



Public Health
England



UCL Institute of Health Equity

Local action on health inequalities:
**Good quality parenting
programmes and the
home to school transition**



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About the UCL Institute of Health Equity

The UCL Institute of Health Equity (IHE) is led by Professor Sir Michael Marmot and seeks to increase health equity through action on the social determinants of health, specifically in four areas: influencing global, national and local policies; advising on and learning from practice; building the evidence base; and capacity building. The Institute builds on previous work to tackle inequalities in health led by Professor Sir Michael Marmot and his team, including the 'Commission on Social Determinants of Health', 'Fair Society Healthy Lives' (The Marmot Review) and the 'Review of Social Determinants of Health and the Health Divide for the WHO European Region'.
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About this evidence review

This evidence review was commissioned by PHE and written by the Institute of Health Equity (IHE). There is also a summary briefing note available on this and other topics. This review is intended primarily for directors of public health, public health teams and local authorities. This review and the accompanying briefing are part of a series commissioned by PHE to describe and demonstrate effective, practical local action on a range of social determinants of health.

This evidence review was written for IHE by Angela Donkin.

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Key messages

1. In 2013, 52% of all children reached a 'good level of development' at age five, compared to 36% of children who were eligible for free school meals.
2. Mothers' actions are important from a very early stage. Pregnant women who have poor nutrition, who smoke, drink alcohol or engage in substance abuse, and women who do not breastfeed, are more likely to have children with poor health and development.
3. Parental circumstances can have an important influence on parenting ability. Lack of income, stress and mental health issues can all make it harder for parents to bond with their children and adopt positive parenting practices.
4. Poor nutrition, smoking, drinking and substance abuse during pregnancy, can all have negative impacts on children's health and development. Each of these is more prevalent in more disadvantaged socioeconomic groups. The same applies to not breastfeeding.
5. The quality of parenting affects children's long-term physical, emotional, social and educational outcomes and therefore differences in parenting between social groups have implications for health inequalities.
6. Positive, warm parenting, with firm boundaries and routines, supports social and emotional development and reduces behavioural problems.
7. There is evidence that a range of parenting programmes designed for families with children of a particular age are effective.
8. Parenting interventions could reduce inequalities in health across the social gradient if they result in better living conditions for families, higher maternal wellbeing, good parenting actions, or improved outcomes for children.
9. To reduce health inequalities, commissioning of parenting programmes should be part of a wider local system of measures to support parents. Good financial and emotional resources make it easier for parents to take good parenting actions.
10. A good transition from home or nursery into school is important, particularly for children living in more difficult circumstances, those with special needs, or for whom English is not a first language.
11. Good home to school transition programmes have been linked to better outcomes, particularly for at-risk groups, which means that they have a role to play in reducing inequalities in outcomes.
12. Providing open days, familiarisation lessons and visits are linked with children making a better adjustment to the school environment. Support for parents is also important to reduce anxiety and social isolation.

13. There is evidence that transition programmes are also more likely to be successful where they focus on the whole child, implement a variety of practices, provide targeted support for at-risk groups, are flexible and responsive to local needs, ensure strong leadership and high-quality delivery, share information and proactively seek it, and ensure good communication between all parties.

Introduction

Early intervention programmes and strategies are designed to prevent poor outcomes later in life; they may be implemented at any time from conception to the onset of adulthood. This evidence review focuses on two areas of early intervention in childhood: increasing access to parenting programmes and easing children's transition between home and school, with a particular focus on interventions to reduce inequalities in health.

Evaluations from the UK and other countries show a positive effect of parenting interventions on outcomes and behaviours that we know are linked to positive health and development outcomes for children but there is a gap in the evidence on the impact of this type of intervention for reducing health inequalities.

Home to school transition programmes can be effective in improving outcomes for children from more disadvantaged socio-economic groups more than for children from more advantaged socio-economic groups, although longer term impacts on health inequalities can only be inferred because the health impacts of such programmes have not been studied. However, there is some evidence that increasing children's engagement with school has a positive effect on grades, which could improve economic circumstances and thus reduce inequalities in later life.

This paper synthesises key literature, advice from experts and previous Institute of Health Equity work, to provide a summary of the importance of parenting and the transition between home and school, along with some examples of interventions that could reduce inequalities. It is a discursive review of key evidence and provides practical information for local areas. The evidence presented is drawn both studies in England and studies undertaken in other countries to provide rich information on approaches that can support positive parenting and may help to reduce health inequalities. Readers should, however, bear in mind that some of the approaches have not been tested in England.

Two key sources of further information on effective interventions are the websites of the Early Intervention Foundation and the Department for Education, both of which have user-friendly pages and help for commissioners. Links to these websites are provided later in this paper in a list of key additional sources (appendix 1).

This paper is part of a collection of evidence reviews commissioned by Public Health England (PHE) and written by the UCL Institute of Health Equity. It informs two short briefing papers for local decision makers that are also available, alongside the further evidence reviews.

Throughout the paper, we have highlighted certain evidence and resources in boxes such as this one. These are labelled in the following ways:

Intervention – an example of a strategy, programme or initiative, taken by a local area, organisation or national government, that it is felt may contribute to reducing health inequalities by acting on the social determinants of health. It has either been evaluated and shown to be effective, or is considered to be an example of promising action.

Key message(s) – summaries of the key findings or action proposed in this paper.

Key literature – summaries of academic studies or other reports which provide key information relevant to the chapter, often taking into account a range of different programmes or projects.

1. What is early intervention?

For the purposes of this review, 'early intervention' is taken to refer to programmes and strategies that are implemented at any time from conception to the onset of adulthood that aim to prevent poor outcomes later in life.

'Parenting programmes' generally consist of interventions and strategies that aim to improve the way in which parents interact with their children and provide stimulation for them. While these programmes are important and can help reduce inequalities in health, additional strategies such as those that improve parents' mental health, financial position, and reduce domestic violence are also of significance in improving the abilities of parents to provide good parenting and support to their children. The case studies that we provide fall into the first category, and some of these integrate support for the parent. However, a fuller suite of interventions may need to be considered to achieve wider impacts on capacity to parent well.

'Home to school transition programmes' are interventions that aim to ensure a smooth transition from the home, or nursery setting, into primary school, which give children better chances of good outcomes.

Where we use the term 'parents', this can be extended to all care-givers, for example adoptive parents, institutional parents and members of extended families providing regular or intensive care.

2. Early intervention and health inequalities

Key messages

1. In 2013, 52% of all children reached a 'good level of development' at age five according to the Department for Education, compared to 36% of children who were eligible for free school meals.
2. Parental circumstances can have an important influence on their parenting ability. A lack of income and stress make it difficult to afford healthy food and accommodation for the family, and can lead to coping strategies that provide a short-term relief, such as drinking and smoking. Stress and mental health issues can make it harder for parents to bond with their children and to be positive.
3. Poorer health behaviours in pregnancy, such as poor nutrition, smoking, drinking and substance abuse can result in low birth weight which is linked to poorer subsequent health outcomes for the child. Poor health behaviours and low birth weight are more prevalent in more disadvantaged socio-economic groups than in more advantaged groups.
4. Breastfeeding has a positive impact on later health outcomes, but is less prevalent in more disadvantaged socio-economic groups than in more advantaged groups.
5. Parents need to engage positively with children to help form 'secure attachment'. Insecure attachment is associated with poorer language and behaviour before school, aggression, defiance, hyperactivity, likelihood of being NEET, domestic violence, alcohol and substance abuse, strokes, heart attacks and high blood pressure, and suffering pain, for example from headaches and arthritis, less healthy behaviours and driving at higher speeds.¹ Another paper suggests that those with insecure attachment styles are more likely than others to make primary care appointments.²
6. Having a good home learning environment – for example in which parents talk and listen to their children, reading to them every day, and engage positively with them, is associated with positive outcomes.

2.1: Early years

Healthy early childhood development – including physical, social-emotional and cognitive development – is fundamental for good health and social outcomes not only during childhood, but also throughout the life-course.³ Giving every child the best start in life is a priority recommendation from the Marmot Review: the report recognised that there are large variations in early child development that are socially graded and largely avoidable, which impact on outcomes in childhood, later life and health and mortality.⁴

Importantly, the literature does not suggest that inequalities in outcomes are inevitable, but rather that for the majority¹, outcomes could be improved.⁵ The Institute for Health Equity's 2012 report 'An equal start' reviewed the literature on children's development and set out 21 measurable ways to improve children's life chances across the social gradient in the early years. The outcomes are grouped into three main areas listed in appendix 2⁶: i) those aspects of children's development that are predictive of positive outcomes in the future such as health, educational achievement and economic stability; ii) parenting behaviours and practices that are linked to positive outcomes in children; and iii) those aspects of parents' lives that are linked to better parenting and improved children's outcomes. The report illustrates that the outcomes and the conditions that influence children are socially graded: they are worse in more disadvantaged socio-economic groups and improve progressively as socio-economic status rises.

2.2: Later childhood, adolescence and breaking the cycle of disadvantage

Not all 'early intervention' has to take place in the early years of life but good parenting should start then. There is some evidence to suggest that the influence of good intervention in the early years will begin to fade if the changes made are not sustained.⁷

Neurological and biological changes in adolescence herald the beginning of another period of brain development. At this time teenagers can become more interested in sensation-seeking (which is linked to substance misuse and sexual desire). This is also a time of synaptic pruning: the most frequently used neural pathways are strengthened and the less frequently used die off. At this point, parents and the school system need to nurture teenagers carefully by giving firm boundaries, experience and opportunity. As sexual relationships begin to have more importance, this is also a good time to educate the future generation of parents, to promote positive examples of relationships and to give teenagers the tools to make good lifestyle decisions and have resilience.⁸

2.3: How can early intervention impact on longer term health outcomes and inequalities? A focus on parenting

Improving parenting is one of the ways to improve children's short- and long-term outcomes. For example, Sylva et al found that a child's relationships and learning experiences in the family had more influence on future achievement than innate ability, material circumstances or the quality of pre-school and school provision (although these also had a significant impact).⁹ The following four subsections briefly describe some of the main ways in which parents' behaviours can impact children's outcomes, and the drivers of inequalities in these behaviours. This paper takes a wide definition of parenting to include not just the way that parents interact with their children – often the focus of parenting programmes – but also how all their behaviours might impact on health inequalities.

Before birth

How mothers look after themselves during pregnancy can have a significant impact on the health of their children and on health inequalities. For example, maternal nutrition and health behaviours can impact on the likelihood of having a baby whose weight is outside either ends of the ideal birth weight range. Both low and high birth weights outside the normal range are associated with an increased risk of childhood obesity,¹⁰ diabetes and cardiovascular disease later in life. In addition for each kilogramme increase in birth weight, improvements can be seen in cognitive

¹ The evidence for those with learning disorders is less encouraging.

tasks and educational achievement.¹¹ Alcohol consumption in pregnancy can lead to brain damage (foetal alcohol spectrum disorder),¹² and smoking during pregnancy can lead to low birth weight, significant reduction in growth of head circumference, abdominal circumference and femur length. Pre-natal smoking is also associated with a 20 to 30% higher likelihood of stillbirth and a 200% increase in the incidence of sudden unexpected death in infancy.¹³

Action to improve parental health behaviours in pregnancy is one way to reduce health inequalities; higher rates of poor pre-natal care, substance abuse, poor nutrition during pregnancy and smoking are found further down the social gradient, as are lower birth weights.¹⁴ We also know that ante-natal maternal stress and poor maternal mental health are more prevalent in more disadvantaged socio-economic groups and have been found to impact on foetal development,¹⁵ with maternal depression contributing to low birth weight.^{16 17}

Breastfeeding and later nutrition

Two meta-analyses each looking at over 60 studies showed that breastfeeding, compared with formula feeding, is associated with a small but significant decreased risk of later obesity even after adjusting for confounders such as smoking status and socio-economic status.^{18 19} Breastfeeding has also been associated with decreased risk of other diseases in childhood: gastrointestinal tract infections, middle ear infections, respiratory conditions and necrotising enterocolitis; and breast cancer in later life. A report for UNICEF UK found that for just these five illnesses, moderate increases in breastfeeding would translate into cost savings for the NHS of £40 million and tens of thousands of fewer hospital admissions and GP consultations. The same report found that breastfeeding was found to improve cognitive ability and reduce childhood obesity and sudden infant death syndrome (SIDS) – and again it suggested that modest improvements in breastfeeding rates could save millions of pounds and, in the case of SIDS, many children's lives.²⁰

Those in more disadvantaged socio-economic groups are less likely to breastfeed than those in higher groups.²¹ Efforts to improve the level of maternal breastfeeding that were applied in a universal yet proportionate way would be likely to reduce inequalities in health. For example, a joint venture by primary care trusts and 12 children's centres in Blackpool led to an increase in breastfeeding rates of 16%, with an estimated return of £1.56 per £1 invested, and estimated savings to the Department of Health of £57,700 over a two-year period.²²

The Department of Health recommends that infants should be gradually introduced to a varied balanced diet from around six months.²³ However, mothers from more disadvantaged socio-economic groups are more likely to introduce solids before four months and to feed their babies more sugar than those from more advantaged socio-economic groups.^{21 24}

Finally, people living on low incomes tend to have less healthy diets than people who are better off.²⁵ There is some evidence to suggest that this gap may be widening. Purchase of fruit and vegetables has declined since 2007, and that decline has been most marked in low income households.²⁶ Though the picture is complex, with the rapid recent growth of food banks growing numbers of people appear to be facing food insecurity.²⁷ Efforts to help parents give their children a healthier diet need to consider context, particularly adverse economic circumstances.

Positive parenting and parental mental health

Some parenting practices are associated with improved outcomes for children. In summary, parents who are more responsive to their children's needs, who bond with their children early using positive interaction and engaging them in conversations, who set firm boundaries on acceptable behaviour and bedtimes and who use encouraging words rather than criticism, are likely to be helping to support their children to reach the best possible outcomes. The literature in this area is summarised in greater detail in 'An equal start'.⁶

Secure attachment is one of the key early goals of positive parenting and it needs to start from birth. Parents need to be caring and attentive to children's needs, to communicate and stimulate them even though they cannot talk. However, while these behaviours might seem natural, they do not always happen. Their absence can lead to cognitive impairment and can affect the degree to which people can deal with intimacy, maintain relationships, and experience compassion, empathy and resilience.

Insecure attachment is associated with poorer language and behaviour before school, and with significantly elevated levels of aggression, defiance and hyperactivity.²⁸ Negative effects continue into life, with insecure children more likely to leave school without further education, employment or training ahead of them,²⁸ be more likely to perpetuate domestic violence,²⁹ and have higher levels of alcohol and substance abuse than secure children.^{30 31} In addition, insecure attachment is linked to a higher risk for a number of health conditions, including strokes, heart attacks and high blood pressure, and suffering pain, for example from headaches and arthritis.³² It has been shown that people with secure attachment show more healthy behaviours such as taking exercise, not smoking, not misusing substances and alcohol and driving at appropriate speeds.¹ Another paper suggests that those with insecure attachment styles are more likely to make primary care appointments². A report from the US about disadvantaged children found that securely attached children are more resilient to poverty, family instability, parental stress and depression. Boys growing up in poverty were two-and-a-half times less likely to display behavioural problems at school if they formed secure attachments with parents in their early years.

Stress, depression and alcohol or drug misuse can all lead to parents displaying above-average irrational and volatile behaviour, or being unable to focus on their child's development and needs, all of which can impair the parent-child relationship. For example, these factors can disrupt the development of secure attachment in the child as well as the mother's ability to provide positive, responsive parenting and learning opportunities.³³ Children born to mothers with poor mental health, and particularly those children exposed to prolonged or repeated maternal mental ill health, have been found to display delayed language development, greater levels of misconduct, negative social and emotional development, and physical health, and lower levels of attachment, than those with mothers in good mental health.⁶

As children grow, it is important to maintain positive behaviours using encouragement and authoritative parenting that sets boundaries but is not overpowering. In 'An equal start' we describe evidence that finds that parents from more disadvantaged socio-economic groups are less likely to encourage children and enforce boundaries such as regular bedtimes than those from more advantaged socio-economic groups.⁶

Skills and literacy

Children from more advantaged socio-economic groups have been shown to use a greater variety of words than other children.³⁴ A number of studies have tried to explain why poor children lag behind their better-off peers in terms of the development of language. The evidence suggests that parents are the strongest drivers and enablers of children's communication and language development.³⁵

In their study of vocabulary in the US, Hart and Risley found that children of poorer parents (classified as parents on welfare in the US context) heard half as many words per hour as their working-class peers and less than a third of the words of their peers from professional families. The impact was cumulative so that by the age of four a child of a poorer family had on average heard 30 million fewer words than a child from a middle-income family.³⁶

Early vocabulary scores are strong predictors of reading ability at ages seven and ten, and poor vocabulary is a predictor of poor later life outcomes, including unemployment, low earnings and ill health.⁶

2.4: Home to school transition

This section considers the evidence on strategies that are effective for a successful home to school transition, in other words, the transfer from home or early years setting into primary school. The time when a child makes the transition to school can be critical in terms of his or her development because it can impact on subsequent level of engagement with school. If school programmes follow on from a positive early start (discussed above), children should be arriving at school with good behaviours, motivation and language skills, which should also aid transition.

The majority of children make a successful transition at key points throughout their education.^{37 38} However, there are certain groups of children and young people who are more likely to find transitions challenging compared with their peers. Individuals who experience difficulties are more likely to be from vulnerable groups, including those from deprived backgrounds, and those with special educational needs. In addition, children who are the youngest in their school year group may experience difficulties.³⁸ School staff have also reported that children with English as an additional language were more likely to experience difficult transitions.³⁹

Children with poor socio-emotional skills, low self-esteem or low self-confidence may be particularly vulnerable during transition, due to a lack of skills that would otherwise provide them with stronger emotional resilience, to help them cope with new expectations and social relationships.³⁹ Miller et al⁴⁰ and McIntyre et al⁴¹ suggested that transition can be more challenging for children from poorer socio-economic groups because of the additional risk factors present. Both studies looked at children in the early years and highlighted the fact that the competencies needed to ensure a successful transition at this age, such as turn-taking and the ability to respond appropriately to different situations, may be more difficult if children have had limited opportunities to socialise and regulate their emotions.^{40 41}

Studies have identified a range of common anxieties and challenges faced by children and young people in adjusting to new social and physical environments.^{38 42} Children have a number of anxieties related to changes and frequently worry about unknown or higher expectations at school and bullying, which can cause emotional difficulties. These anxieties are well founded: children who have been at home, and who are not aware of the level of expectation of those in their year, could

easily lose self-esteem and worry about keeping up if they recognise they are less able. Parents may also find transition difficult and efforts to ensure good transition can help to reduce stress and anxiety, ensure continuation of support by services and address social isolation in parents where this is an issue.

How can poor transition impact on health inequalities?

Ensuring effective transition is important because previous literature reviews have shown a link between poor transition and less successful outcomes. Generally, the use of transition practices (for example, open days and familiarisation lessons) is associated with greater adjustment to the new school environment and improved social and emotional skills among children and young people. However, findings on the impact of such practices on academic outcomes are inconsistent, with some improvement in young people's attainment found in some academic subjects, but no change found in their attainment in other subjects, although Bryan et al found that at-risk groups benefit more in this respect, with a notable improvement in their grades.^{43 44} Other research also supports the finding that those who are at risk of difficulties benefit the most.^{45 46} Therefore there is the potential for home to school transition programmes to be part of a suite of work to reduce inequalities in health.

It is not only children who might find transition difficult: so might some parents. Transition practices that enable parents to meet each other and familiarise themselves with the school and what is expected of them can help to reduce anxiety and social isolation. Parents who have been in contact with children's centres or other early years services may no longer have the same level of support and so professionals should share information about available continuing support with the parents, and with the school if relevant. In addition the school day may be difficult to manage for working parents, and slow transitions where children start part-time for some weeks can be even harder, especially where families are large, as these practices warrant parents to take a large percentage of their annual leave in order to be at home for their children. Early warning of such transitions is important so that parents can ask for holiday time to cover this period if needed. Services such as breakfast clubs and after school provision are helpful for these parents, as are transition events that are scheduled at different times, including in the evenings.

3. Scale of the problem

The following statistics provide a helpful summary as to the scale of the early years challenge. It is of particular concern that just 52% of children in 2013 reached a 'good level of development' by age five, and that the achievement gap between the lowest attaining 20% of children and the mean is 36.6%.⁴⁷

1. By age three, children in families with incomes below the poverty line are eight months behind in language and nine months behind in school readiness compared with those with incomes above the poverty line.⁴⁸
2. Poor early outcomes have an impact across the life course. One study noted that approximately half of the relationship between socio-economic status and mortality rates in later life can be explained by early life experience, including its influence on adult smoking rates.⁴⁹ A child's development score at just 22 months can serve as an accurate predictor of educational outcomes when they are 26.⁵⁰
3. A single reported adverse experience in early life increases the risk of attempted suicide between two and five times more than the average rate.⁵¹
4. One in four children is overweight or obese when they start school,⁵² which puts them at greater risk of cardiovascular disease and diabetes in later life.
5. The costs of caring for pre-term birth and low birth weight babies, from birth to the age of 18, are substantial, at around £3 billion (for England and Wales) for each annual cohort of new births.⁵³
6. The Baby Bonds report states that 40% of children have insecure attachment.²⁸
7. A lack of attachment and bonding has been related to the high budgets associated with looked after children and children in contact with the youth justice system. For example the cost of youth crime alone was estimated at £8.5bn-£11bn by the National Audit Office in 2009, the costs of mental health services at £105.2bn, and the costs of children in care at £2.9bn, of which half is spent on abused children.^{54 55} (Another recent review shows the costs and benefits of treating conduct disorder.)⁵⁶
8. The number of UK adults who are functionally illiterate is estimated at six to eight million, 20% of the population.⁵⁷ The World Literacy Foundation focuses on the economic and social cost of illiteracy in the UK. It states that as well as the one in five who is functionally illiterate, 8.5 million adults have the numeracy levels of a ten-year old. The Foundation calculates that this costs the national economy £81bn a year in lost earnings and higher welfare spending.⁵⁸

4. What works to improve early intervention

4.1: Parenting programmes

As stated earlier in this paper, there are no evaluations that have looked at the impact of parenting programmes on population-wide health inequalities. The evidence presented is drawn from a range of English examples, as well as international examples where there is good evidence, even if interventions have not been tested in England. This should be borne in mind when considering the transferability of approaches which have been tried in different social and policy and contexts. Therefore we have set out, based on our review, those intermediate outcomes, that if improved, are likely to lead to a reduction in health inequalities if improved at a significant scale, and proportionate to need.

We suggest that those selecting parenting programmes choose programmes that improve these intermediate outcomes, set out in the box below. An extended list of outcomes that need to be improved for children up to age five, developed for children's centres, can be found in appendix 2, taken from 'An equal start'.⁶

Key messages: outcomes that parenting interventions should aim for to reduce health inequalities

Parenting interventions could reduce inequalities in health across the social gradient if they result in:

Better living conditions for families

1. More parents economically secure, including in pregnancy.
2. More parents free from domestic violence.

Higher maternal wellbeing

3. More mothers with good mental health, including in pregnancy.
4. Fewer women who smoke, drink and take drugs during pregnancy.
5. Fewer obese mothers.
6. More women breastfeeding.

Good parenting actions

7. More children with secure attachment: more parents engaging positively with, and actively listening to, their children.
8. An increase in the number and frequency of parents regularly talking to their children using a wide range of sentence structures and reading to their children every day.
9. More parents setting and reinforcing boundaries.

Improved outcomes for children

10. Improved cognitive, social and emotional, language and physical health outcomes.

Parenting programmes are generally considered to be interventions and strategies that aim to improve the way in which parents interact and provide stimulation for their children, and given this, the case studies that we present in this paper are selected for their ability to improve parenting actions. Some of the effective interventions also address other outcomes, for instance, the wellbeing of the mother through improving social networks, or the financial position of the mother by building self-esteem and skills. Children's centres can have a key role in leading the improvement of other outcomes. The statutory framework for children's centres⁵⁹ 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 adults 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.

Effective children's centres, that reach many families, can therefore play a key role in improving health inequalities.

Universal services

Universal services for children and their families are the bedrock of support to good parenting practice. '

Key literature: effective universal children's centres and local services

A range of research suggests that children's centres can have a positive impact on children's health and wellbeing by working effectively with parents in the local area. Following the 21 outcomes identified in 'An equal start',⁶ which include positive parenting practices, ensuring effective outreach to as many parents as possible would provide the foundations for a reduction in health inequalities. The evaluation of Sure Start in the UK has shown mixed results, attributed to variations in the effectiveness of different centres. There is much on going work to ensure that children's centres do deliver effectively. In addition, in the US, there have been longer term valuations of this model that have shown positive results:

USA Head Start

USA Head Start is a centre and home-based intervention. The evaluations have shown improvements in children's cognitive-language development, social-emotional development (by independent observation), higher emotional engagement with parents, sustained attention, and lower aggressive behaviours.

Chicago child parent centres

A 19-year follow-up of the children showed positive outcomes in terms of retention in education, criminality, employment, maltreatment of children, and depression .

Affordable high quality child-care

Local areas that ensure that children's centres, private nurseries and schools provide affordable, high quality early years provision will also help to improve outcomes, particularly for children from low-income families, and help to improve the financial situation of parents who can afford to go out to work. Good quality out-of-home childcare has shown to particularly improve outcomes for children from low-income families.

The healthy child programme, midwives and health visitors

Midwives and health visitors are trained to be able to effectively support mothers with positive parenting, breastfeeding, cessation of unhealthy behaviours and building skills and self-esteem.

A core aspect of good parenting is supporting children to achieve good age appropriate language and communication skills, and behaviour. For school readiness there are some simple but necessary regular habits that support achievement of higher educational attainment scores and improved social and emotional capabilities.

Key literature: things parents should be supported to do

Evidence from the Millennium Cohort Study showed inequalities in language development at age three. The researchers found that reading daily to a child, having a regular bedtime, regular visits to the library and daily practising of rhymes are all independently associated with an increased likelihood of an advanced reading at age three, even when the significant confounders of gender, age of parents, indicators of poverty/wealth, country of origin and ethnicity were taken into account. For school readiness, reading daily, regular bedtimes, visiting the library frequently and practising the alphabet more than six times a week were significantly associated with high scores, again independent of confounders.⁴⁸ The authors have also looked at childhood obesity, and they found that having sufficient sleep is important for appetite regulation. It has been found that being read to at age five was an important protective factor against poverty at age 30.⁶

Early years interventions

There are some specific interventions that can help the parents of young children, and have an impact on children's short and long term outcomes.

Intervention: Family Nurse Partnership (FNP)

Description: the FNP offers intensive and structured home visiting, delivered by specially trained nurses (family nurses), from early pregnancy until the child is two. The FNP has three aims: to improve pregnancy outcomes, child health and development and parents' economic self-sufficiency.

Coverage: for first-time mothers (and their families) aged under 19

Why have we chosen this intervention? This intervention has the strongest evidence base for health improvement and evidence suggests that it will improve the health and socio-economic position of participants. However, it is highly targeted and will not reach many parents.

Impact and evidence: over 30 years of research in the US on FNP has shown significant benefits for vulnerable young families in the short, medium and long term across a wide range of outcomes. There are positive effects on: breastfeeding, smoking, mental health, emergency visits (with a third fewer visits at age two and four), cognitive and language development and children's behaviour (including attention, impulse control, and sociability). The 15-year follow-up randomised control trial showed the on-going positive impacts in terms of fewer arrests, fewer teenage pregnancies, households less likely to be on welfare and less child abuse. The best outcomes are seen for children of mothers with low emotional intelligence and/or poor mental health prior to programme participation.

FNP is currently being evaluated in the UK. Early results indicate that the programme can be delivered well in England if the programme model is adhered to faithfully. The evaluation found that young mothers and fathers liked the programme and engaged well with it and that there is good potential for positive outcomes and longer-term cost savings. It also showed that mothers participating in the FNP: stopped smoking in pregnancy or smoked fewer cigarettes, initiated breast-feeding at a high rate, coped better with pregnancy, labour and parenthood, had increased confidence and aspirations for the future, were returning to education and taking up paid employment, were very positive about their parenting capacity and reported high levels of warm parenting. In addition, FNP children appear to be developing in line with the general population, which is very promising as children born to mothers aged under 19 usually fare much worse than their peers.

Cost-effectiveness: in the US, benefit to cost ratios fall in the range of 3:1 to 5:1, depending on the study. Within the UK context, a social benefit to cost ratio of 1.84 has been calculated: the estimated value of total benefits to society as a whole, per £1 spent.

Key literature: other interventions for very young children

Lay workers

In a study based in South Africa, previously untrained lay community workers provided support and guidance in parenting, the aim being to promote sensitive and responsive parenting and secure infant attachment to the mother. A control group received no therapeutic input. The lay workers used a manual developed in the UK for health visitors, based on a book called 'The social baby' by Lynne Murray and Liz Andrews. The use of community workers is of interest because there is the potential that community engagement will link to sustained improvement and reach less accessible groups.

The intervention was delivered from late pregnancy to six months post birth.

Mothers in the intervention group were significantly more sensitive at six and 12 months compared with control-group mothers. The intervention was associated with a higher rate of secure infant attachments at 18 months (75% securely attached, compared with 63% in the control group). Although maternal depressive disorder was not significantly reduced, the intervention had a benefit in terms of reduced maternal depressed mood at six months.⁶⁰

Skin to skin contact ('kangaroo care')

Promoting skin to skin contact is important. The evidence shows that 'kangaroo care' by mothers of healthy, full-term infants is associated with a range of improved outcomes including mother–infant interaction, attachment behaviours, infant behaviour, and infant physical symptomatology. There is, however, insufficient evidence to suggest a significant effect for low birth weight babies.⁶¹

Mother–infant transaction programme

This intervention started with a pre-programme debriefing with parents where they could talk about experiences so far and where both parents were encouraged to attend the programme, carried out in Norway. After the introductory session the intervention consisted of one-hour daily sessions with both parents and their infant on seven consecutive days, starting one week before planned discharge from hospital after giving birth. Each session addressed an aspect such as the infant's reflexes, self-regulation, signs of distress and predominant states and how the parents could bring the infant into a quiet alert state for social interaction. The daily in-hospital sessions were followed by four home visits by the same nurse three, 14, 30 and 90 days after discharge. A randomised control trial follow-up at age five found significant improvement in mean IQ scores in favour of the intervention group and an earlier evaluation of MITP had shown increased intelligence at age nine.⁶²

Early Intervention – ages 3-5 years

Intervention: Incredible Years (ages 3-4 years)

Description: Incredible Years is a parenting group programme designed to help parents improve their child's behaviour. Essentially, parents and teachers learn to give more attention to positive behaviours than negative behaviours and manage children's misbehaviour by using proactive discipline and appropriate problem-solving. The foundation of the Incredible Years programme focuses on building warm and nurturing parent-child and teacher-child relationships through child directed play, social and emotion coaching, praise and incentives.

Type: it was designed for children aged 3-4 years already exhibiting challenging behaviour. It can however be rolled out more widely. Some of these ideas (rewarding good behaviour and ignoring bad behaviour) are already permeating through society, for example, through television programmes such as Supernanny, and so this has the potential to be utilised universally.

Why have we chosen this intervention? The intervention is shown to result in calmer, less depressed and more positive parents, which in turn will result in better health. Given that there is more anxiety and depression in more disadvantaged socio-economic groups, this should help flatten the gradient. Better behaviour in school tends to improve the chance of economic security in later life and the health benefits associated with that.

Impact and evidence: a large number of evaluations, including randomised control trials, have taken place in other countries. Findings consistently show positive outcomes in terms of reduction of disruptive and aggressive behaviour, improvements in pro-social behaviour and interaction with parents, teachers and peers; parents further develop parenting skills, learn new techniques and communicate effectively and more positively with their children, improve relationships, establish rules and routines and manage anger and conflict. Evidence of impact available from www.incredibleyears.com/evaluation/evaluation-studies.htm

Cost-effectiveness: there are large lifetime costs associated with conduct disorder, ranging from £75,000 to £225,000 per child. Analysis of the Incredible Years group-based parent training focused on conduct programmes, suggests costs of intervening are £1,211 per child at risk, with an overall benefit to the individual and society of £1,654, a benefit-cost ratio of 1.37.

Intervention: HIPPY for 3-5 year olds

(Home instruction for parents of pre-school youngsters programme)

Description: HIPPY is a home-based, family-focused programme that helps parents provide educational enrichment for their pre-school children aged 3-5. The idea is to spend 15 minutes a day at the kitchen table with a storybook, a puzzle, or a learning game, and it aims to make children who enter kindergarten ready to succeed, with parents ready to support them throughout their educational careers. Believing that parents play a critical role in their children's education, the HIPPY programme seeks to support those parents who may not feel sufficiently confident to prepare their children for what they consider to be 'school knowledge'. HIPPY is designed to give parents the tools and support they need to help their children learn in their own homes.

Coverage: Parents of 3-5 year olds; it can be applied universally. HIPPY is delivered by parents who then train other parents and so has the advantage of not needing large numbers of highly trained staff.

Why have we chosen this intervention? By reading and engaging positively with children, school readiness should improve and the inequalities in language use and literacy that we see should be reduced by the time they start school. This will impact on longer term inequalities in education and economic security that influence health outcomes. HIPPY also has the advantage of being delivered by parents which could improve sustainability and be a relatively cheap way of intervening.

Impact and evidence: 17 evaluations of the programme were carried out in seven different countries. Findings consistently report positive outcomes in terms of children's higher achievement scores and cognitive development scores, parents' attitudes towards and involvement with education and parent-child relationships. Another relevant finding was that more vulnerable families needed greater support to achieve similar results. The evaluations are summarised in Westheimer M (2003). Summaries of evaluations can also be found at www.hippy-international.org/research/archive

Interventions for older children

While early years are important there are opportunities for supporting children and their parents at later phases of development.

Intervention: Families and Schools Together (FAST) for ages 3-11

Description: parents and children attend eight weekly sessions in which parents learn how to manage their stress and reduce their isolation, become more involved in their child's school, develop a warm and supportive relationship with their child and encourage their child's pro-social behaviour. After parents 'graduate' from the eight-week programme, they continue to meet together through parents' sessions that occur on a monthly basis.

Coverage: Families and Schools Together (FAST) can be universal. It is for any parent or carer of a child aged 3-11 who is interested in supporting their child's development.

Why have we chosen this intervention? By acting to reduce parental stress and improve children's social skills, this should have an impact on reducing some of the main causes of inequalities later in life.

Evidence and impact: FAST has strong evidence of improving children's social skills and reducing their aggression and anxiety. FAST also has evidence of helping parents make friends and reducing social isolation. The 2012 aggregate evaluation report of 107 primary schools in England conducting FAST shows a wider range of outcomes, including a reduction in family conflict of 22%, a reduction in conduct problems of 18%, a reduction in hyperactivity of 13%, and a reduction in emotional symptoms of 20%.

Adolescence can be a time when children start to become more interested in riskier behaviours, as mentioned above. The Early Intervention Foundation summarised the Chicago Blueprints research in this area and the majority of effective programmes targeted specifically at the issue of alcohol and drug misuse or crime are based in school settingsⁱⁱ. Functional Family Therapy (FFT) (see box) is an example of an effective targeted programme, but universal provision, perhaps through schools, might be more effective in reducing health inequalities and prevention of risky behaviour.

ⁱⁱ Effective interventions for older children at school included: project towards no drug abuse; Guiding Good Choices; Life Skills Training; Multidimensional Treatment Foster Care; and Multisystemic Therapy for Juvenile Offenders. The latter is not administered in a school setting but in the community or at home.

Intervention: Functional Family Therapy (FFT) for ages 11-18

Description: FFT primarily aims to reduce youth offending, substance misuse and out-of-home placement. The young person and his or her parents attend eight to 30 weekly sessions (depending on need), where they develop strategies for improving family functioning and addressing the young person's behaviour.

Coverage: a targeted programme for families with a young person, aged 11-18, engaging in persistent antisocial behaviour, substance misuse and/or crime.

Evidence and impact: there is a strong evidence base that shows that FFT leads to improved child behaviour, reduced risk of child substance misuse, reduced risk of child offending, and reduced parent stress/depression/mental health problems.

Delivery: FFT can be delivered in a variety of settings, for instance the family home, community centres or faith-based centres, and clinics/health centres.

Cost-effectiveness: FFT has been calculated to have a social benefit-cost ratio of 12.32, which is particularly high, and is driven by the reduction of costs to the criminal justice system.

Other sources of information on effective programmes

The programmes that have been described provide some examples that could help to reduce health inequalities. Some of these also feature in the list in table 1 from the Early Intervention Foundation, which we believe readers may find helpful.

Table 1. Examples of evidence-based interventions and programmes

Programme	Target group	Setting	Outcomes improved^a	Social benefit-cost ratio^b
Family Nurse Partnership	First-time mothers	Home	Disruptive behaviour	1.94
Parent-child interaction therapy	Age 2-12	Social services	ADHD Disruptive behaviour	2.37
Incredible Years parent training	Age 2-12	Community	ADHD Disruptive behaviour Internalising behaviour	1.37
Raising healthy children	Age 5-11	School	Crime Teen pregnancy School completion	
Functional Family Therapy	Age 11-18 at risk of delinquency	Youth justice Social services	Crime	12.32
Good behaviour game	Age 6-8	School	Alcohol/drug use	26.9
Project towards no drug abuse	Age 14-18	School	Drug use	8.61
Guiding good choices	Age 9-14	School	Alcohol/drug use Crime	2.92
Life skills training	Age 11-14	School	Alcohol/drug use Crime	10.67
Multidimensional treatment foster care	Adolescents at risk of care	School	Crime Teen pregnancy	2.64
Multisystemic therapy for juvenile offenders	Age 12-17 with previous arrests	Community Home	Crime	2.04

Programme	Target group	Setting	Outcomes improved ^a	Social benefit-cost ratio ^b
Triple P positive parenting programme	Ages 0-16	Community Home Clinic	Child abuse/neglect Care placements	5.05
Family Nurse Partnership	First-time mothers	Home	Child abuse/neglect	1.94
Good behaviour game	Ages 6-8	School	Depression	26.9
Individual cognitive behavioural therapy	Ages 12-18	Various	Depression	2.18
Good behaviour game	Ages 6-8	School	Suicide risk	26.9
Bright Bodies	Ages 5-18	Home Clinic	BMI Body fat percentage Insulin resistance	
Positive action	Ages 5-14	School	Diet Exercise	
High scope Perry pre-school	Ages 0-5 in poverty	Home School	Test scores Special education	1.61
Targeted reading intervention	Ages 5-7 with reading difficulties	School	Test scores	7.98
Behavioural monitoring and reinforcement programme	Ages 12-14 with school problems	School	Test scores	1.56
Early learning and literacy model	Ages 4-5 with low income	Home School	Letter recognition Emerging literacy	

Source: The Early Intervention Foundation (EIF) from Investing in Children and Blueprints for Healthy Youth Development. Programmes listed are an indication of the available evidence, and do not constitute an EIF recommendation.

a. These are outcomes for which the programme had an impact, which are not always the same outcomes the programme was designed to affect.

b. Social benefit-cost ratio: the estimated value of total benefits to society as a whole, per £1 or US\$1 spent. BCRs relate to the original study, time period and context; they may differ if the same intervention is delivered elsewhere.

4.2. Parenting in context

Good quality early years

It is helpful to put parenting programmes into context. They are not a magic bullet that can solve all issues: rather, parenting programmes are just one way in which children's outcomes can be improved. For example, analysis of the Effective Provision of Pre-School Education (EPPE) project found that good quality early years provision (in nurseries for example) had a significant and positive effect on improving outcomes for children from more disadvantaged socio-economic groups.⁶³ Analysis of the study suggests that pre-school can have a significant impact on children's language development with the effect size growing as children spend more time in these settings.

Encouragingly, the Department for Education has committed to increase access to good quality early years provision for two-year olds from the most disadvantaged backgrounds, providing free places for 15 hours per week.⁶⁴ Local authorities can focus on ensuring that the provision is of a very high quality and that take-up is maximised.

Financial resources

Income has a strong positive effect on maternal mental health, quality of parenting and on the quality of the home learning environment. Low income also impacts negatively on direct measures of children's wellbeing and development, including their cognitive and behavioural development.⁶⁵ National and local economic strategies to improve incomes could therefore be part of a suite of interventions to reduce health inequalities and improve parenting. Evidence indicates that a given sum of money has a bigger impact on lower-income than higher income families.⁶⁶ This is a particularly pertinent issue given that in 2011-12, around one-third (34.6%) of households with children were at risk of providing below the minimum acceptable standard of living.⁶⁷ Parenting programmes alone will struggle to have sufficient impact on health inequalities for families that are under stress to make ends meet, and the effects more likely to fade, particularly in households facing persistent poverty.

Improving maternal mental health

Work to improve maternal mental health can also be effective given the negative impact poor parental mental health has on children's outcomes. Areas taking a social determinants approach to health outcomes that are effective in tackling all key policy areas named in the Marmot Review would expect to see an improvement in maternal mental health, through improvements to the conditions in which people work and live, and this would be an effective prevention strategy. Further to this, the use of effective and acceptable screening tools is key so that those who are depressed can be identified and treated with appropriate interventions. There is evidence to support the use of targeted psychosocial interventions (for example, group psycho-education) for women who are depressed or who have symptoms of depression and/or anxiety.⁶⁸

Barlow et al conducted a meta-analysis of parenting programmes that improve maternal mental health which will be useful to those who need to tackle this issue.⁶¹ Tackling maternal mental health is particularly cost-effective. If health visitors identify and treat post-natal depression, this improves productivity and leads to cost savings in the short to medium term.⁶⁹

Alcohol and drug dependency

Work to reduce alcohol dependency and drug addiction may also be required for some people, and again this would not necessarily come under the umbrella of parenting interventions, but would improve parenting and be fundamental for the success of interventions. There is good evidence

showing that the treatment of alcohol/drug use should be tailored to the specific needs of the client but should involve a psychosocial component. Effective treatment options include brief motivational interventions/motivational interviewing, behavioural couples-therapy (where there is a drug-free partner), family therapy, mutual aid (self-help) approaches, including community reinforcement approaches, network therapy (exploration and development of network support). Treatment may be more effective if it includes the provision of rewards and incentives (contingency management). Information leaflets should include material for other family members. Further research is needed to identify the effectiveness of multi-modal, community-based paraprofessional support (similar to the extended Doula model) for teenage mothers in recovery from alcohol or drug dependence. Further research is also needed on family counselling (which has been shown to increase engagement and retention of resistant problem drinkers and drug users) in the ante-natal/post-natal period.⁶¹

Domestic violence also needs to be addressed.

Domestic violence and abuse between parents is the most frequently reported form of trauma for children.⁷⁰ In the UK, 24.8% of those aged 18 to 24 reported that they experienced domestic violence and abuse during their childhood. Domestic violence is prevalent across the socio-economic distribution; however, unemployment and lack of economic resources can exacerbate the impact of domestic violence by making it harder for women to leave a violent partner. Domestic violence is also a cause of economic disadvantage, as it makes it more difficult for women to hold down jobs and to stay in secure housing. For example, in one study, domestic violence was found to be “the single most quoted reason for becoming homeless”.⁷¹

The impact of living in a household where there is a regime of intimidation, control and violence differs according to children’s developmental age. However, whatever their age, it has an impact on their mental, emotional and psychological health and their social and educational development. It also affects their likelihood of experiencing or becoming a perpetrator of domestic violence and abuse as an adult, as well as exposing them directly to physical harm.^{72 73} There is a need to address domestic violence and ensure that those with low levels of resources are not trapped in damaging conditions. A good source for further information is the NICE guidance.⁷⁴

This review has also summarised the literature to provide an indicative picture of what effective local action could look like to improve health inequalities. This is set out in appendix 3.

Fathers

Some of the requirements for interventions described are directed at mothers. From a physiological perspective, mothers have a unique role through pregnancy and breastfeeding. However, for the rest of the outcomes we simply talk about ‘parents’ because the family unit as a whole is important. We have not explicitly looked for interventions just for fathers or mothers alone, but rather evidence on what works overall. Having said this, including fathers at an early stage is important, especially for dual earner households. For example, evidence from a longitudinal study in Bristol (the ALSPAC study) showed that children’s developmental progress was delayed when mothers returned to work before the children were 18 months old, but that this pattern was not evident when the fathers were highly involved in childcare. Evidence from another national longitudinal study has also demonstrated links between parental reports of father’s involvement at the age of seven and lower levels of later police contact as reported by the mothers and teachers.⁷⁵⁻⁷⁷

Similarly, father and adolescent reports of their closeness at age 16 have been correlated with a young person’s adjustment to adulthood.⁷⁸ Nevertheless there is little that is specific to fathers,

or indeed other care givers. While the Department for Education webpage ‘Finding a parenting intervention’ does not have a sub-category for fathers, it does have a category for any parent. For those interested in this area, the Fatherhood Institute has some specific advice to engaging fathers with parenting programmes.⁷⁹

4.3: Improving the home to school transition

Key messages

1. When children start school, a good transition from the home or nursery environment to school is important, particularly for children living in more difficult circumstances, those with special needs, or for whom English is not a first language.
2. Good home to school transition programmes have been linked to better outcomes, particularly for at risk groups, which means that they have a role to play in reducing inequalities in outcomes.
3. Practices to support a child’s start at school like open days, familiarisation lessons and visits are linked with children making a better adjustment to the school environment and having improved social and emotional skills.
4. Support for parents through the transition period can also be helpful in reducing anxiety and social isolation.

Transitions are harder the greater the change, and there is evidence to suggest that gradual changes and familiarisation are helpful. A balance needs to be made here, however, that recognises the ability of the parent to assist this, and the needs of the child, who may already have been in nursery settings. In relation to early years transition, insufficient collaborative working between teachers, parents and schools can exacerbate transition difficulties for children. For example, graduated three week settling-in periods during the school day may be effective for children at risk and convenient for teachers, but they take the majority of holiday time away from households where both parents work, and can be a source of stress for parents whose employers are inflexible about granting leave.

Children who have attended nursery or other early years settings before they start primary school may also experience challenges around curriculum continuity.³⁸ This includes the sudden change to more formal teaching and learning styles, greater emphasis on ‘hard work’, less time for play and fewer opportunities for child-initiated activities. Lack of continuity and transition to more formal learning at this stage was difficult for both children and parents.³⁸

A lack of support and advice available to children, young people and families during the transition process has been identified as contributing to the level of transition difficulties children and young people may experience. For example, differing admissions and transition practices across schools, and parents not understanding admissions processes, were identified as hindering successful transition, because parents were ill-prepared to support their children through the process.³⁸

The following box is a list of good practice taken from a report by the National Foundation for Educational Research (NFER).³⁹

Key messages: good transition practices

Focus on the whole child. For example, ask children about family, likes and dislikes and show an interest in more than knowledge of the alphabet.

Implement a variety of practices (for example, open days, information sessions, one to one support) because the more practices in place the greater the benefit. The use of several practices is particularly beneficial for children who have the greatest risk of a making a poor transition.

Provide targeted support for at-risk groups such as looked-after children and those from disadvantaged backgrounds.

Be flexible and responsive to local needs for example, by being flexible on times, providing appropriate translation services and crèches.

Ensure strong leadership and high-quality delivery. This includes strong leadership from the local authority and full engagement from senior management within schools. Careful recruitment of staff for the curriculum delivery is equally important.

Share information and proactively seek it. for example. record sharing, pre-school and school linking schemes, teachers familiarising themselves with previous curriculums in pre-school, and getting transition information from parents and other services in contact with the child.

Hold induction and orientation meetings for when the child starts school.

Adopt shortened school days at the beginning of the school year with part-time attendance at first.

Continue some of the activities and routines from the EYFS at Key Stage 1.

Ensure good communication between all parties. In general, where communication between all parties was better, the transition programme was more successful.

Source: NFER report³⁹

Given that primary schools are likely to receive children from a range of provision – their own nurseries, child-minders and direct from home – the strength of links between these and schools' capacity to develop links are likely to be variable. Schools will also vary in their capacity to support vulnerable children and families through the transition process. This calls for local strategies to bring 'senders' and 'receivers' together and to ensure adequate levels of support.

Most schools will put in place some of the ideas outlined in the 'Good transitions practices' box above. However, specific schemes have also been devised and tested that build on some of the early years research around the importance of the home learning environment and parenting, for instance. The following box provides an example relating to transition information sessions carried out in the US. These sessions can be provided by parent support advisorsⁱⁱⁱ based in schools.

ⁱⁱⁱ Parent support advisers (PSAs) work in partnership with families, parents, carers and pupils in a school context to: help improve behaviour and attendance; overcome barriers to learning to help parents support their child's learning; and work with parents to increase their involvement in their child's education, both at school and at home. Parent support advisers work either across clusters of schools or in a single school. They come from a wide range of backgrounds including education, health services, social care, as well as parents themselves.

Intervention: transition information sessions

Some positive results from these sessions after a one- and two-year follow-up included the development of a number of workable models that were relevant to local communities that motivated parents around family and parenting issues, and how to keep their child safe, happy and learning. The information sessions engaged parents in dialogue with their local school and with other parents. There was evidence of positive outcomes for a majority of parents in the short term, including: raised confidence about what to expect for their child's time at school, knowing where to go for information, and supporting their child's learning; and early evidence that parents took further action as a result of the sessions, including contacting their school for more information, and keeping in touch with other parents.

However, there were low levels of participation by fathers and male carers and slightly poorer outcomes that were reported by men overall. In addition there were disappointingly low numbers of parents attending many of the sessions, falling considerably below the numbers that might be expected (based on schools' intakes) and inconsistencies in the level of support provided to make the sessions accessible, including crèche, childcare and transport facilities.

The review concluded that the sessions could be effective if provided alongside open days and one-to-one support from school staff, and if they were marketed effectively.

Intervention: Seattle social development project

The Seattle social development project was a school-based early intervention that returned positive results in the cost-benefit analysis. This programme was implemented for two cohorts of students: the first were in their first year of school (age six) and the second were in Grade 5 (age 11).

Evidence and impact: the study found that the programme was significantly more effective when implemented in the first year of school. Research has found that the most effective programmes at this age are those that involve the family as well as the child. In this vein, the Seattle social development project aims to be a school-based intervention that promotes a bond between the child, family and school.

5. Areas for further research

5.1: Studies with long-term follow-up of subjects or analysis of effects on health inequalities

Researchers have not analysed the effects that interventions have on population-level health inequalities. There is in general little work that has followed up the subjects of studies in the longer term, particularly in the UK.

There is some longer term evaluation work from the US, which is useful to indicate the direction of the effect. Shorter term evaluation work is also useful to see positive effects but there is some evidence that the effects fade over time. This can also be termed 'wash-out'. Heckman⁸⁰ and others have pointed to the importance of intervening early but also maintaining a level of support once the intervention has finished.

Increasingly there is a focus on the question of 'what works' for health. However, it is difficult to obtain resources for long term follow up of programme participants that could help understand impact of interventions on health into adult life. Nevertheless, the FNP programme has a well-respected evaluation that has followed participants for 30 years. This evaluation has been instrumental in highlighting the importance of the early years and the ability to shape outcomes. For further learning, investment into the evaluation of the effect of programmes on longer term outcomes in the UK context with information on morbidity and the social determinants of health as outcomes included in the analysis would be of great value.

5.2: The applicability of effect sizes and cost-effectiveness data to local settings in England

Specific cost-effectiveness data is available for some studies but cost-effectiveness is specific to the studies and areas illustrated. Readers should therefore treat cost-effectiveness data with caution especially in considering the wider applicability of findings.

More investment into research that, aligned with long-term evaluations, looks at the cost-effectiveness of interventions, and to where the savings accrue, would be helpful for decision makers.

5.3: The development of universal, lower cost ways to improve parenting

A forthcoming systematic review looking for papers that evaluated parenting interventions with measured health outcomes within Europe found only 29 intervention studies published in peer-reviewed journals in Pubmed and IBSS databases, and six interventions identified in NICE guidelines, in a 13-year period. The review shows that all but two of these interventions are targeted at specific population groups, children with health and developmental conditions at

baseline or families living in deprived areas. The programmes were aimed at providing parents with emotional support and parenting skills or providing them with resources and materials to be active agents in the interventions. They were delivered in families' homes by specialised home visitors or multidisciplinary staff and in clinics by health care professionals.⁸¹

However, if delivery is only focused at the lower end of the income distribution then improvement across the gradient may be missed. Askew⁸² recognises that intensive home visiting programmes are expensive and the reach can be limited. Askew, and the Institute of Health Equity, advocate for progressive universalism, with all families receiving some support with more intensive supports for those most at risk.

Conclusion

With only 52% of children reaching a good level of development at age five, and 40% of children with insecure attachment, there is considerable scope for more intensive action to support children and families across infancy, childhood and adolescence.

This review has set out the importance of early intervention and provides evidence on the contribution that good parenting and transition to school can have on improving outcomes. The review gives examples of the types and range of possible programmes that support good parenting. There are many parenting programmes that have been evaluated, and examples of what can be delivered at different stages of the child's development, are designed to work with parents, teachers and the children and where evaluation has indicated that they have merit for a number of specified good developmental outcomes for the child.

Good parenting programmes cannot be seen in isolation and action should consider the wider conditions in which parents and carers are living. Good mental health, freedom from domestic violence, services that reduce alcohol dependency and drug addiction all contribute to parents being able to engage with and support their children. It also means that they can participate in any locally provided specific parenting programmes. Additionally access to sufficient financial resources and good universal child health services are a core part of being able to support all children to achieve their potential.

While the majority of children make a successful transition into nursery and school, those with poor socio-emotional skills, poor self-esteem or low self-confidence may be particularly vulnerable to transition. Children who are youngest in year may also experience difficulties as may children where English is not their first language.

There are practical steps that can be taken to reduce difficulties at transition. Combining a number of different practices together can be particularly beneficial to children in 'at risk groups' in aiding a successful transition, such as open days, one to one support and induction and orientation meetings.

Support can be provided for parents who may also find transition difficult. Parent support advisers in schools can assist with improving parent motivation, improved parent school-relationships and can be combined with other parent engagement approaches such as open days and one to one support.

Appendix 1: sources of additional information

Key literature: sources of help and information

The Department for Education's online tool for choosing parenting interventions, developed by the National Academy for Parenting Research, is particularly helpful for those looking to commission a programme. Commissioners can filter by the type of outcome they need to influence and the strength of evidence.

www.education.gov.uk/commissioning-toolkit/Programme/Index

Investing in Children, produced by the Social Research Unit at Dartington, is another tool that does a similar job: <http://investinginchildren.eu/>

This also has filters so that you can search for interventions that impact on an outcome of interest. This site tends to have more information on cost-effectiveness.

The Early Intervention Foundation has a helpful area about making the case for intervention, a useful website and they also provide guidance to local areas.

www.earlyinterventionfoundation.org.uk/

The Greater London Authority (GLA) has set out the economic case for early years interventions to reduce health inequalities in London, very much focused on American evidence, although the cost-effectiveness data has been adjusted to be more relevant to the London situation.

www.london.gov.uk/priorities/young-people/early-years-and-family-support

Graham Allen MP's two reports to Government include information about scaling up and those interventions that are successful.

<http://grahamallenmp.co.uk/static/pdf/early-intervention-7th.pdf>

Appendix 2: outcomes that should be improved to improve children’s life chances

Areas for focus	Proposed outcomes	
Children are developing well	Cognitive development	<p>All children developing age appropriate skills in drawing and copying</p> <p>Children increase the level to which they pay attention during activities and to the people around them</p>
	Communication and language development	<p>Children are developing age appropriate comprehension of spoken and written language</p> <p>Children are building age appropriate use of spoken and written language</p>
	Social and emotional development	<p>Children are interacting appropriately with other children and with adults</p> <p>Children increase their engagement with various forms of play</p> <p>Children have age appropriate self-management and self-control</p>
	Physical development	<p>Reduction in the numbers of children with low birth weight</p> <p>Reduction in the number of children with high or low Body Mass Index</p> <p>All children developing gross and fine motor skills</p>
Parenting promotes development	Creating safe and healthy environment	<p>Reduction in the numbers of mothers who smoke during pregnancy</p> <p>Increase in the number of mothers who breastfeed</p>
	Promoting active learning	<p>Increased number and frequency of parents regularly talking to their child using a wide range of words and sentence structures</p> <p>More parents are reading to their child every day</p> <p>More parents are playing with their child – and encouraging their child to explore</p>
	Positive parenting	<p>More parents are regularly engaging positively with their children, including with eye contact and body language</p> <p>More parents are actively listening to their children</p> <p>More parents are setting and reinforcing boundaries, rewarding good behaviour and ignoring poor behaviour</p>

Areas for focus		Proposed outcomes
Parent context enables good parenting	Good mental wellbeing	<p>More parents are experiencing lower levels of stress in their home and their lives</p> <p>Increase in the number of parents with good mental wellbeing (particularly reduced levels of maternal depression pre and post-natally)</p> <p>More parents have greater levels of support from friends and/or family</p>
	Knowledge and skills	<p>More parents are improving their basic skills, particularly literacy and numeracy</p> <p>More parents are increasing their knowledge and application of good parenting</p>
	Be financially self-supporting	<p>Parents are accessing good work or developing the skills needed for employment, particularly those furthest away from the labour market</p>

Source:6

Appendix 3: a proposed local system to improve parenting

1. A strategy that addresses the context in which parents work and live to raise living standards, improve mental health and reduce parental stress through action on poor quality housing, income, debt, skills and education. (Following from the Marmot Review and 'An equal start' recommendations.)
2. Effective universal programmes that are tailored proportionately to need, are offered ante-natally and at birth, that improve sensitivity to infants and rates of breastfeeding, and that reduce smoking, alcohol and drug abuse and conflict in the home.
3. Promotional interviewing that identifies higher needs through pregnancy and the post-natal period. (Note: this is now recommended in the healthy child programme.)
4. Identification of women at risk of post-natal depression through a universal health visiting service. Programmes to prevent post-natal depression in high risk groups and targeted intervention in mothers with established depression.
5. Effective parenting programmes to improve the outcomes listed in the key messages box, the choice of which should be informed by an assessment of need.
6. Good quality affordable early years provision and action on the 21 outcomes identified in 'An equal start', through children's centres and nurseries.
7. Use of programmes for older children that address resilience^{iv}, health and lifestyle behaviours, through parents or schools, the choice of which should be informed by an assessment of need.
8. Consideration and evaluation of cheap options such as the use of online tools such as <http://familylives.org.uk/>

^{iv} IHE has written a separate review on building resilience in school-aged children.

Appendix 4: a summary of other effective parenting programmes based on rapid review of the literature

Intervention	Summary of effects
<p>Empowering Parents, Empowering Communities</p> <p>A peer-led parenting intervention delivered in socially disadvantaged families. It is an eight-week, two-hours per week programme delivered in a group setting by trained peer facilitators.</p>	<p>In a randomised control trial of children aged 0-11 the service model was deemed effective – the intervention significantly reduced child behaviour problems and improved parenting competencies. It also showed good levels of retention in the study, however longer-term follow-up is required.^{83 84} Utilising the Eyberg child behaviour inventory, EPEC showed an intervention effect size of 0.38 (95% confidence interval 0.01 to 0.75, P=0.01).</p>
<p>Family Check-Up (FCU)</p> <p>FCU has a public health focus, and aims to improve parents’ positive behaviour support and children’s school readiness competencies in early childhood.</p>	<p>FCU had previously been shown to reduce drug use in children from age 11 through school, reduce arrests, antisocial behaviour. Three year assessments began at age two, and findings suggest that a brief preventative intervention supporting positive parenting practices can indirectly foster key facets of school readiness in children at risk.⁸⁵</p>
<p>Getting Ready</p> <p>This intervention was designed to provide an integrated approach to promoting children’s school readiness within existing early childhood programmes.</p>	<p>A randomised trial over two academic years tracked disadvantaged pre-school children in the US. Teacher reports of language use, reading and writing skills were significantly better in the treatment group two years later.⁸⁶</p>
<p>Parent Management Training, Oregon Model (PMTO)</p> <p>This is for parents of children in pre-school or primary school with concerns about their child’s behaviour and/or emotions. Parents attend 19 or more weekly individual or group sessions where they learn strategies for interacting positively with their child and discouraging unwanted behaviour.</p>	<p>A strong evidence base suggests that PMTO results in improved child behaviour, improved parenting practices/competency, reduced parent stress/depression/mental health problems</p>
<p>Smoking cessation programmes</p>	<p>Found by Barlow et al, to be an effective way to increase birth weights.⁶¹</p>

Intervention	Summary of effects
<p>Multisystemic Therapy (MST) and Multisystemic Therapy for Child Abuse and Neglect (MST-CAN)</p> <p>MST therapists provide the young person and their parents with individual and family therapy over a four to six month period with the aim of doing ‘whatever it takes’ to improve the family’s functioning and the young person’s behaviour. MST is for families with a young person between the ages of 12 and 17 with serious behavioural problems and at risk of going into care. For the child abuse and neglect variant, it is for families with a recent report of physical abuse or neglect (within the previous 180 days) against a child aged six to 17.</p>	<p>MST has strong evidence of improving family functioning and reducing youth offending and out-of-home placements. For the child abuse and neglect variant, there is evidence of improved child general wellbeing/mental health, reduced child maltreatment (actual or risk), improved parenting practices/competency, improved parent wellbeing, and improved parent life circumstances (employment, education).</p>
<p>Bright Bodies</p> <p>The Yale Bright Bodies Weight Management Program (in the US) is a family-based, intensive lifestyle intervention that uses nutrition education, behaviour modification and exercise to address weight and weight-related issues in children and adolescents. The programme is designed for ethnically diverse, obese, inner-city youth. Participants and caregivers are provided with nutrition education and behaviour modification techniques in 40-minute sessions, once per week, for six months, followed by every other week for the next six months. The exercise component, facilitated by exercise physiologists, is provided in two 50-minute sessions once per week for the first six months and two 50-minute sessions twice per month for the next six months.</p>	<p>Participants in the Bright Bodies program experienced: minimal weight gain over 12 months despite increases in height, resulting in a reduction in BMI, a 4% reduction in body fat; and reductions in total cholesterol and insulin sensitivity at 12 months, maintenance of the improvements for one year after the intervention (two year study). A sub-sample of participants was also measured on glucose and insulin sensitivity and participants in the treatment group experienced the following outcomes after 12 months: a 53% reduction in insulin levels; a 42% increase in whole body insulin sensitivity index; a small, but statistically significant, decrease in glucose levels; a significant conversion from pre-diabetes to normal glucose for intervention and conversion from normal to pre-diabetes in the control group.</p>

Intervention	Summary of effects
<p>Triple P</p> <p>The Triple P – Positive Parenting Program is a parenting and family support system designed to prevent – as well as treat – behavioural and emotional problems in children and teenagers. It aims to prevent problems in the family, school and community before they arise and to create family environments that encourage children to realise their potential.</p> <p>Triple P draws on social learning, cognitive behavioural and developmental theory as well as research into risk factors associated with the development of social and behavioural problems in children. It aims to equip parents with the skills and confidence they need to be self-sufficient and to be able to manage family issues without ongoing support.</p>	<p>Triple P is effective in reducing conduct disorder and can be applied universally. Lifestyle Triple P has shown positive effects on BMI in children who are overweight. Two large trials of Triple P offered at all levels^{6 7} are among the few studies to have demonstrated impact of a universal and targeted approach combined; the first¹ is one of a small number of studies to have shown any effect on abusive parenting. Other studies of universal programmes have struggled to show impact, possibly because of the problems of applying randomised controlled trials in such settings.</p>
<p>HENRY</p> <p>HENRY (Health Exercise Nutrition for the Really Young) aims to encourage healthier eating in children at a young age.</p>	<p>The strongest effect has been on the practitioners who deliver it, their own lifestyles and their confidence in delivering the programme. Families are however also reported to have made significant improvements in healthy eating, with fewer cakes and biscuits and more fruit and vegetables for example. A good independent evaluation would be helpful to see if there is any impact on obesity levels, CVD or diabetes.</p>

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