.

6.3 Testing the measures and developing a composite measure

The ideal next step would be to start to embed this evaluation framework within a number of local authorities. Children's centre managers and commissioners within a number of local authorities would ideally work with health and well-being boards to embed the framework and ensure good inter-agency collaboration. This would enable areas to measure the effectiveness of such a multi-agency approach on a wide population basis.

Further research would compare longer-term effects for children and families engaging with participating children's centres (that is, children's centres within local authorities that were embedding the outcomes framework and implementing a whole-system approach), with a controlled comparison group of children and families, matched with a range of characteristics, who were engaging with children's centres in non-participating local authorities. Longer-term impacts could also be measured by the EYFS Profile at age five.

Such embedding work would support the development of a new, shorter and tested composite measure of the essential outcomes for children's centres to use. The IHE will be considering this as part of a programme of ongoing research.

6.4 Developing an electronic tool

Throughout the course of the research we repeatedly heard the limitations of existing data systems. For example, the IT systems used by Health, such as the Public Assistance Reporting Information System (PARIS), and often-used TRIBAL or E-Start databases used by children's centres, are not integrated, resulting in duplication of data and outcome tracking difficulties.

As new research and evaluation studies emerge, it will be necessary to update and revise the outcomes framework. An electronic version of the outcomes framework will enable it to become a 'live' document that can be edited easily. There is thus scope for a feasibility study to examine the potential for developing an integrated digital version of the outcomes framework, which children's centres and parents could use to input observation and assessment data. An e-outcomes framework could potentially complement or integrate with the new digital version of the Personal Child Health Record (PCHR)[196] or 'e-Redbook' (the UK's first digital Personal Child Health Record that includes material from the Healthy Child Programme).

6.5 Identifying the programmes and activities that impact the essential outcomes

Using measures successfully is an important part of understanding and therefore improving services for children and families. However, measurement on its own very rarely leads to improvements, much in the same way that money cannot be earned just by counting it.

Children's centres now know what outcomes they should be working towards and why, and which ones are the most appropriate, currently available methods to monitor and measure their impact. A further crucial step, therefore, is to understand and promote the how: identifying the programmes and activities that impact and best support the achievement of the essential outcomes. We hope that the work of the Early Intervention Foundation (EIF) will meet these needs and we intend to work closely with them to ensure that a coordinated set of messages is received.

Appendix A – Glossary

Activities – The actions and services as a result of inputs (see 'inputs' below).

Baseline – The starting position of a service or programme, based on a range of indictors, and ideally before any service has been offered. Baseline information can help services to monitor changes and improvements, attributable or at least partially attributable to the service/intervention offered.

Benchmark – An externally-agreed comparator to compare performance between similar services or areas.

Children's centre – The statutory definition is: A Sure Start Children's Centre is a place or a group of places: which is managed by or on behalf of, or under arrangements with, the local authority with a view to securing that early childhood services in the local authority's area are made available in an integrated way; through which early childhood services are made available (either by providing the services on site, or by providing advice and assistance on gaining access to services elsewhere); and at which activities for young children are provided[197].

Community-level (group) measure – For the purposes of this report, these are measures at the level of populations served by children's centres and linked services – typically, this will be counts of individuals/ households aggregated up to a community (group) level. Practitioners utilising community-level measures will be part of the 'bigger picture' of measuring children's outcomes.

Early childhood services – Early years provision (early education and childcare); social services functions of the local authority relating to young children, parents and prospective parents; health services relating to young children, parents and prospective parents; training and employment services to assist parents or prospective parents; and information and advice services for parents and prospective parents.

Indicator – A succinct descriptor that aims to clearly describe, compare and improve an activity or service. They indicate that a particular outcome has occurred. Indicators need to be quantifiable in some way and appropriate to the outcome.

Interim (short-term) outcome – A 'stepping stone' by which distance travelled/progress made can be assessed on the journey to longer-term outcomes being achieved. Often, shorter-term outcomes need to be achieved and evidenced before longer-term outcomes can be realised.

Inputs – The resources, including capital, staff, volunteers, facilities and partners, that are used to plan, implement and run an activity or service.

Monitoring/Measuring – The process of regular follow-up for specific indicators, with a view to action when a particular threshold is reached or crossed.

Outcome – A measurable change, sometimes attributable, or partly attributable, to an earlier intervention. Outcomes and distance travelled, as a result of inputs, outputs, activities and interim (short-term) outcomes, can be measured using outcome indicators or measurement tools.

Outcome indicator – A measure that helps evidence whether outcomes are being achieved and whether things are changing in the way anticipated.

Outcome measure – A tool or method (that is, calculations made based on outcome indicators and descriptors), that provides information on a change as a result of an activity or service.

Outcome monitoring tool – For the purposes of this report, a specific, validated instrument to collect information on outcomes.

Output – The productivity of activities and services, such as the number of families accessing services and the frequency/quality of activities and services offered.

Output indicator – These measure the quantity and efficiency of activities undertaken by the centre and/or linked services.

Population-level measure – For the purposes of this report, a measure on the scale of local authority/county area populations. Typically, this will be counts of individuals/households aggregated up to a community (group) population level. Practitioners utilising population-level measures will be part of the 'bigger picture' of measuring children's outcomes.

Pre-measuring – The gathering of baseline data, which forms part of the initial assessment when meeting the family to gather information on their needs to determine how best to support them.

Post-measuring – Gathering of data at the end of specific interventions or work with families (or members of families), or at regular intervals. Measures can also be used after the work has stopped to see if positive changes in behaviour have been sustained and whether families are able to cope with new challenges.

Process Indicator - These measure the ways in which activities undertaken by the centre or linked services are provided.

Qualitative measure – A measure that is descriptive in nature. It considers information which can be observed but not measured.

Quantitative measure – A measure that involves a numeric value and considers data that can be quantifiably measured.

Reliability – Indicators and measures should produce consistent results when replicated by others. There are two main ways to measure reliability: internal consistency, which concerns the extent to which different items on an overall scale or measure agree with one another, and is assessed through examination on inter-item correlations; and test-retest reliability, which involves administering the same question to the same respondent more than once, but at different times, to test for consistency.

Screening/diagnostic tool – Tools for use with individuals and that provide information on the individual progress of users. Typically, a cut-off point will be provided to determine whether or not additional support or referral is required.

Setter bias – Bias that occurs due to the person asking the questions having some vested interest in the answer received, so that they might consciously or unconsciously direct the respondent to answer the question in a certain, favourable way.

Validity – Indicators and measures should capture the concept/information that they purport to measure. This can be measured through face validity (do the respondents judge the items to be appropriate?), convergent validity (does the measure correlate well with other proxy measures for the same underlying concept?), and construct validity (does the measure perform as expected in ways theory suggests it should?).

Validity and reliability testing – Research and evaluations that test whether or not a tool is valid and reliable using statistical and non-statistical tests (see 'validity' and 'reliability' above and 'psychometric properties' in the technical report).

Outcome	Measure description(s)	Measure currently widely used within children's centres / local authorities in England	'Gold Standard' measure*	Satisfactory measure**
A. Effective outreach and sustained engagement with the wider community, with a particular focus on the most disadvantaged families	1.% of disadvantaged and all families with young children (0-5) registered and who have sustained contact with children's centre (community and population - level measure).	✔		✔ The indicators have been adapted slightly to incorporate the quality of engagement and provision (through the proxy measure of 'sustained engagement'), thus the measure will require additional testing.
1. All children are developing age appropriate skills in drawing and copying	1. 'Good level of development' indicator - % of children achieving a 'good level of development' on the EYFSP at age 5	✔		✔
	2. 'Narrowing the gap' indicator - narrowing the gap between the lowest achieving 20% in the EYFSP and all children	✔		✔
	3. Early Years Foundation Stage Framework (EYFSF) and supporting non - statutory guidance (typical behaviours at different developmental milestones).	✔		✔
	4. Ages and Stages Questionnaire (ASQ - 3; ASQ:SE).	✔	✔	
2. Children increase the level to which they pay attention during activities and to the people around them	See outcome 1			
3. Children are developing age appropriate comprehension of spoken and written language	See outcome 1			
4. Children are building age appropriate use of spoken and written language	See outcome 1			
5. Children are engaging in age appropriate play	See outcome 1			
6. Children have age appropriate self - management and self control	See outcome 1			
7. Fewer children born with low birth - weight	1. % of term babies born with low birth weight	✔	✔	
8. Fewer children with high or low Body Mass Index	1. % of children with high or low Body Mass Index (standardised BMI measure	✔	✔	Considered gold Standard measure but further research required to determine cross-cultural validity.

Outcome	Measure description(s)	Measure currently widely used within children's centres / local authorities in England	'Gold Standard' measure*	Satisfactory measure**
9. Fewer mothers are exposed to tobacco smoke during pregnancy	1. Smoking status at time of delivery indicator	✔	Biochemical measures of CO levels are thought to be the gold standard measure - but not practical for children's centres.	✔
	2. % of women identified as being exposed to carbon monoxide (CO) during pregnancy	✔		✔
	3. % of households with at least one smoker: referred to smoking cessation programmes; who set a quit smoking date, and' who ultimately quit	✔		✔
10. More mothers who breastfeed	1. % of mothers who totally or partially breastfeed at initiation, 6-8 weeks and longer	✔	✔	
	2. % of mothers attending breastfeeding / peer support groups	✔		✔
11. More parents are regularly talking to their child using a wide range of words and sentence structures, including songs, poems and rhymes	1. The Early Home Learning Environment Index (EHLEI)		The Home Observation for Measurement of the Environment (HOME) is considered the 'Gold Standard' measure of the home environment, but is not practical for routine use within children's centres.	✔
12. More parents are reading to their child every day	See outcome 11			
13. More parents are regularly engaging positively with their children	1. The Keys to Interactive Parenting Scale (KIPS)		The Home Observation for Measurement of the Environment (HOME) is considered the 'Gold Standard' measure of the home environment, but is not practical for routine use within children's centres.	✔
14. Improved parental responsiveness and secure parent-child attachment	See outcome 13	Ainsworth's Strange Situation measure is considered the 'gold standard' measure for this outcome, but again not practical for routine use within children's centres.		
15. More parents are setting and reinforcing boundaries	See outcome 13			
16. More parents are experiencing lower levels of stress in their home and in their lives	1. General Health Questionnaire (GHQ-12) / Patient Health Questionnaire (PHQ) or similar 2. Life Satisfaction and Affect Balance indicators	✔	Further work is required to develop and/or validate a reliable predictive measurement tool for routine clinical assessment. Measures of mental health not deemed appropriate for children's centres.	✔
17. More parents with good mental wellbeing				

Outcome	Measure description(s)	Measure currently widely used within children's centres / local authorities in England	'Gold Standard' measure*	Satisfactory measure**
18. More parents have greater levels of support from friends and/or family	1. Multi-dimensional Scale of Perceived Social Support (MSPSS)			✔
19. More parents are improving their basic skills, particularly in literacy and numeracy	1. % of children centre users with low-level qualifications achieving entry, foundation and intermediate level numeracy and literacy qualifications			✔
20. More parents are increasing their knowledge and application of good parenting	See outcome 13			
21. More parents are accessing good work or developing the skills needed for employment, particularly those furthest away from the labour market.	1. % of families in work	✔	✔	
	2. % of families identified as willing, ready and able to work in receipt of job-seekers allowance and/or low income benefits	✔		✔
	3. 'satisfaction with allocation of time' indicator			✔
	4. % of families attending and completing 'work readiness' and learning skills programmes	✔		✔
	5. % of families accessing high quality, affordable early education	✔		✔

*' Gold standard' measures refer to measures: for which there are published peer-reviewed studies that have demonstrated that the measure is highly reliable and valid, and; that appear suitable for use within childen's centres.

** 'Satisfactory' measures refer to measures: that require additional validation and/or modification, or; where identified 'gold standard' measures are not deemed practical for use within children's centres. Further information to support this summary table can be found within this children's centre guide and the technical report.

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