



**narrowing
the gap**
in outcomes

early years (0–5 years)

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Key messages from the review

Has the gap been narrowed?

There is considerable evidence to suggest that interventions in the early years can improve **cognitive outcomes** for children, and narrow the gap. Whilst the short-term outcomes from such interventions are clear, there is mixed evidence about whether such gains are sustained, although there is evidence of positive longer-term outcomes (e.g. increased employment and higher socio-economic status) which contribute to the economic wellbeing of children and young people.

The literature also indicates that gains can be made in terms of narrowing the gap in the areas of **language and literacy development** by intervening in the early years.

There is considerable evidence which indicates that the gap in **social and behavioural development** between disadvantaged children and other children can be narrowed by intervening in the early years. Interventions with parents and directly with children have been shown to lead to improved outcomes. However, there is also some recent evidence to suggest that the *most* disadvantaged may be the least likely to benefit in terms of social and behavioural development, either due to problems experienced by parents themselves and/or because such parents are least likely to become, or to remain, engaged with programmes. The literature indicates that interventions may be effective for specific groups, such as ethnic minority groups, those with autism and those with identified social, emotional and behavioural problems. Again, the sources examined suggest that there is mixed evidence about whether social and behavioural developmental gains from intervening in the early years can be sustained, and although there is convincing evidence of long-term impacts (e.g. reduced criminal behaviour and rates of offending), there is also evidence that the gains can be lost if they are not consolidated at primary school.

Although far less robust than the evidence relating to cognitive and social/behavioural outcomes, there is evidence that intervention in the early years can have positive outcomes for children in a number of **health-related areas**:

- improving **physical health**
- preventing incidents of **child abuse and neglect**

- increasing **self-esteem**, especially in relation to disadvantaged and vulnerable groups
- preventing **teenage pregnancy**
- preventing **clinically significant conduct disorders**, particularly in disadvantaged and vulnerable groups. There is also some evidence which suggests that gains can be both short and medium term.

How has the gap been narrowed?

Pre-school experience enhances the all-round development of children, and especially those who are at risk of later educational failure (e.g. due to SEN or disadvantage). There are several factors that contribute to such positive outcomes:

- There is much robust evidence that **high quality pre-schools** produce the best outcomes for children. Common characteristics of those settings that produce the best outcomes for children include highly qualified staff, high levels of parental involvement and seeing cognitive and social development as complementary.
- The **type of pre-school provision** has an impact on outcomes. There is evidence of better cognitive and social/behavioural outcomes for children who attend integrated centres and nurseries, and they are especially beneficial for children ‘at risk’.
- The **duration of attendance** at pre-school is important and the longer the child attends the better the intellectual outcomes. On balance, the literature also indicates that early entry to pre-school is more likely to benefit than harm children.
- There are **specific characteristics of effective out-of-home provision for children from birth to three**. These include a consistent relationship with a caregiver, parental involvement, a focus on the child as an individual and attention to the developmental stage of the individual.
- Effective **strategic management** by those overseeing individual or group settings helps improve outcomes for children. This includes providing relevant staff training and support, auditing local need, identification and targeting of those with special needs, and the monitoring of outcomes.

The literature demonstrates that a **stimulating home learning environment** benefits both the cognitive and social development of children, that parents are an important

influence of later outcomes, and that positive outcomes for them are reflected in the outcomes of their children. Therefore, **interventions that address the issues faced by children and their families** can contribute to good outcomes. Such interventions include:

- **Comprehensive services:** these can address all the negative factors that tend to cluster around disadvantaged children and families.
- **Interventions focused on the whole family:** these are effective in improving outcomes for children, including those who are disadvantaged. Although outcomes are more positive when interventions are earlier, the literature suggests that supporting families can improve outcomes regardless of when an intervention starts.
- **Parenting programmes:** effective parenting programmes are those that are standardised, well-evidenced, and delivered with fidelity. Whilst there is evidence of their effectiveness for disadvantaged groups, there is also some evidence that disadvantaged families are the least likely to benefit from them, either due to the problems experienced by parents and/or because they are the least likely to become, or remain, engaged.
- **Home visiting programmes:** these programmes involve professionals or trained volunteers visiting families at home and working in partnership with them to improve outcomes. They are especially effective for disadvantaged groups.
- **Activities to enhance attachment:** there is evidence that, when professionals encourage parents to engage in activities to enhance attachment (e.g. baby massage and using front-pack carriers), there can be benefits for both children and parents.

The literature indicates that effective **programmes to address literacy and language development** issues can narrow the gap by improving outcomes. Both comprehensive and targeted schemes can be effective, and where programmes are comprehensive, disadvantaged children benefit the most. Ensuring parental involvement and commencing programmes during pre-school are important for achieving positive outcomes.

Gaps in the evidence

The literature reviewed here can be described as the best available, as the quality of the evidence formed part of the selection criteria. Whilst there are some high quality, robust studies which clearly demonstrate how specific practices/interventions lead to a narrowing of the gap in outcomes, not all of the evidence is as robust. In some studies there is not a clearly demonstrated link between practice and outcomes, and, in general, there is a lack of longitudinal studies which demonstrate whether improvements in outcomes are sustained. There are also gaps relating to specific areas:

- effectiveness of interventions that can be delivered in pre-school settings in addition to regular activities (e.g. programmes addressing literacy or language)
- evidence on health-related outcomes for disadvantaged children and evidence of effectiveness of interventions for specific vulnerable groups
- evidence on how to engage disadvantaged families, and sustain their involvement in programmes.

Conclusions

In general, the evidence demonstrates that interventions focused on children in their early years have the potential to improve outcomes that are fundamental to their future life chances, and to narrow the gap between the disadvantaged and other children. Improvements in cognitive development, social/behavioural development and health outcomes can be achieved in the short term, and there is some evidence that these outcomes can be sustained into later life.

There are four cross-cutting themes arising from the evidence that relate to successful practice:

- The **involvement of parents** in interventions focused on their children contributes to successful outcomes for their children. This encourages parents to become involved in their child's learning and gives parents access to services that can address family problems which may be negatively impacting on their children. It also gives those professionals involved directly with the child an insight into their family situation.

- Those interventions that have the most impact are **high quality and delivered in line with best practice** in the field. This includes those that are delivered by qualified and skilled professionals and those that utilise approaches that have a sound evidence base.
- Interventions that produce positive outcomes for children are those that are able to **meet the specific needs of the individual child**, and if appropriate, their family. This includes those which are flexible and able to tailor activities to the needs of individual children, and those that use formative assessment to ensure activities are appropriate for individuals.
- It is important that interventions help **build constructive relationships between adults and children**, from which children then benefit. In early years' settings it is important that staff value the children, spend time interacting with them and help them to develop their social skills. It is also important that interventions with the family facilitate parents to develop their parenting skills and help them to overcome any problems that may be impacting negatively on their relationship with their children.

1 Introduction

This report focuses on early years' (0–5 years) provision, and presents findings from a review of the best evidence on narrowing the gap in outcomes across the five Every Child Matters (ECM) areas for vulnerable groups in the context of improving outcomes for all. The review was commissioned by the Local Government Association (LGA) as part of the Local Government Education and Children's Services Research programme. It was commissioned to inform the Department for Children, Schools and Families (DCSF) and LGA work on 'Narrowing the Gap' with participating local authorities.

In order to prepare the ground for this work, the NFER previously carried out a review of the evidence on what works in narrowing the gap (Kendall, *et al.*, 2007). The review focused on four areas:

- schools improving ECM outcomes, including through working with other children's services
- the engagement of parents and carers in their children's education and in improving wider outcomes
- early intervention and prevention
- local professional and political leadership.

In order to inform further the DCSF and LGA work on 'Narrowing the Gap', this review focuses on the evidence in relation to narrowing the gap through early years' provision (0–5 year-olds). This introductory chapter sets out:

- the background to the study
- aims and focus of the review
- methodology
- extent and robustness of the evidence
- the structure of the report.

1.1 Background

Since the publication of the Children Act (2004), local authorities and their partners have been working to support and improve outcomes for all children and young people in relation to the five ECM outcomes. The work of local authorities includes a focus on improving outcomes for vulnerable groups of children and young people, which, in local authorities' target data, often has a focus on 'Narrowing the Gap' between these groups and all children and young people. Most recently this focus has been identified in evidence produced by DCSF to support the development of the Children's Plan (DCSF, 2007b).

In its most recent inspection of children's services, Ofsted (2007) identified two key themes:

1. That 'the biggest challenge continues to be narrowing the gap in opportunities and outcomes between most children and young people and those that are the most vulnerable or underachieving'.
2. That this should be supported by 'strong partnerships ... from strategic level to front-line working ... in order to secure the necessary level of support and style of service delivery that will have a positive impact on outcomes for all children and young people'.

In working towards narrowing the gap, local authorities might target specific areas, such as particular points of transition (e.g. starting school), specific ECM outcomes, specific groups of young people, and so on.

Early years' and childcare provision

The Government has invested well over £20 billion on early years' and childcare services since 1997 as part of an expansion of provision for young children and families (including the early years' element of the Dedicated Schools Grant funding to local authorities to support free early education for three and four year-olds). As part of its drive to tackle child poverty and social exclusion, in 1999, the Government initiated Sure Start which aims to improve the health and wellbeing of families and young children under five, particularly those who are disadvantaged, so that children have greater opportunity to flourish when they go to school.

The intention of Sure Start Children's Centres is to improve outcomes for all children and they are a vital part of the Government's Ten Year Strategy for Childcare (2004)

which aims for all families with children to have access to an affordable, flexible, high-quality childcare place for their child. The Government has pledged to have a Sure Start Children's Centre in every community and the latest funding, which totals £351 million, will pay for developing, extending and modifying existing centres in less disadvantaged areas and bringing the total number of Children's Centres to 3,500 by 2010.

The Childcare Act (England and Wales, Statutes, 2006) is the first ever Act to be exclusively concerned with early years and childcare. It will help transform childcare and early years' services in England by taking forward some of the key commitments from the Ten Year Childcare Strategy. Measures in the Act also formalise the important strategic role that local authorities play. In addition, the Act reforms and simplifies early years' regulation and inspection arrangements, providing for a new integrated education and care quality framework for pre-school children and also for the new Ofsted Childcare Register. The Act's main provisions came into effect in 2008.

The Childcare Act also initiates the new Early Years Foundation Stage (EYFS) which was implemented from September 2008. EYFS is the new regulatory and quality framework for the provision of care and education for children between birth and the academic year in which they turn five (0–5 years). All providers are required to use the EYFS to ensure that, whatever setting parents choose, they can be confident that their child will receive a quality experience that supports their development and learning.

The change in children's services outlined in *Every Child Matters: Change for Children* (HM Government, 2004) also provided the context for the Children's Workforce Strategy (2006), which aims to develop a world class workforce to improve outcomes for children. The Government's response to the national consultation on the future of the children's workforce identified the benefits of developing the role of the Early Years Professional (EYP) and confirmed the aim to have EYPs in all children's centres offering early years' provision by 2010 and in every full day care setting by 2015. An EYP is a graduate who has undertaken training and assessment to the required standards to achieve Early Years Professional Status (EYPS).

1.2 Aims and focus of the review

In order to inform the DCSF and LGA work on ‘Narrowing the Gap’ this review of evidence relating to early years’ provision aimed to address:

- a) What empirically-based research on narrowing the gap in outcomes for vulnerable groups has been carried out in the UK since 2002 (with a particular focus on England and on research carried out since 2004)?
- b) Which vulnerable groups are covered in this research (e.g. children from poorer socio-economic groups, looked after children, children with disabilities, children from different ethnic backgrounds etc.)?
- c) In which ECM outcome areas are gaps being narrowed?
- d) What is the evidence for *how* gaps are narrowed, and what *effective practice* is there?
- e) What gaps are there in the research or evidence base?

1.3 Methodology

This section outlines the methodology and includes information on:

- the search strategy
- identification of the most relevant sources.

The search strategy

The search strategy involved three key lines of enquiry:

- systematic scanning and identifying of evidence from a range of relevant academic databases
- scanning and collection of information and documents from appropriate websites and internet subject gateways
- the collection of current policy and practice documents from local authorities via the EMIE at NFER link network.

Details of the range of databases searched and the key words used are provided in the search strategy in Appendix 1. The results of these searches, along with the relevant literature from appropriate websites and sources identified from local authorities, were all considered for inclusion in the review. The initial criteria for inclusion were:

- evidence from empirically-based research and evaluation
- evidence relating impacts and outcomes to effective practice
- research undertaken in the area of one or more of the ECM outcomes (be healthy, stay safe, enjoy and achieve, make a positive contribution and achieve economic wellbeing)
- evidence of impact on vulnerable groups
- evidence from a variety of sectors, including education, health, and social care
- sources published in England
- literature published from 2002 onwards, with a particular focus on literature published since 2004.

Identification of the most relevant sources

Initial searches by library and EMIE at NFER staff identified over 850 sources. The abstracts for these sources were examined and just over 100 were selected for more in-depth examination. From this, using the criteria outlined previously, 58 sources were selected for inclusion in the review. These included 17 sources which had been included in the previous ‘Narrowing the Gap’ study and 41 new sources focused on early years specifically. The new sources were summarised into a standard template (see Appendix 2).

1.4 Extent and robustness of the evidence

In brief, an overview of the characteristics of the literature reviewed showed that:

- the majority of texts included in the review looked at outcomes for a range of vulnerable groups or disadvantaged groups generally, although some covered specific vulnerable groups (see Appendix 3)

- sources identified for review were most likely to focus on enjoyment and achievement and least likely to focus on achieving economic wellbeing (see Appendix 3)
- project or intervention evaluation studies represented over half of the selected sources and about a quarter of the selected sources were either literature or evidence reviews.

There was some variation in the robustness of the evidence reviewed. In general, there was a shortage of longitudinal, robust evidence on narrowing the gap for specific vulnerable groups, although it was notable that there are more sources focused on disadvantaged children and specific vulnerable groups than for the previous 'Narrowing the Gap' review.

1.5 Structure of the report

Findings from the review are presented under the following chapter headings:

- Early years' provision: has the gap been narrowed?
- Early years' provision: how has the gap been narrowed?
- Conclusions.

Appendices provide information on the search strategy, the literature summary template and an overview of the literature in terms of the ECM outcomes and vulnerable groups focused on.

2 Early years' provision: has the gap been narrowed?

There is overwhelming evidence which indicates that the gap has been narrowed between disadvantaged and other children in terms of their general development. A number of studies indicate a positive impact on children's all round developmental outcomes through intervening in the early years, with a particular impact for disadvantaged children and some vulnerable groups (e.g. NESS, 2008; Sylva *et al.*, 2004a). There is evidence, for example, that early years' interventions could be particularly beneficial for those at risk of SEN (Sammons *et al.*, 2003b) and those in minority ethnic groups (D'Aguilli *et al.*, 2005; Gormely *et al.*, 2005). There is also some evidence that the general developmental gains from early years' intervention can be sustained (e.g. D'Aguilli *et al.*, 2005; McQuail *et al.*, 2003; Sylva *et al.*, 2004a). Studies highlight that the gap has been narrowed in terms of specific areas of development:

- cognitive development
- social and behavioural development
- health-related outcomes.

2.1 Cognitive development

There is considerable evidence to suggest that intervention in the early years can narrow the gap between disadvantaged and other children in terms of their cognitive development (e.g. Blok *et al.*, 2005; Feldman, 2004; Sammons *et al.*, 2002 and 2003a).

Box 1: Narrowing the gap in cognitive development

- A quality home learning environment is associated with significantly better cognitive outcomes at primary school entry (Sammons *et al.*, 2003a) and parental partnership and pedagogic efforts at home, as well as pre-school, leads to better cognitive attainment in the early years (Siraj-Blatchford, 2002). A stimulating home learning environment benefits the cognitive outcomes for those at risk of SEN (Sammons *et al.*, 2002).
- High quality pre-school centres can help improve cognitive development and provide more vulnerable children with a better start in life (Sammons *et al.*, 2002 and 2007a). A systematic review of effects of pre-school on children in disadvantaged populations shows an increase in children's IQ and beneficial effects on school achievement (Hallam, 2008).

- According to a randomised control trial, the Abecedarian Project, a comprehensive education, healthcare and family support programme focused on low income multi-risk families, reduces the incidence of delayed cognitive development during the pre-school years, with the most vulnerable children benefiting the most (Feldman, 2004).
- Head Start children score higher than their same age peers who are in the same socio-economic status (SES) groups in reading and maths assessment scores, although there is still a gap between Head Start children and their peers in schools with high SES (Piggott and Israel, 2005).
- Early intervention programmes for families with an educational orientation affect the cognitive domain, but social, health and economic family support does not lead to improved short-term cognitive outcomes (Blok *et al.*, 2005).
- Integrated care and attention leads to improved cognitive outcomes for children, with those from multi-risk families showing significant gains (Penn *et al.*, 2004).
- An interpersonal and cognitive skills programme in the US demonstrates a positive effect on cognitive skills in relation to the control group (Sutton *et al.*, 2004).
- A randomised control trial of intensive early intervention for autistic pre-school children shows that the treatment group outperformed the parent training group (the control group) on measures of intelligence, visual spatial ability and academic achievement (Feldman, 2004).

The sources examined suggest that there is mixed evidence in relation to whether cognitive developmental gains from intervening in the early years can be sustained. Whilst studies indicate that the effects of intervention in the early years are reduced over time (e.g. Opie *et al.*, 2004; Sammons *et al.*, 2007a), there is also some evidence of positive longer-term outcomes, such as increased employment and higher socio-economic status, thereby contributing to the economic wellbeing of children and young people (Hallam, 2008; Hayden, 2007; Sutton *et al.*, 2004).

Box 2: Can the gains in cognitive development be sustained?

- Early language intervention improves the cognitive profile of children from low SES families with delayed linguistic development up to age seven, but the improvement has been lost by age 11 (Opie *et al.*, 2004).
- Child, family and home learning experiences are weaker influences on cognitive attainment in Y5 than in Y1, whilst pre-school influences remain evident even after five years full time in primary school. However, the advantage of pre-school for cognitive attainment reduces over time and is less at Y5 than at Y1 (Sammons *et al.*, 2007a) and the benefits of pre-school education can be lost if not consolidated. Primary schools can play a crucial role in sustaining the academic gains (Wood and Caulier-Grice, 2006).
- Up to ten years after the Abecedarian Project ended, children on the pre-school programme significantly outscored those in the control group on standardised

measures of academic achievement and were less likely to be retained in grade or placed in special education (Feldman, 2004).

- Long-term follow up of the effects of pre-school on children in disadvantaged populations demonstrated increased employment and higher socio-economic status (Hallam, 2008).
- Head Start leads to positive outcomes regarding educational attainment, use of SEN services and employment, as well as the increased possibility of completing high school, attending college and higher earnings in the 20s (Hayden, 2007).
- By age 27, children involved in child-initiated learning (rather than just learning directed by a teacher) were more likely to have completed education, to be employed and home owners (Sutton *et al.*, 2004).

Some sources focus in particular on language or literacy development and there is evidence that gains could be made in terms of narrowing the gap in these areas by intervening in the early years (e.g. Evangelou *et al.*, 2005; Justice *et al.*, 2003; Opie *et al.*, 2004).

Box 3: Narrowing the gap in literacy and language development

- A quality home learning environment is associated with significantly better language outcomes at primary school entry (Sammons *et al.*, 2003b). Support at home for early learning and literacy shows that, in a sample of 27 children, only one of the 27 needs some form of remedial assistance with literacy compared with a national average of 20 per cent (Makin, 2004).
- The promotion of better quality relationships between parents and children via the Peers Early Education Partnership (PEEP) programme has a significant impact on the literacy-related skills of children from disadvantaged backgrounds (Evangelou *et al.*, 2005).
- Interventions targeted at emergent literacy (i.e. the precursors to reading and writing, such as an interest in books, narrative skills, letter knowledge etc.) can make meaningful differences to 'at risk' pre-school children; participants demonstrated substantial emergent literacy growth over the programme period (mostly in relation to alphabet knowledge, phonological segmentation and rhyme production) and growth was greater compared to the control programme. Children's oral language proficiency and their orientation to literacy were significant predictors of emergent literacy outcomes (Justice *et al.*, 2003).
- Children from low SES families with delayed linguistic development who participate in early language intervention develop their language skills and are in the normal or better range of language ability for their age after one year of intervention (Opie *et al.*, 2004).
- There is some evidence that participation in the Early Talk programme, which supports children with language difficulties, reduces such difficulties (I CAN, 2007).

2.2 Social and behavioural development

There is considerable evidence which indicates that the gap in social and behavioural development between disadvantaged children and other children can be narrowed by intervening in the early years (e.g. NESS, 2008; Sammons *et al.*, 2007b; Sylva *et al.*, 2004a). Interventions with parents (e.g. Hallam, 2008; Sutton *et al.*, 2004) and directly with children (Lovering *et al.*, 2006; Sammons *et al.*, 2007b) have been shown to lead to improved outcomes. However, there is also some recent evidence to suggest that the *most* disadvantaged may be the least likely to benefit in terms of social and behavioural development, either due to problems experienced by parents themselves and/or because such parents are least likely to become, or to remain, engaged with programmes (Hallam, 2008). Other sources suggest that interventions may be effective for specific groups, such as ethnic minority groups, those with autism and those with identified social, emotional and behavioural problems (e.g. Barlow *et al.*, 2007; Lovering *et al.*, 2006; Salt *et al.*, 2002; Sutton *et al.*, 2004).

Box 4: Narrowing the gap in social and behavioural development

- Sure Start Local Programmes result in better social development and higher levels of positive social behaviour for children in disadvantaged areas (NESS, 2008), although there is some evidence which suggests that relatively less disadvantaged families and children benefit more from Sure Start than the most disadvantaged groups (Smith, 2007).
- Robust studies of different types of parenting programmes show them to have a positive effect on younger children's behaviour (Sutton *et al.*, 2004) and their emotional and behavioural adjustment (Barlow *et al.*, 2007; Hallam, 2008), although there is some evidence to suggest that the *most* disadvantaged families may be the least likely to engage with programmes and to benefit from them (Hallam, 2008). Parenting programmes are shown to be effective with particular vulnerable groups: ethnic minority families (Barlow *et al.*, 2007; Sutton *et al.*, 2004); those with serious conduct disorders (Sutton *et al.*, 2004); and teenage parents (Barlow *et al.*, 2007).
- Children of parents receiving a child development programme in the US show that their ability to concentrate and their social behaviour is better than that of children of parents who have received conventional post-natal care (Hallam, 2008).
- The family development research programme, which recruited very deprived families early in the last trimester of pregnancy and which provided education, nutrition, health, safety and human service resources, shows that children on the programme were more positive with adults when compared with carefully matched contrast children from the same area (Honig, 2004).
- Other forms of intervention with parents that are shown to lead to improved behaviour for particular groups of children include a parent advisory service where the biggest improvements are for Bangladeshi families (Sutton *et al.*, 2004) and home visiting as part of the On Track programme for children aged 0–4 years at risk of offending (Buchanan, 2007).

- Pre-school experience can help reduce the disadvantages experienced by children from some vulnerable groups and help to combat social exclusion by promoting positive social behaviour (Sammons *et al.*, 2003b; Sammons *et al.*, 2007b; Sylva *et al.*, 2004a). A systematic review of the effects of pre-school on children in disadvantaged populations shows beneficial effects on behavioural development (Hallam, 2008). Studies also suggest that early language intervention enhances social as well as cognitive development (Opie *et al.*, 2004).
- Evaluation of a developmentally-based early intervention programme for those with autism shows that children in the treatment group improve significantly more than those in the control group on measures of joint attention, social interaction, imitation, daily living skills, motor skills and adaptive behaviour (Salt *et al.*, 2002).
- A community-based early intervention programme for young children with behavioural, emotional and social problems, which integrates work in the home and school with a parenting curriculum and direct work with children, found statistically significant reductions in problems at home and school experienced by children who completed the programme and in parental stress levels (Lovering *et al.*, 2006).
- There is some evidence that participation in Start Right, based on nurture group principles and delivered in nursery classes, improves the learning skills and social/emotional development of children identified as needing extra support (Boot, 2006).

The sources examined suggest that there is mixed evidence regarding how far social and behavioural developmental gains from intervening in the early years can be sustained. There is evidence to indicate, for example, that the social benefits of intervening in the early years may be lost if not consolidated (e.g. Hallam, 2008; Wood and Caulier-Grice, 2006). However, there is also convincing evidence that some early years' interventions can reduce criminal behaviour and rates of offending in later years (e.g. Hayden, 2007; Hallam, 2008; Sutton *et al.*, 2004).

Box 5: Can gains in social and behavioural development be sustained?

- Hallam's systematic review concludes that there is little evidence to indicate that improvements in social and behavioural development as a result of parenting programmes are maintained over time (Hallam, 2008). However, results of a random control trial on a Triple Parenting Programme in the UK found that lower levels of disruptive behaviour were maintained at six months (Barlow *et al.*, 2007) and Sutton *et al.* (2004) found that, at six-year follow up, some parenting programmes show that young people receiving intervention from the start of elementary school were significantly less likely than a control group to report violent criminal behaviour and less school misbehaviours compared to a late intervention programme which showed no significant long-term effects.
- According to Hallam's systematic review, long-term follow up of the effects of pre-school on children in disadvantaged populations demonstrated higher socioeconomic

status and decreased criminal behaviour (Hallam, 2008). However, according to Wood and Caulier-Grice (2006), the benefits of pre-school education can be lost if not consolidated and primary schools can therefore play a crucial role in sustaining the social, as well as the academic gains.

- Fifteen-year follow up shows that Nurse–Family Partnerships led to fewer behavioural problems and less than half the rate of criminal convictions than a control group (Sutton *et al.*, 2004). Long-term follow up of Head Start showed positive outcomes with regard to anti-social behaviour and offending behaviour, with the most significant difference being for African American young people (Hayden, 2007). The family development research programme also resulted in sustained benefits for those children involved, who, by adolescence, were less likely to offend (Honig, 2004).

2.3 Health-related outcomes

Although far less robust than the evidence relating to cognitive and social/behavioural outcomes, there is evidence that intervention in the early years can have positive outcomes for children in a number of health-related areas:

- physical health
- child abuse and neglect
- self-esteem
- prevention of teenage pregnancy
- development of clinical conduct disorders.

There was also less evidence overall related to specific vulnerable groups with regard to health-related outcomes. This would therefore appear to be a gap in the literature.

There is evidence that the **physical health** of children can be improved by intervening in the early years (e.g. Hallam, 2008; NESS, 2008; Barlow *et al.*, 2007).

Box 6: Narrowing the gap in physical health

- Intervention in the form of an infant health and development programme can directly benefit low birth weight and premature infants (Lee, 2005).
- In a child development programme in the US, children's health is better than those receiving conventional post-natal care (Hallam, 2008).
- Sure Start Local Programmes demonstrate that children in disadvantaged areas are more likely to have received health immunisations (NESS, 2008).
- The use of home visiting volunteers with disadvantaged first time mothers results in a range of outcomes, including improved primary immunisations and a better diet (Barlow *et al.*, 2007).

There is evidence to indicate that intervention in the early years can prevent incidents of **child abuse and neglect** (e.g. Bagnato *et al.*, 2002; Carman *et al.*, 2006; Hallam, 2008).

Box 7: Narrowing the gap in child abuse and neglect

- Disadvantaged children of nurse visited mothers are less likely to receive health care injuries and ingestion in the first two years of life, and experience fewer incidents of child abuse and neglect (Hallam, 2008).
- Home visiting programmes commencing antenatally or during the immediate post-natal period can prevent physical abuse and neglect among disadvantaged families; home visiting is effective in improving a range of outcomes associated with abuse and neglect, including parenting skills, the quality of the home environment and frequency of unintentional injury; however, some programmes are not beneficial for high risk families (Bagnato *et al.*, 2002).
- A home safety programme reduces the number of children under five attending A&E. The reduction was shown to be greater in Sure Start areas where home visits were conducted and equipment was installed (7.4 per cent) than other areas where advice and information was given out (4 per cent) (Carman *et al.*, 2006).

There is evidence to indicate that intervention in the early years can have positive benefits for children's **self-esteem**, particularly in relation to disadvantaged and vulnerable groups (e.g. Barlow *et al.*, 2007; Buchanan, 2007; Hallam, 2008).

Box 8: Narrowing the gap in self-esteem

- The Peers Early Education Partnership (PEEP) has a significant impact on children from disadvantaged backgrounds, including value added progress in measures of self-esteem (Evangelou *et al.*, 2005).
- Home visiting as part of the On-Track programme leads to improved self-esteem in vulnerable children (Buchanan, 2007).
- Volunteers visiting disadvantaged first-time mothers at home results in a range of outcomes, including less negative and more positive feelings (Barlow *et al.*, 2006).

There is evidence to indicate that intervention in the early years can have positive benefits for children in terms of the prevention of **teenage pregnancy** (e.g. Hallam, 2008; Sutton *et al.*, 2004).

Box 9: Narrowing the gap in teenage pregnancy

- A systematic review of the positive effects of pre-school concludes that long-term follow up demonstrates lower teenage pregnancy rates (Hallam, 2008).
- Girls' involvement in child-initiated learning results in less likelihood of them becoming pregnant in the teenage years (Sutton *et al.*, 2004).

There is evidence to indicate that intervention in the early years can have positive benefits for children in terms of the prevention of clinically significant **conduct disorders**, particularly in relation to disadvantaged and vulnerable groups (e.g. Hutchings *et al.*, 2007; Lovering *et al.*, 2006; Utting *et al.*, 2007). There is also some evidence which suggests that gains can be both short and medium term (Utting *et al.*, 2007).

Box 10: Narrowing the gap in conduct disorders

- Evaluation of a community-based early intervention programme shows that it can lead to a decrease in the percentage of parents and teachers reporting clinically significant levels of disruptive behaviour in deprived children, which is maintained after six months (Lovering *et al.*, 2006).
- Behavioural parent training programmes are effective in decreasing conduct disorders in young children (Richardson and Joughlin, 2002); the pre-school age may be one of the most critical times developmentally to prevent the onset of conduct disorders.

- A review of a number of parenting programmes focused on conduct disorder shows considerable effectiveness in achieving positive outcomes with children and their families, both short and medium term, i.e. six months to two years. A Webster-Stratton parenting programme using trained health visitors led to significant reductions in conduct problems at six months (Utting *et al.*, 2007).
- Similarly, the Incredible Years parenting programme reduces the key risk factors for the development of conduct disorder and, in comparison to the control group, intervention children have significantly reduced antisocial and hyperactive behaviour and increased self-control (Hutchings *et al.*, 2007).
- Contrastingly, the Primary Age Learning Study (PALS) was found to increase children's attention and on-task behaviour in the short term, but it was not shown to have a lasting effect on children's behaviour (Scott *et al.*, 2006).

3 Early years' provision: how has the gap been narrowed?

The literature shows that the gap has been narrowed through pre-school attendance, parent and family focused interventions, and specific interventions focused on literacy and language (e.g. Sylva *et al.*, 2004a; Sutton *et al.*, 2004; Moran *et al.*, 2004; Makin, 2004).

3.1 Pre-school attendance

Evidence suggests that pre-school experience enhances the all-round development of children, and especially those who are at risk of later educational failure, e.g. due to SEN or socio-economic disadvantage (e.g. Sylva *et al.*, 2004a; McQuail *et al.*, 2003). The literature indicates that outcomes for children are affected by the quality of pre-school, the type of pre-school attended and children's pattern of attendance.

There is robust evidence showing that the **quality of pre-school** is the most important influencing factor on outcomes (e.g. McQuail *et al.*, 2003). The literature identifies common characteristics of those pre-school settings that achieve the best outcomes for children. These include highly qualified staff, parental involvement and seeing cognitive and social development as complementary (e.g. Siraj-Blatchford *et al.*, 2002; Siraj-Blatchford *et al.*, 2003; Feldman, 2004).

Box 11: Narrowing the gap through pre-school attendance

Common characteristics of pre-school settings that achieve the best outcomes for children include:

- staff teams who are well qualified, for example, with teaching qualifications, or trained in early child development (Sylva *et al.*, 2004a; Feldman, 2004; Sammons *et al.*, 2003a; Smith, 2007), are long serving, and are encouraged to participate in staff development (Siraj-Blatchford *et al.*, 2003).
- managers who take a strong lead in curriculum and planning, have a strong educational focus, value the importance of adult-child interaction, and support their staff to develop better ways of engaging children (Siraj-Blatchford *et al.*, 2003).
- pedagogic approaches which involve a high level of adult-child verbal interaction and 'sustained shared thinking' to extend children's thinking (Siraj-Blatchford *et al.*, 2002; Siraj-Blatchford *et al.*, 2003).
- an almost equal balance between high quality teacher-initiated group work and child-initiated play (Siraj-Blatchford *et al.*, 2003).

- the use of formative assessment to meet the needs of children and ensure that activities are appropriate and cognitively challenging for individual children (Siraj-Blatchford *et al.*, 2002; Siraj-Blatchford *et al.*, 2003).
- a low ratio of children to adults (Feldman, 2004; Putwain, 2003); there is also some evidence that taking children who need extra support aside in small groups with a low child–adult ratio for activities (e.g. based on circle time) can improve their outcomes (Boot, 2006).
- significant levels of parental involvement, for example, by involving parents in decisions about their child's learning, and/or encouraging them to undertake activities at home that underpin the learning at pre-school (Siraj-Blatchford *et al.*, 2002; Siraj-Blatchford *et al.*, 2003; Feldman, 2004).
- seeing cognitive and social development as complementary and of equal importance, and balancing activities to facilitate whole child development (Siraj-Blatchford *et al.*, 2002; Siraj-Blatchford *et al.*, 2003; Sylva *et al.*, 2004a).
- staff who are consistent and proactive in supporting children to develop their social skills, and who support children to rationalise and talk through their conflicts (Siraj-Blatchford *et al.*, 2003; Sammons *et al.*, 2003a).
- having classes which include children from different backgrounds, (e.g. high achievers) benefits those who are disadvantaged (Sylva *et al.*, 2004a; Hallam, 2008; CPMO, 2006).
- a good physical environment (e.g. spacious and well maintained) and a well-structured day (Smith, 2007; Fisher *et al.*, 2005; Mathers and Sylva, 2007).

The literature suggests that the **type of pre-school provision** has an impact on outcomes. There is evidence of better cognitive outcomes for children who attend integrated centres (Penn *et al.*, 2004), and better social/behavioural outcomes for children who attend integrated centres and nurseries (Sammons *et al.*, 2003a; Penn *et al.*, 2004). There is also some evidence that integrated centres and nurseries are especially beneficial to children 'at risk' due to their cognitive development, and that integrated centres, nurseries and playgroups are especially beneficial to children 'at risk' due to their social/behavioural development (Sammons *et al.*, 2003b).

The **duration of attendance** at pre-school is important, and the longer the child attends, the better the intellectual outcomes for them (Sylva *et al.*, 2004a and b; McQuail *et al.*, 2003; Mathers and Sylva, 2007). Alongside this, there is evidence that the greater the duration of attendance, the more likely children are to develop anti-social behaviour (Smith, 2007; Belsky *et al.*, 2007; Mathers and Sylva, 2007). However, overall, the evidence suggests that an early entry to pre-school is more likely to benefit children than harm them (Penn *et al.*, 2004).

The literature indicates that there are specific characteristics of effective out-of-home provision for children from birth to three. These characteristics relate to the development of the relationship between the caregiver and child, parental involvement, the focus on the child as an individual and the opportunities provided to facilitate development (Stephen *et al.*, 2003).

Box 12: Narrowing the gap through out-of-home provision

There is evidence that effective out-of-home provision for **infants under one year** requires (Stephen *et al.*, 2003; 2):

- consistent care-giving by one adult or a very small number of adults, whilst minimising staff turnover and changes of carers
- a focus on dealing with children as individuals
- communication about the changing ways and temperaments of babies with their parents.

There is evidence that effective out-of-home provision for **infants in their second year** requires (Stephen *et al.*, 2003; 3):

- a consistent relationship with a care giver who knows the child's stage of development
- interaction with children through talk, imitative behaviour, discovery and pretend play
- opportunities to develop language, symbolic coding and classifying, movement and engagement with music, rhyme and creativity
- sensitivity to the social and cultural background of children and opportunities for parents and care givers to share their understanding of children in their own context.

There is evidence that effective out-of-home provision for **infants in their third year** requires (Stephen *et al.*, 2003; 5):

- opportunities to express and represent discoveries and learning in different media
- imaginative and inventive play and discovery in groups, alone and with interested adults
- adults who are aware of a child's stage of development in language, social competence, cognition and moral reasoning, and who are able to share and lead the child's discoveries and their participation in the world of older children and adults
- attention to each child's sense of wellbeing, self-worth and pride in achievement.

There is also evidence in the literature that **effective strategic management** by those overseeing individual settings, or groups of settings, helps improve outcomes for

children. Examples of such practice include relevant staff training, auditing local need and identifying providers of services (Anning *et al.*, 2007; Bagnato *et al.*, 2002).

Box 13: Narrowing the gap through pre-school programmes

Common characteristics of Sure Start Local Partnerships (SSLPs) that are producing better than expected outcomes for children and their parents (Anning *et al.*, 2007) are:

- effective auditing of local needs in order to tune local services to community priorities
- identification and targeting of those with specialist needs with appropriate treatments as early as possible
- allocation and training of appropriate providers, including the strategic deployment of generic and specialist staff to deliver effective services at the point of need
- training and management of providers for proficient multi-agency teamwork
- training of managers/leaders in budget and project management skills.

Pittsburgh's early childhood initiative (ECI) implements high-quality early care and education options for children in high-risk neighbourhoods. Evidence suggests that successful outcomes for children are linked to two programme-related factors (Bagnato *et al.*, 2002):

- using quality standards to create and monitor improvements in settings, and setting in place ongoing evaluation procedures
- ensuring that teachers and care givers receive ongoing weekly mentoring to enhance their practice.

3.2 Parent- and family-focused interventions

The literature demonstrates that a stimulating home learning environment benefits both the cognitive and social development of children, that parents are an important influence on later outcomes, and that positive outcomes for parents are reflected in the outcomes of their children (Sammons *et al.*, 2003b; CPMO, 2006; Hallam, 2008; Barnes *et al.*, 2003). Therefore, interventions that address the issues faced by children and their families are important. The literature identifies several types of intervention: comprehensive services, family support interventions, parenting programmes and home visiting programmes. Although these categories are not always mutually exclusive, there are lessons for practice that can be drawn out by categorising them in this way.

Evidence from the literature suggests that **comprehensive services** are an effective way of improving outcomes for disadvantaged children as they can address all the negative factors that tend to cluster around them (e.g. Sutton *et al.*, 2004; Feldman, 2004).

Box 14: Narrowing the gap through comprehensive services

- A key success factor of Head Start and similar programmes in the US targeted at disadvantaged children is the inclusion of services addressing physical and mental health, education and social support for children and families (Feldman, 2004).
- Evidence about the effectiveness of interventions to prevent or treat child physical abuse and neglect suggests that programmes targeting a wider number of the subsystems involved in abuse, e.g. the individual, family, school, and community, are effective (Barlow *et al.*, 2006).
- Behavioural issues in children are improved by multi-agency early intervention that involves intervening at home and school, working with both children and parents (Lovering *et al.*, 2006).
- Outcomes for children with disabilities or SEN are improved through the availability of specialist health services (e.g. speech and language therapy, mental health outreach) at SSLPs (Pinney, 2007).

There is also evidence in the literature that **interventions focused on the whole family** are effective in improving outcomes for children, including those who are disadvantaged (e.g. economically, those with conduct disorders) (Blok *et al.*, 2005; Hallam, 2008; Lee, 2005; Pinney, 2007; Barnes *et al.*, 2003). The literature suggests that supporting families can improve outcomes regardless of whether an intervention is early or not, although outcomes are more positive when interventions are earlier (Moran *et al.*, 2004).

Box 15: Narrowing the gap through whole family support

The characteristics of family support programmes that are effective in improving outcomes for children include:

- a strong theory base and measurable outcomes that are delivered with fidelity (Moran *et al.*, 2004; Utting *et al.*, 2007)
- multiple referral routes onto the programme, as well as targeting and tailoring support for specific groups and individuals (Moran *et al.*, 2004; Barlow *et al.*, 2006)
- more than one method of delivery (e.g. face-to-face, DVD presentation etc.) (Barlow *et al.*, 2007, Barnes *et al.*, 2003; Moran *et al.*, 2004)
- appropriately trained and skilled staff to deliver the programme (Moran *et al.*, 2004, Utting *et al.*, 2007)
- a sustained intervention period that is long enough to make a difference (Moran *et al.*, 2004; Utting *et al.*, 2007; Pinney, 2007)
- adopting a partnership approach between professionals, families and children (Moran *et al.*, 2004; Utting *et al.*, 2007).

There is also evidence that additional characteristics improve outcomes for certain vulnerable groups:

- For children with conduct disorder problems, behavioural parent training on an individual or group basis, age appropriate methods, and interventions involving parents and children working together are effective (Moran *et al.*, 2004). Multi-systemic therapy, multi-dimensional treatment foster care and functional family therapy are also effective (Utting *et al.*, 2007).
- When family support is a core service in SSLPs and there is a coordinated package of support that appropriately utilises the skills of specialist and generalist staff, there are benefits for children with disabilities and SEN (Pinney, 2007).
- For children at risk of abuse, the most effective family-focused interventions are flexible, with multiple components. They tend to employ an ecological model, to be empowerment/strengths based, and adaptable to meet the different developmental needs of child and family (Barlow *et al.*, 2006).

It is also evident from the literature that **parenting programmes** can be an effective way of improving outcomes for children (for details in relation to older children and young people see earlier NFER review, Kendall *et al.*, 2007) (e.g. Hallam, 2008; Barlow *et al.*, 2007). The literature shows that effective programmes are those that are standardised and well-evidenced, and that they are most effective when delivered with fidelity (Barlow *et al.*, 2007). Evidence in the literature identifies the Positive Parenting Programme (Hallam, 2008; Barlow *et al.*, 2007; Sutton *et al.*, 2004; Utting *et al.*, 2007), the Incredible Years programme (Hallam, 2008; Utting *et al.*, 2007; Sutton *et al.*, 2004; Hutchings *et al.*, 2007) and Living with Children (Sutton *et al.*, 2004) as examples of effective parenting programmes. The evidence suggests that parenting programmes can be effective in improving outcomes for children with conduct disorders (Utting *et al.*, 2007; Richardson and Joughin, 2002). However, there is some evidence that, in general, parenting programmes do not narrow the gap, as disadvantaged families are the least likely to benefit from them, either due to problems experienced by the parents and/or because they are the least likely to become, or remain, engaged (Hallam, 2008).

The literature suggests that **home visiting programmes** are effective in improving outcomes for children and families. Such programmes involve professionals or trained volunteers visiting families at home and working in partnership with them to improve outcomes (e.g. Hallam, 2008; Sutton *et al.*, 2004; Barlow *et al.*, 2007). Such programmes can narrow the gap as they are effective for disadvantaged groups, for example, those with conduct disorders, those at risk of developing anti-social/criminal behaviour, or at risk of abuse/neglect (Sutton *et al.*, 2004; Utting *et al.*, 2007; Barlow *et al.*, 2006).

Box 16: Narrowing the gap through home visiting programmes

- The Nurse–Family Partnership in the US helps protect against future behavioural issues for those at risk of developing such problems (Hallam, 2008; Sutton *et al.*, 2004; Utting *et al.*, 2007). Visits begin during pregnancy and continue during the early years, concentrating on positive health-related behaviours, competent care of children and maternal personal development. Visiting nurses also help families access other services. There is some evidence that visits from nurses produce better outcomes than from trained paraprofessionals (Hallam, 2008).
- The Community Mothers' Programme uses trained volunteer mothers to give monthly, home-based support to disadvantaged mothers with young children. The programme has benefits for disadvantaged groups, including those at risk of developing anti-social/criminal behaviour (Barlow *et al.*, 2007; Sutton *et al.*, 2004).
- For children at risk of developing anti-social/criminal behaviour, the Houston Parent–Child Development Centre programme offers support at home for mothers and pre-school development opportunities for children from age one, producing measurable reductions in offending among participating children (Sutton *et al.*, 2004).
- The Yale Child Welfare Project, in which a home visitor offers parenting, employment and educational support over the first two years of life, reduces later offending among participating children (Sutton *et al.*, 2004).
- The Syracuse Programme offers support by paraprofessionals at home for parents as well as pre-school and some day-care education for children. There are reductions in later offending amongst participating children (Sutton *et al.*, 2004).
- A home safety equipment scheme narrowed the gap in terms of child visits to A&E departments. Home safety issues (e.g. poisons, burns) were discussed at a home visit and safety equipment was provided (e.g. plug covers, cupboard locks, safety gates, safety film for glass doors) (Carman *et al.*, 2006).

There is evidence in the literature that, when professionals encourage parents to engage in activities to enhance **attachment**, such as baby massage, and using front-pack carriers, there can be benefits for both children and parents (Sutton *et al.*, 2004).

Box 17: Narrowing the gap through bonding activities

- Baby massage, when accompanied by talk, touch and gaze, can help relax children, but the face-to-face interaction is also a way to enhance parent–child bonding. Research in hospital settings has demonstrated positive outcomes for both children and parents (Sutton *et al.*, 2004).
- The use of front-pack baby carriers, compared to baby seat carriers, helps develop attachment between children and their mothers (Sutton *et al.*, 2004).

3.3 Literacy and language

Programmes to address literacy and language development issues can narrow the gap by improving outcomes (e.g. D'Anguilli *et al.*, 2005; Makin, 2004). Some literature indicates that interventions are effective when they are comprehensive (i.e. open to all children) (D'Anguilli *et al.*, 2005; Makin, 2004), whilst there is also evidence of effective targeted programmes (Justice *et al.*, 2003; Opie *et al.*, 2004; Sutton *et al.*, 2004). Where programmes are comprehensive, disadvantaged children benefit the most (D'Anguilli *et al.*, 2005). Ensuring parental involvement and commencing programmes during pre-school are important to achieve positive outcomes (D'Anguilli *et al.*, 2005; Makin, 2004).

Box 18: Narrowing the gap through literacy and language programmes

- The Early Literacy Intensive Teaching programme in the US involves the teaching of reading strategies; use of reading components; instructional activities with an explicit emphasis on sound-symbol relationship; and independent activities, such as cooperative story writing and journal writing using invented spelling. It starts in pre-school, continues in the early years of school and is beneficial for children from economically disadvantaged groups, black and minority ethnic (BME) groups and those with English as a second language (ESL) (D'Anguilli *et al.*, 2005).
- An emergent literacy programme produces significant benefits for children with multiple risk factors. The programme engages children in activities focused on the orthographic features of written language and the phonological features of oral language (Justice *et al.*, 2003).
- The Support at Home for Early Language and Literacy (SHELLS) programme is a universal programme run in areas of Australia with educational and social disadvantage. It has a theoretical framework blending emergent literacy approaches with literacy as social practice and children are involved from birth to three. The programme involves parents and uses trained facilitators that understand the community. It has been shown to reduce the incidence of literacy difficulties in children (Makin, 2004).
- The Early Talk programme involves increasing the skills of practitioners and helping parents to support language development, as well as providing early intervention to pre-school children with language difficulties. Evidence suggests that language difficulties are reduced by the programme (I CAN, 2007).
- The Baby Talk Intervention in the UK aims to enhance interaction between mother and child by specifically addressing the nature of mother-directed speech and optimal conversation exchange. The programme involves a 30-minute daily input and is targeted at economically disadvantaged families. There are cognitive benefits for children for up to seven years after the intervention (Opie *et al.*, 2004).

4 Conclusions

This final chapter draws together the findings of the review by considering the evidence base in relation to narrowing the gap through early years' interventions and bringing together the broad messages from the review.

4.1 Gaps in the evidence

This review was not able to include all of the literature relating to narrowing the gap in outcomes and one of the criteria used to decide which literature would be most pertinent to the research questions was the robustness of the research. The literature reviewed can therefore be described as the best available. Whilst there are some high quality, robust studies which clearly demonstrate how specific practices/interventions lead to a narrowing of the gap in outcomes, not all of the evidence is as robust. There are two issues with the evidence base:

- some research methodologies are not robust enough to demonstrate a link between practices and outcomes (for example, they infer a relationship based on their reading of the data rather than the use of large-scale randomised controlled trials, or they use relatively small samples)
- there is a lack of longitudinal studies that demonstrate whether improvements in outcomes are sustained over a long period of time.

There are also gaps relating to specific outcome areas and/or interventions:

- the best available evidence (i.e. robust and longitudinal) tends to relate to the impact of pre-school attendance, and there is a need for more robust evidence on the **effectiveness of interventions that can be delivered in pre-school settings** (e.g. addressing literacy, parenting programmes) further to improve the outcomes for children
- although in general there was much evidence relating to outcomes for vulnerable groups, there was less evidence on **health-related outcomes** for such children and less consistent evidence of the effectiveness of interventions for specific vulnerable groups
- whilst there is evidence of the effectiveness of interventions focused on the family, there is little literature on **how to engage disadvantaged families, and sustain their involvement in programmes.**

4.2 Key messages

In general, the evidence demonstrates that interventions focused on children in their early years have the potential to improve outcomes that are fundamental to their future life chances. Improvements in cognitive development, social/behavioural development and health outcomes can be achieved in the short term, and there is some evidence that these outcomes can be sustained into later life. Whilst improvements can be achieved for all children through such interventions, the evidence indicates that they can also make a significant contribution to narrowing the gap between disadvantaged and other children.

In achieving these outcomes for children in their early years, and narrowing the gap, there are four cross-cutting themes:

The **involvement of parents** in interventions focused on their children contributes to successful outcomes for their children. This encourages parents to become involved in their child's learning and gives them access to services that address family problems which may be negatively impacting on their children (e.g. parenting programmes, family support, support to find employment). It also gives professionals involved directly with the child an insight into their family situation. One of the characteristics of the most effective pre-schools is that they enable parents to undertake activities at home that underpin their child's learning and seek to involve parents in decisions about their child.

Those interventions that have the most impact are **high quality and delivered in line with best practice** in the field. Pre-schools that deliver the best outcomes for children have well-qualified and skilled staff, effective pedagogic approaches and a strong focus on individual children. The parenting programmes that are demonstrated to have the most impact are those that are evidence-based and delivered by skilled professionals in line with the specific instructions of those who have developed the programmes.

Interventions that produce positive outcomes for children are those that are able to **meet the needs of the individual child**, and, if appropriate, their family. A characteristic of the most effective pre-school settings is that they use formative assessment to ensure activities are cognitively challenging and appropriate for individual children. Other effective interventions tend to be flexible, able to tailor activities to the needs of individual children and to ensure a high ratio of adults to

children so that children receive the close attention that they need to achieve the best outcomes.

Interventions that are effective in improving outcomes for children tend to **support constructive relationships between adults and children**, from which children then benefit. This applies to the relationship between young children and staff in early years' settings, where it is important that staff value the children, spend time interacting with them and assist them to develop their social skills by working through conflicts or problems. In the case of very young children, building a constructive relationship with one, or a limited number of, primary care givers is especially important. It is important that interventions with the family facilitate parents to develop their parenting skills and overcome any problems that may be impacting negatively on their relationship with their children, as this will contribute to positive outcomes for children.

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Appendix 1: Search strategy

Database searches for the project sought to identify evidence of narrowing the gap in outcomes for vulnerable groups across the five ECM areas, with reference to early years' provision and provision targeted at 0–3 year-olds. Research carried out in the UK since 2002 was included, with a particular focus on England and on research undertaken since 2004. Searches were conducted during the period 15 July – 5 August 2008.

Search strategies for all databases were developed by using terms from the relevant thesauri where these were available, along with free-text searching. A set of terms was developed to describe the age groups being studied, and this was combined with the sets of terms relating to each of the five outcomes and to 'Narrowing the Gap' in general which had been employed in the original project. The keywords used in the searches, together with a brief description of each of the databases searched, are outlined below. Throughout the \$ symbol has been used to denote truncation of terms, (exp) the 'explosion' of a thesaurus term to include all narrower terms, and (ft) the use of free-text search terms.

British Education Index (BEI)

BEI provides bibliographic references to 350 British and selected European English-language periodicals in the field of education and training, plus developing coverage of national report and conference literature.

Age group terms

- #1 young children
- #2 infants
- #3 preschool children
- #4 preschool education
- #5 early experience
- #6 early childhood education
- #7 nursery schools
- #8 nursery school curriculum
- #9 nursery school education
- #10 nursery school pupils
- #11 day care
- #12 day care centres
- #13 child rearing
- #14 prevention
- #15 early intervention (ft)
- #16 children's centres (ft)
- #17 sure start (ft)

- #18 birth to three (ft)
- #19 foundation stage (ft)
- #20 early years (ft)
- #21 early years professional status (ft)
- #22 eyps (ft)
- #23 #1 OR #2 OR #3 ... #22

Narrowing the Gap general terms

- #24 educational objectives
- #25 learner educational objectives
- #26 educational attainment
- #27 attendance
- #28 evaluation
- #29 outcomes of education
- #30 outcome\$ (ft)
- #31 every child matters (ft)
- #32 ecm (ft)
- #33 narrowing the gap (ft)
- #34 what works (ft)
- #35 #24 OR #25 OR #26 ... #34

#36 #23 AND #35 223 hits, 31 marked

Achieving Economic Wellbeing terms

- #37 economically disadvantaged
- #38 low income groups
- #39 social isolation
- #40 socioeconomic status
- #41 disadvantaged
- #42 poverty
- #43 child poverty (ft)
- #44 social deprivation (ft)
- #45 social exclusion (ft)
- #46 free school meals (ft)
- #47 economic wellbeing (ft)
- #48 #37 OR #38 OR #39 ... #47

#49 #23 AND #48 159 hits, 28 marked

Making a Positive Contribution terms

- #50 citizenship
- #51 childrens rights
- #52 social integration
- #53 active citizenship (ft)
- #54 civic engagement (ft)
- #55 positive contribution (ft)
- #56 #50 OR #51 OR #52 ... #55

#57 #23 AND #56 38 hits, 13 marked

Staying Safe terms

- #58 child welfare
- #59 children at risk
- #60 bullying
- #61 child protection (ft)
- #62 safeguarding (ft)
- #63 looked after children (ft)
- #64 young carers (ft)
- #65 vulnerable children (ft)
- #66 #58 OR #59 OR #60 ... #65

#67 #23 AND #66 89 hits, 45 marked

Being Healthy terms

- #68 disabilities
- #69 special educational needs
- #70 health
- #71 disabled children (ft)
- #72 additional educational needs (ft)
- #73 health care (ft)
- #74 child health (ft)
- #75 wellbeing (ft)
- #76 #68 OR #69 OR #70 ... #75

#77 #23 AND #76 121 hits, 25 marked

Enjoying and Achieving terms

- #78 achievement
- #79 high achievement
- #80 low achievement
- #81 underachievement
- #82 child development
- #83 enjoy\$ (ft)
- #84 #78 OR #79 OR #80 ... #83

#85 #23 AND #84 231 hits, 23 marked

ChildData

ChildData is produced by the National Children's Bureau. It has four information databases: bibliographic information on books, reports and journal articles (including some full text access); directory information on more than 3,000 UK and international organisations concerned with children; Children in the News, an index to press coverage of children's issues since early 1996; and an indexed guide to conferences and events. As the specific keyword 'Outcomes' was present, a separate search was undertaken to explore the records indexed with it.

Age group terms

- #1 infants
- #2 preschool children
- #3 preschool education
- #4 early childhood care and education
- #5 early childhood services
- #6 early years foundation stage
- #7 foundation stage
- #8 foundation stage profile
- #9 early primary school age
- #10 nursery schools
- #11 day care
- #12 sure start
- #13 childrens centres
- #14 parenting orders
- #15 parenting programmes
- #16 parenting skills
- #17 #1 OR #2 OR #3 ... #16

Narrowing the Gap general terms

- #18 every child matters
- #19 ecm (ft)
- #20 narrowing the gap (ft)
- #21 #18 OR #19 OR #20 285 hits, 25 marked

Outcomes

- #22 outcomes
- #23 #17 AND #22 569 hits, 165 marked

Educational Resources Information Center (ERIC)

ERIC is sponsored by the United States Department of Education and is the largest education database in the world. It indexes over 725 periodicals and currently contains more than 7,000,000 records. Coverage includes research documents, journal articles, technical reports, program descriptions and evaluations and curricula material.

An additional set was incorporated into the ERIC search, to ensure retrieval only of documents pertinent to the UK.

Age group terms

- #1 young children (exp)
- #2 infants (exp)
- #3 toddlers
- #4 preschool children
- #5 preschool education
- #6 early experience

- #7 early childhood education
- #8 nursery schools
- #9 kindergarten children
- #10 infant care
- #11 child care
- #12 child care centers
- #13 child rearing
- #14 early intervention
- #15 prevention
- #16 childrens centres (ft)
- #17 sure start (ft)
- #18 head start (ft)
- #19 birth to three (ft)
- #20 foundation stage (ft)
- #21 early years (ft)
- #22 early years professional status (ft)
- #23 eyps (ft)
- #24 #1 OR #2 OR #3 ... #23

Geographical location terms

- #25 England (ft)
- #26 Wales (ft)
- #27 Scotland (ft)
- #28 Northern Ireland (ft)
- #29 Great Britain (ft)
- #30 United Kingdom (ft)
- #31 UK (ft)
- #32 #25 OR #26 OR #27 ... #31

- #33 #24 AND #32

Narrowing the Gap general terms

- #34 educational objectives
- #35 student educational objectives
- #36 educational attainment
- #37 attendance
- #38 evaluation
- #39 outcomes of education
- #40 outcome\$ (ft)
- #41 every child matters (ft)
- #42 ecm (ft)
- #43 narrowing the gap (ft)
- #44 what works (ft)
- #45 #34 OR #35 OR #36 ... #44

- #46 #33 AND #45 155 hits, 31 marked

Achieving Economic Wellbeing terms

- #47 disadvantaged
- #48 economically disadvantaged

- #49 low income groups
- #50 welfare recipients
- #51 social isolation
- #52 socioeconomic status
- #53 poverty
- #54 child poverty (ft)
- #55 social deprivation (ft)
- #56 social exclusion (ft)
- #57 free school meals (ft)
- #58 economic wellbeing (ft)
- #59 #47 OR #48 OR #49 ... #58

- #60 (#33 AND #59) NOT #45 51 hits, 21 marked

Making a Positive Contribution terms

- #61 social integration
- #62 childrens rights
- #63 citizenship
- #64 active citizenship (ft)
- #65 civic engagement (ft)
- #66 positive contribution (ft)
- #67 #61 OR #62 OR #63 ... #66
- #68 #33 AND #67 13 hits, 10 marked

Staying Safe terms

- #69 child welfare
- #70 child safety
- #71 well being
- #72 bullying
- #73 child protection (ft)
- #74 safeguarding (ft)
- #75 looked after children (ft)
- #76 young carers (ft)
- #77 vulnerable children (ft)
- #78 #69 OR #70 OR #71 ... #77
- #79 (#33 AND #78) NOT (#45 OR #59 OR #67) 60 hits, 10 marked

Being Healthy terms

- #80 disabilities (exp)
- #81 special education
- #82 health
- #83 child health
- #84 access to health care
- #85 health care (ft)
- #86 disabled children (ft)
- #87 additional educational needs (ft)
- #88 #80 OR #81 OR #82 ... #87
- #89 (#33 AND #88) NOT (#45 OR #59 OR #67 OR #78) 142 hits, 16 marked

Enjoying and Achieving terms

- #90 achievement
- #91 academic achievement
- #92 high achievement
- #93 low achievement
- #94 overachievement
- #95 underachievement
- #96 child development
- #97 enjoy\$ (ft)
- #98 #90 OR #91 OR #92 ... #97
- #99 (#33 AND #98) NOT (#45 OR #59 OR #67 OR #78 OR #88) 77 hits, 13 marked

Applied Social Sciences Index and Abstracts (ASSIA)

ASSIA is an index of articles from over 600 international English language social science journals. The database provides unique coverage of special educational and developmental aspects of children.

Age group terms

- #1 young children
- #2 infants
- #3 preschool children
- #4 preschools
- #5 early childhood education
- #6 nurseries
- #7 nursery schools
- #8 day nurseries
- #9 day care
- #10 day care centres
- #11 child rearing
- #12 early intervention programmes
- #13 prevention
- #14 children's centres (ft)
- #15 sure start (ft)
- #16 birth to three (ft)
- #17 foundation stage (ft)
- #18 early years (ft)
- #19 early years professional status (ft)
- #20 eyps (ft)
- #21 #1 OR #2 OR #3 ... #20

Narrowing the Gap general terms

- #22 need achievement
- #23 outcome based education
- #24 outcomes
- #25 learning
- #26 every child matters (ft)

- #27 ecm (ft)
- #28 narrowing the gap (ft)
- #29 #22 OR #23 OR #24 ... #28

- #30 #21 AND #29 206 hits, 32 marked

Achieving Economic Wellbeing terms

- #31 economic status
- #32 socioeconomic status
- #33 economic wellbeing
- #34 social deprivation
- #35 social exclusion
- #36 disadvantaged preschool children
- #37 disadvantaged young children
- #38 free school meals
- #39 low income families
- #40 poor families
- #41 poverty
- #42 child poverty (ft)
- #43 #31 OR #32 OR #33 ... #42

- #44 #21 AND #43 125 hits, 38 marked

Making a Positive Contribution terms

- #45 citizenship
- #46 citizen participation
- #47 social integration
- #48 active citizenship (ft)
- #49 civic engagement (ft)
- #50 positive contribution (ft)
- #51 #45 OR #46 OR #47 ... #50

- #52 #21 AND #51 13 hits, 5 marked

Staying Safe terms

- #53 bullying
- #54 child protection
- #55 child welfare
- #56 in care
- #57 looked after children (ft)
- #58 children at risk (ft)
- #59 safeguarding (ft)
- #60 vulnerable children (ft)
- #61 young carers (ft)
- #62 #53 OR #54 OR #55 ... #61

- #63 #21 AND #62 109 hits, 31 marked

Being Healthy terms

- #64 health
- #65 health care
- #66 wellbeing
- #67 disabled babies
- #68 disabled children
- #69 disabled infants
- #70 disabled preschool children
- #71 disabled young children
- #72 learning disabled children
- #73 learning disabled young children
- #74 special needs children
- #75 special needs preschool children
- #76 special needs young children
- #77 child health (ft)
- #78 children's health (ft)
- #79 additional educational needs (ft)
- #80 #64 OR #65 OR #66 ... #79

#81 #21 AND #80 845 hits: first 300 examined and 41 marked

Enjoying and Achieving terms

- #82 achievement
- #83 academic achievement
- #84 overachievement
- #85 underachievement
- #86 absence
- #87 absenteeism
- #88 attendance
- #89 child development
- #90 dropping out
- #91 enjoyment
- #92 exclusion
- #93 nonattendance
- #94 objectives
- #95 school exclusion
- #96 school phobia
- #97 suspension
- #98 truancy
- #99 #82 OR #83 OR #84 ... #98

#100 #21 AND #99 138 hits, 26 marked

Current Educational Research in the United Kingdom (CERUK *plus*)

CERUK *plus* contains current and recently-completed commissioned research, PhD level work and practitioner research, covering all aspects of education (all age ranges from early years to adult) and children's services.

Age group terms

- #1 young children
- #2 infants
- #3 infant education
- #4 infant to primary transition
- #5 preschool children
- #6 preschool education
- #7 preschool to primary transition
- #8 early childhood education
- #9 early childhood education and care
- #10 early years development and childcare partnerships
- #11 early years professional status
- #12 early years services
- #13 nursery education
- #14 day care
- #15 sure start
- #16 childrens centres
- #17 parenting skills
- #18 parenting support
- #19 early intervention schemes
- #20 foundation stage
- #21 #1 OR #2 OR #3 ... #20

Narrowing the Gap general terms

- #22 every child matters agenda
- #23 achievement
- #24 academic achievement
- #25 attainment
- #26 pupil performance
- #27 learning outcomes
- #28 learning progression
- #29 outcomes
- #30 outcomes of education
- #31 #22 OR #23 OR #24 ... #30

#32 #21 AND #31 46 hits, 12 marked

Achieving Economic Wellbeing terms

- #33 disadvantaged
- #34 poverty
- #35 child poverty
- #36 educational exclusion
- #37 social exclusion
- #38 social deprivation
- #39 low income families
- #40 socioeconomic indicators
- #41 socioeconomic status
- #42 free school meals
- #43 economic wellbeing
- #44 #33 OR #34 OR #35 ... #43

#45 #21 AND #44 23 hits, 10 marked

Making a Positive Contribution terms

#46 citizenship
#47 active citizenship
#48 civic engagement
#49 childrens rights
#50 social integration
#51 #46 OR #47 OR #48 OR #49 OR #50

#52 #21 AND #51 4 hits, 2 marked

Staying Safe terms

#53 child welfare
#54 pupil welfare
#55 wellbeing
#56 looked after children
#57 bullying
#58 vulnerable children
#59 children at risk
#60 children in need
#61 children as carers
#62 child protection
#63 child protection plans
#64 child protection register
#65 #53 OR #54 OR #55 ... #64

#66 #21 AND #65 11 hits, 3 marked

Being Healthy terms

#67 disabilities
#68 disabled children
#69 special educational needs
#70 additional educational needs
#71 health
#72 health care
#73 child health
#74 #67 OR #68 OR #69 ... #73

#75 #21 AND #74 67 hits, 17 marked

Enjoying and Achieving terms

#76 exclusions
#77 permanent exclusion
#78 attendance
#79 absenteeism
#80 unauthorised absence
#81 truancy
#82 dropouts

- #83 school phobia
- #84 school refusal
- #85 enjoying and achieving
- #86 enjoyment
- #87 child development
- #88 #76 OR #77 OR #78 ... #87

#89 #21 AND #88 63 hits, 6 marked

Overlap between the marked sets entailed that in total 40 projects were identified. 21 of these were found to have potentially relevant and readily available publications arising.

Social Care Online

This database, compiled by the Social Care Institute for Excellence (SCIE), provides information about all aspects of social care, from fostering, to mental health and human resources. Several keywords relating to outcomes over time were present, so a separate search was undertaken to explore the records indexed with those.

Age group terms

- #1 children
- #2 babies
- #3 pre-school children
- #4 school children
- #5 looked after children
- #6 vulnerable children
- #7 children in need
- #8 emotionally disturbed children
- #9 nurseries
- #10 child day care
- #11 parenting
- #12 family centres
- #13 children's trusts
- #14 early intervention
- #15 preventive practice
- #16 #1 OR #2 OR #3 ... #15

Outcomes terms

- #17 outcomes
- #18 short term outcomes
- #19 long term outcomes
- #20 #17 OR #18 OR #19

#21 #16 AND #20 388 hits, 90 marked

Narrowing the Gap general terms

#22	early years (ft)	
#23	early childhood (ft)	
#24	sure start (ft)	
#25	children's centres (ft)	
#26	foundation stage (ft)	
#27	ecm (ft)	
#28	every child matters (ft)	
#29	narrowing the gap (ft)	
#30	#22 OR #23 OR #24 ... #29	
#31	#20 AND #30	382 hits, 67 marked

Appendix 2: Literature summary template

FULL REFERENCE:	
ECM area (be healthy, stay safe, enjoy and achieve, positive contribution, economic wellbeing)	
REVIEW OF SOURCE	
Purpose/focus of literature (e.g. as stated in abstract)	
Project/programme focus (e.g. if source is about a particular intervention, what was the focus/brief description of the project)	
Impact/outcomes of programme (e.g. if source is about a particular intervention, what was the impact/were the outcomes of the project)	
Factors that facilitate effective working/good outcomes (for project/programme sources)	
Factors that challenge/hinder effective working/good outcomes (for project/programme sources)	
Key findings	
Implications for good practice	
Any other conclusions, key findings or recommendations	
NARROWING THE GAP	
Does the source include information on NARROWING THE GAP in outcomes/ What works in NtG?	
How has the gap been narrowed?	
What is the evidence for this?	
What are the examples of effective practice for NARROWING THE GAP?	

DESCRIPTION OF SOURCE	
Geographical focus (e.g. area/region/LA)	
When data collected (also duration i.e. 2002–04...)	
Participants (e.g. sample size, age, ethnicity, key characteristics, etc.)	
Method(s) (data collection methods, instruments, etc)	
Source/document type (e.g. journal article, website, etc.)	
Key references (e.g. those that majorly inform the article)	
Vulnerable groups focused on (e.g. SEN, looked after children, minority, black, ethnic groups, asylum seekers, children with medical needs, young carers, etc., etc.)	
REVIEW OF EVIDENCE	
Biases/caveats (e.g. to what extent is the research based on empirical evidence?)	
Reviewer's comments <ul style="list-style-type: none"> • Is the reported analysis adequate and correct? • Are the author's interpretation supported by the evidence? • Are there any biases/caveats raised or to be aware of? • Is there corroboration or triangulation of sources? 	
Relevance to review (high, medium, low)	
Date of review:	Reviewed by:

Appendix 3: Overview of the literature

This section provides more detail of the 58 sources summarised for the literature in terms of the ECM outcome areas and the vulnerable groups focused on.

ECM outcome areas

Sources were categorised as far as possible within the ECM outcome areas, e.g. those focused on cognitive or language development were classified under 'enjoy and achieve' and those focused on social development were classified under both 'enjoy and achieve' and 'be healthy'. Sources were categorised as follows (categories are not mutually exclusive):

- enjoy and achieve (39)
- be healthy (11)
- making a positive contribution (9)
- stay safe (6)
- economic wellbeing (2)
- all five ECM outcome areas (2).

Vulnerable groups

Classification of sources according to the type of children/families they focus on was as follows (categories are not mutually exclusive):

- Disadvantaged (16)
- Low socio-economic status (SES)/deprived (9)
- Vulnerable/at risk groups/multi-risk families and children/at risk of social exclusion (9)
- Not specified/general/all children (8)
- Behavioural, social and emotional problems/risk of offending/anti-social/criminal behaviour (5)
- Minority groups (5) including BME (2)

- SEN/At risk of SEN (4)
- Risk of/conduct disorder (3)
- Autistic Spectrum Disorder (2)
- Looked after children (1)
- Premature infants (1)
- Mental health (1).



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