

WHY BABIES' FIRST RELATIONSHIPS MATTER

The value of parent-infant relationships
in the UK

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EXECUTIVE SUMMARY

This study focuses on the economic and social benefits of specialised parent-infant relationship teams. Parent-infant teams are specialised services that provide intensive, relationship-focused support for parents and babies, helping babies be safer, happier and healthier.¹ The teams typically combine clinical expertise in infant mental health with multi-disciplinary approaches, offering assessment and interventions for families experiencing difficulties in early bonding, attachment and connection. Delivery models vary by locality but commonly include specialised therapeutic work and pathways for families with complex needs, as well as consultation, training and workforce development support to wider services.

Evidence indicates that early attachment difficulties are associated with later developmental, social, and economic costs (Centre on the Developing Child, 2016; NSPCC, 2023). National policy frameworks, including the Healthy Babies offer and the Healthy Child Programme, emphasise the importance of early relationships between parents/carers and babies, particularly in the first 1001 days.

Against this backdrop, this study examines the current evidence base on the contribution of specialised parent-infant relationship teams to improved family outcomes as well as the broader system-level impacts. This report assembles evidence on the costs and consequences of parent-infant teams and uses modelling to estimate their potential social return on investment, based on case study vignettes.

The key messages from this study include:

- The first two years shape emotional, social and thinking skills. Secure parent and baby bonds build resilience, whereas insecure attachment raises future mental health risks
- Parent-infant teams deliver help proven to strengthen bonding, reduce parental anxiety and depression, and improve babies' development and attachment quality
- Up to 45% of UK babies may have insecure or disorganised attachment, with higher rates where families face poverty, trauma or poor mental health
- There are 51 specialised parent-infant relationship teams in the UK, meeting between 1.5 to 6% of need, depending on which study is referenced, leaving thousands of families without local life changing support
- The existing evidence base on economic impact is currently underdeveloped, however several existing studies use modelling or scenarios to illustrate the economic and social value. The main limitations of the current evidence base relate to both the 'bundling' of outcomes (putting multiple outcome domains, such as school readiness and mental health improvements into composite measures) and the long-term attribution of impact

¹ Specialised parent-infant relationship teams are also known by other names in different parts of the UK. The Parent-Infant Foundation website has a [definition](#) of specialised parent-infant relationship teams and a [map](#) of parent-infant teams across the UK.

- ◎ The findings from this study indicate a robust and prudent estimated social return on investment (SROI) of £6.08 and £10.30 for every £1 invested, for specialised parent-infant relationship teams in common and severe cases respectively, which is comparable to previous SROI analyses of individual projects referenced in the full report. For the longer term impacts, we have conducted a cost-consequence analysis and, as part of this, we have included hypothetical analysis of the value to each child across their whole lifetime, which produces an illustrative figure of over £40,000 per child. Expanding the provision of parent-infant teams to support 28,800 families each year could therefore create a £1.15 billion cost saving opportunity per year, realised over the lifetime of those seen.

To improve the mental health and wellbeing of families, UK policymakers should adopt measures that strengthen and expand parent-infant relationship teams and improve service commissioning and planning. Drawing on the evidence and analysis presented in this report, together with Centre for Mental Health's broader knowledge and experience, we recommend the following actions:

- ◎ A national commitment to scaling specialised parent-infant relationship teams, with a clear target for reaching a defined proportion of babies by an agreed date
- ◎ Adopt a strategic, co-ordinated approach to developing the specialised workforce required to deliver specialised parent-infant relationship teams at scale (Strategic workforce development)
- ◎ Develop a Modern Service Framework for children and young people's mental health as part of the implementation of the 10 Year Health Plan with clear expectations around the provision of mental health support for under-5s and their families
- ◎ ICBs in England, and the equivalent commissioning bodies in the devolved nations, to embed the inclusion of specialised parent-infant relationship teams in commissioning as core element of population health and early intervention
- ◎ Strengthened local assessment and accountability of local authorities in England, to assess existing parent-infant relationship provision through their Joint Strategic Needs Assessments (JSNAs)
- ◎ Development of a national outcome framework or national core dataset, enabling consistent measurement of outputs and outcomes across specialised parent-infant relationship teams, which would facilitate comparative learning.

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1 INTRODUCTION

Specialised parent-infant relationship teams have emerged over the past decade as a vital component of perinatal and infant mental health provision across the UK. These multi-disciplinary teams bring together clinical psychologists, child psychotherapists, parent-infant psychotherapists, family therapists, trainee and assistant therapists, infant mental health practitioners, specialised midwives, specialised health visitors, social workers and others to deliver direct therapeutic interventions, to support early identification and assessment, and to deliver workforce development through consultation, supervision and training. The growth in the number of teams across the UK reflects an increasing recognition that strengthening the earliest relational bonds between parents and babies not only improves health and developmental outcomes but also yields wider social and economic benefits (Parent-Infant Foundation, 2021).

Despite strong evidence of clinical effectiveness on the wellbeing, and healthy development of babies, the economic value of parent-infant teams remains under examined, with a lack of robust data on return on investment, system efficiencies and how future costs can be avoided. Better economic evidence would support the case to secure sustained funding or advocate for equitable service expansion across the regions of the UK.

This report aims to address that gap by assembling what currently exists within the UK-based evidence on the costs and consequences of parent-infant teams and uses modelling to estimate their potential social return on investment, based on case study vignettes.

1.1. THE AIM OF THIS STUDY

The primary aim of this study is to document the existing evidence base on the economic value of specialised parent-infant relationship teams and contribute to establishing an economic case for specialised parent-infant relationship teams. This document includes an evidence review, a social return on investment (SROI) and a cost-consequence analysis, along with six illustrative case study vignettes. This study also presents prevalence estimates of relational risk, based on the evidence base, summarises some of the individual and system impacts of insecure attachment, and details the economic costs and benefits of early intervention.

By examining potential cost savings, avoided statutory expenditure and longer term productivity gains, we aim to strengthen the emerging evidence base on the economic value of parent-infant teams and contribute to the case for sustained and increased investment in these services. This study aims to inform decision making, and support equitable access to high quality relational services for families across England, Scotland, Wales and Northern Ireland.

1.2 LANGUAGE AND TERMINOLOGY

Clarity in language is essential when discussing parent-infant relationships, interventions, and outcomes. Throughout the report, it is important to ensure that terminology reflects both the clinical realities of practice and the lived experiences of babies and families. A key consideration in this is the voice of the baby. Babies cannot verbally report their experiences, yet their emotional states, such as distress, fear, withdrawal, or pleasure, are observable and central to understanding the effectiveness of interventions. There is a risk that this voice could be overshadowed by theoretical frameworks, measures, or long-term outcomes in a technical report. To mitigate, case studies are included at appendix two.

In addition, language should also recognise that specialised parent-infant relationship teams have different local names, reflecting commissioning or organisational variations. These include parent-infant teams, infant mental health teams, parent-infant mental health teams, PAIRS (parent and infant relationship services) and early attachment services. For clarity and consistency, this report uses the term 'specialised parent-infant relationship teams' with the shorthand as 'parent-infant teams' used thereafter.

The '[Who is holding the baby?](#)' report provides an up-to-date picture of specialised parent-infant relationship teams across the UK and is a useful source of further information.

A glossary is provided at appendix five with definitions of terms that have been used in this report.



2 METHODOLOGY

This study used a mixed-methods approach, combining an evidence review, qualitative interviews with a sample of seven parent-infant teams, a social return on investment analysis and a cost-consequence analysis, along with illustrative case study vignettes to examine the social, economic and system-level costs associated with insecure attachment and specialised parent-infant relationship teams.

A mixed-methods design was selected because the study needed to capture both the existing evidence of economic impact associated with parent-infant relationship teams and the contextual and practice-based factors that cannot be understood through quantitative data alone. Qualitative data, drawn from the interviews, enabled a deeper understanding of how teams operate, how practitioners use assessment and data collection tools, and how teams capture families' experiences of support. Integrating these strands strengthens the validity of the findings by allowing the study to triangulate evidence and generate insights that are both robust and grounded in practice.

The evidence review, at [appendix one](#), involved systematic searches for peer-reviewed studies published between 2000 and 2025, supplemented by grey literature including national and local evaluations, commissioning proposals and government reports. We applied inclusion criteria to ensure the research we reviewed was explicitly relevant to economic, social or system impacts and the purpose of this study.

Concurrently, we conducted semi-structured qualitative interviews with seven specialised parent-infant relationship teams across England, Wales, Northern Ireland and Scotland. Teams were purposively sampled to reflect geographic variation, including urban and rural settings, different organisational structures, including NHS trusts and the voluntary sector, and to include both smaller and larger staffing models. Interviews explored core functions, average caseloads, the balance of direct and indirect activities (training, consultation, supervision) and local funding mechanisms, as well as the assessment and measurement tools currently in use. Interviews were analysed thematically to identify key differences in the delivery between teams and the benefits and impacts that teams observed.

To illustrate potential returns on investment, we developed six case study vignettes representing typical journeys of babies and parents, at [appendix two](#). Personas were synthesised from aggregated staff interview insights and outcome data was used to demonstrate the impact of the specialised approach and interventions of parent-infant teams. These composite case studies, based on a range of typical families, are useful illustrations of potential trajectories, highlighting how early relational support can influence both immediate outcomes and longer term impacts on the safety, wellbeing, and healthy development of babies. Each vignette is framed to reflect common pathways and interventions, with evidence of typical outcomes, enabling stakeholders to visualise the cumulative impact. Two of the case studies were used to generate a Social Return on Investment (SROI) analysis, at [chapter 8.1](#).

A cost-consequence analysis (CCA) has been used to present the range of potential costs and consequences (benefit or impacts) associated with parent-infant teams, allowing stakeholders to compare resource use with the likely outcomes without attempting to reduce complex relational work to a single monetary figure. A CCA has been used to set out the anticipated impacts in a disaggregated format, capturing financial consequences of early relational interventions. This provides a structured way to consider the broader, long-term, economic implications, and offers a transparent view of where potential economic value may be realised across the system in future.

2.1 LIMITATIONS TO THE STUDY

Despite the comprehensive design of this study, several limitations should be acknowledged. The limitations include:

- ◎ The evidence review's focus on UK-based evidence may have excluded relevant international studies
- ◎ Insights from seven interviews cannot capture the full diversity of commissioning and delivery contexts and may not generalise to rural, under resourced or devolved settings beyond those sampled
- ◎ Cost-consequence assumptions inevitably simplify complex real world variations and may not hold across all local authorities or health systems
- ◎ Attributing reductions in statutory service use solely to parent-infant relationship interventions are inherently challenging, as multiple factors influence service use over time
- ◎ Many studies bundle multiple outcome domains, such as school readiness, educational attainment, mental health improvements and behavioural change, into composite measures, rather than disaggregating impacts by outcome type. This bundling obscures the specific contribution of parent-infant teams to individual domains and complicates precise attribution of economic benefits
- ◎ Similarly, many existing studies that look at the value and costs related to insecure attachment do not delineate the savings into fiscal savings, economic returns, social gains or system efficiencies and different reports place different emphasis on the types of value achieved. This, in turn, means that it is not possible to segregate the cost-consequences into these four domains, although we have provided commentary where possible
- ◎ This study was unable to capture data on the impact of workforce development and support, good and early referrals and the later impact on service delivery requirements. This is a gap in both the published evidence and in the current data collection methods within the teams involved in the study
- ◎ An additional consideration is the wide variation in interventions delivered by parent-infant teams, with models differing in intensity, duration, and therapeutic approach. For this reason, our analysis presents indicative costs and consequences rather than definitive causal effects. The CCA highlights potential economic impacts, but it should be interpreted cautiously, as actual outcomes are shaped by local context, delivery differences, and how services interact. Clear reporting of these limitations is essential to avoid overstating the economic value attributable to parent-infant interventions.

- ◎ **Parent-Infant Relationship Global Assessment Scale (PIR-GAS)** scores and other measures are used in this report to provide a structured lens on parent-infant relationships, but it is important to note that attachment is only one dimension of the broader parent-infant relationship and, while it has strong empirical foundations, including long-term longitudinal research and clear operational definitions, its clinical use is more limited. Consequently, findings framed through attachment should be interpreted as indicative of relational patterns at the population level, rather than as precise clinical diagnoses or a complete representation of parent-infant functioning.
- ◎ Finally, the case study vignettes are not statistically representative and should be interpreted as illustrative, or typical, examples.



3 THE EVIDENCE ON IMPACTS OF INSECURE ATTACHMENT

Early parent-infant relationships formed from conception to the child's second birthday are foundational for physiological, social and emotional development and underpin later mental health, behaviours and economic participation. Evidence shows that sensitive, responsive caregiving supports effective stress regulation, emotional resilience and adaptive coping, whereas insecure attachment is associated with emotional dysregulation, poor coping strategies and an elevated risk of persistent mental and physical health problems. These domains interact across the life course so that parental or child mental health conditions, poor educational outcomes and reduced workforce participation commonly co-occur and can amplify long-term societal costs (Dozier *et al.*, 2014; Price & Ellis, 2020; Steele *et al.*, 2019; O'Rourke P. (2011)).

The diagram below, taken from the Parent-Infant Relationships (PAIR) Services Commissioning Toolkit (PIF, 2023) shows the diverse range of multiple outcomes potentially achieved by parent-infant teams, for parents, children and families in the short, medium and long term.

Diagram 1: Parent-infant relationships services commissioning toolkit outcomes



The broad array of outcomes shown to be supported by the quality of parent-infant relationships.

The evidence review, included at [appendix one](#) and summarised briefly below, synthesises longitudinal studies, systematic reviews and UK-based economic analyses to examine associations between insecure attachment and short, medium and long-term outcomes, and to summarise related health, social and economic costs in the UK. Priority is given to UK evidence and recent national reports, where available. Findings are drawn from longitudinal cohorts, high quality reviews and published economic valuations. Where the evidence base is limited, this is noted and interpreted cautiously.

The evidence review focuses on economic value, social outcomes, and system-level implications. It highlights the critical role of secure early attachment in shaping lifelong mental, physical, and social wellbeing, and contrasts this with the extensive costs and consequences of insecure attachment.

The key findings from the evidence review are summarised below.

The importance of early attachment

Secure parent-infant relationships underpin emotional regulation, resilience, and healthy development. Insecure or disorganised attachment is strongly associated with mental health difficulties, physiological dysregulation, and behavioural problems. These patterns increase vulnerability to anxiety, depression, personality disorders, eating disorders, and chronic physical conditions such as cardiovascular disease and obesity.

Mental health and economic burden

Insecure attachment significantly elevates the risk of anxiety and depression across the life course. Childhood mental health difficulties impose annual societal costs of up to £4,040 per child for anxiety and £1,960 for clinical depression, with lifetime costs exceeding £1 trillion for the current generation. Mental ill health costs England approximately £300 billion annually, including £45 billion borne by employers. Perinatal mental health difficulties alone cost £8.1 billion per birth cohort, with persistent inequalities in access and outcomes.

Broader health impacts

Attachment insecurity contributes to poorer health behaviours, including smoking, hazardous alcohol use, poor diet, and physical inactivity. These behaviours, combined with stress-related physiological changes, increase long-term risks for cardiometabolic and autoimmune conditions. The economic burden of obesity alone is estimated at £126 billion annually, while smoking costs £43.7 billion and harmful alcohol use £27 billion.

Developmental and educational outcomes

Early attachment influences cognitive, language, and socio-emotional development, shaping school readiness and academic attainment. Insecure attachment is linked to delays in developmental milestones, speech and language difficulties, and behavioural problems, all of which increase demand for specialised services and reduce lifetime earnings. High quality early interventions demonstrate benefit-cost ratios of 3:1 to 7:1, with programmes such as Sure Start generating £2.05 in benefits for every £1 invested.

Social and intergenerational impacts

Relational difficulties rooted in insecure attachment affect family stability, social networks, and community participation. These patterns perpetuate cycles of disadvantage, increasing reliance on welfare, housing support, and child protection services. The annual fiscal cost of family breakdown in the UK is estimated at £51 billion. Intergenerational transmission of insecure attachment compounds these challenges, reinforcing the case for early intervention.

Child protection, housing, and justice

Children with insecure attachment are disproportionately represented in child protection systems, care placements, and youth justice cohorts. Residential care costs have risen to £318,400 per child annually, contributing to a £3.1 billion national expenditure. Youth reoffending costs around £1.5 billion per year, with lifetime costs for persistent offenders exceeding £2.3 million. Housing instability among care-experienced young people adds further pressure, with local authorities spending over £3 billion on homelessness services in 2023-24.

Workforce and system-level benefits

Parent-infant teams deliver significant system-wide benefits through training, consultation, and reflective supervision. These activities enhance practitioner confidence, improve service quality, and reduce escalation to high-cost interventions. Evidence suggests early relational support can reduce care entries by up to 30% and Child and Adolescent Mental Health Services (CAMHS) referrals by 25%, generating substantial cost avoidance. Workforce retention benefits are also notable, with reflective supervision reducing turnover costs of £12,000 to £15,000 per employee.

Overall implications

The evidence demonstrates that insecure attachment imposes profound and enduring costs across health, education, social care, and the economy, while secure early relationships deliver lifelong benefits. Targeted parent-infant interventions offer strong returns on investment, improving outcomes for children and families, reducing demand on statutory services, and strengthening workforce capacity. Under investment in early relational support represents a missed economic opportunity, reinforcing the case for prioritising parent-infant teams within national and local strategies.

3.1 THE VALUE GENERATED BY PARENT-INFANT TEAMS

Parent-infant relationship teams can potentially generate value across four interrelated domains, including:

- ◎ Fiscal savings arising through reduced demand on health, social care and justice services
- ◎ System efficiencies coming from improved inter-agency coordination, reduced duplication and reduced system pressures such as waiting lists
- ◎ Economic returns accruing via greater parental workforce participation, higher lifetime earnings and increased tax revenues
- ◎ Social gains including improved family wellbeing, strengthened caregiving relationships and greater community cohesion and wellbeing.

Focusing on a single outcome area understates the full value of early relational support, since gains in one area, often lead to improvements in other areas and across multiple domains. For example, a reduction in paediatric healthcare appointments not only lowers immediate NHS costs but can also free up parental time, enabling greater labour market participation. Enhanced parental employment, in turn, increases household income, which correlates with improved school readiness and educational attainment for children. At a community level, stronger parent-infant bonds foster social networks and collective wellbeing, reinforcing social cohesion and reducing demand on statutory services in the longer term (Bachmann *et al.*, 2019; Knapp *et al.*, 2011).

Existing economic modelling and evaluations often bundle these outcomes, aggregating fiscal savings, system efficiencies, economic returns and social impacts. The benefits of parent-infant teams span direct cost savings across health, social care and education budgets, avoids downstream expenditures such as child protection interventions and youth justice involvement, delivers productivity gains through increased parental employment and higher lifetime earnings for better educated children, and reflects enhanced community resilience and social capital (Bachmann *et al.*, 2019; Knapp *et al.*, 2011).

3.2 ATTRIBUTION OF OUTCOMES

It is important to note that not all poor outcomes in later childhood or adulthood are attributable to insecure attachment. Mental health difficulties, behavioural challenges, and difficulties with emotional regulation arise from multiple causes and show considerable individual variation. Nonetheless, insecure attachment is recognised as a major risk factor for such outcomes, alongside poverty and other Adverse Childhood Experiences (ACEs). Several studies emphasise that insecure attachment often amplifies other risks, such as stress and ACEs, rather than acting in isolation. Evidence indicates that the earlier and more pervasive these difficulties are, such as in cases of significantly disorganised attachments, the greater the likelihood of adverse outcomes manifesting later in life.

It is important to emphasise that this does not imply that every adult experiencing mental health difficulties, behavioural problems, or challenges in emotional regulation is a consequence of parental behaviour. Rather, insecure attachment increases the risk, interacting with other social, environmental, and individual factors.



4 THE PREVALENCE OF INSECURE ATTACHMENT IN THE UK

This chapter summarises available estimates of the prevalence of insecure attachment among infants in the UK. Insecure attachment occurs when a child's early relationships with parents and carers are inconsistent, unresponsive, or frightening. Children with insecure attachment may struggle to rely on parents and carers for comfort and support, leading to difficulties in emotional regulation, trust, and forming stable relationships. Insecure attachment is typically divided into subtypes, reflecting different patterns of coping and relational behaviour.

Anxiously attached children often experience inconsistent caregiving, where a parent or carer is sometimes responsive and other times unavailable or neglectful. As a result, these children may become overly clingy, seeking reassurance and fearing abandonment. In adulthood, this can manifest as heightened emotional sensitivity, dependency in relationships, and worry about partner availability or rejection.

Avoidantly attached children usually experience parents or carers who are consistently emotionally distant or unresponsive. To manage their needs, children learn to suppress or hide distress, appearing independent and self-reliant. In adulthood, avoidant attachment may be expressed as discomfort with closeness, reluctance to rely on others, or emotional distancing in relationships.

Disorganised attachment emerges when parents or carers are simultaneously a source of comfort and fear, often due to abuse, neglect, or unresolved trauma. Children display conflicting behaviours, such as approaching the parents or carer while showing fear or freezing when distressed. This pattern can lead to difficulties in regulating emotions, forming coherent relationships, and managing stress, and is associated with higher risk of mental health problems in later life.

4.1 PREDICTED PREVALENCE RATE: GENERAL POPULATION ESTIMATES

Drawing on UK government reports, national statistics, UK-based research, and international meta-analyses of Western populations, the general prevalence of parent-infant attachment patterns is outlined below.

Predicted incidence rates for attachment patterns can be reliably measured by a child's first birthday (Bateson *et al.*, 2022; Benoit, 2004; Van IJzendoorn *et al.*, 1999) and typically remain stable during childhood unless there is a substantial change in caregiving or intervention.

The Parent-Infant Foundation estimates the prevalence of secure, insecure, and disorganised attachment patterns in the general population as follows (Parent-Infant Foundation, 2023):

- ◎ **Secure attachment:** approximately 55 to 60% of all new births
- ◎ **Insecure attachment** (excluding disorganised): approximately 25 to 30% of all new births
- ◎ **Disorganised attachment:** around 15% of all new births, with higher rates in contexts of trauma or adversity.

Recent UK guidance similarly indicates that about half of infants develop secure attachments with their primary caregivers, while a substantial minority exhibit insecure patterns (NHS, 2018; NSPCC, 2015). International research suggests comparable baseline incidence rates for parent-infant attachment patterns in affluent Western countries (Bateson *et al.*, 2022; Van IJzendoorn *et al.*, 1999).

Taken together, the total prevalence of all forms of insecure attachment is estimated at 40 to 45% of all new births.

Estimated annual number of infants with insecure attachment

Based on an estimated prevalence of 25% to 30% of live births, and using the UK's 2024 live birth figure of approximately 594,677 (ONS, 2023; NRS, 2024; NISRA, 2023), the annual number of infants with insecure attachment, excluding disorganised, is predicted as follows:

- ◎ At 25%, around 148,700 infants may develop insecure attachment.
- ◎ At 30%, this rises to 178,400 infants who may develop insecure attachment.

In addition, approximately 89,200 infants (15%) may develop disorganised attachment annually. Taken together, this suggests that around 237,900 to 267,600 infants in the UK each year may experience insecure or disorganised attachment patterns.

Disorganised attachment is of particular concern, as it is strongly linked to poorer developmental outcomes, including compromised mental health, social behaviour, and educational prospects (Parent-Infant Foundation, 2023).

Rates are substantially higher in populations exposed to adversity. In areas with above average levels of trauma, adversity, or socio-economic disadvantage, the incidence of both insecure and disorganised attachment is expected to exceed these national averages. Recognising these variations is essential for identifying high risk populations.

4.2 THE PREVALENCE IN HIGH RISK POPULATIONS

Rates of insecure and disorganised attachment rise sharply among infants exposed to early adversity, trauma or socio-economic disadvantage. Among fostered or care-experienced children, insecure attachment rates can reach 80 to 90%, with disorganised attachment present in over 60% of cases (van IJzendoorn, Schuengel & Bakermans-Kranenburg, 1999; Carlson *et al.*, 1989; Dozier, Stovall-McClough & Albus, 2001). Socio-economic disadvantage and parental stressors, including mental health problems, substance misuse and domestic violence, further elevate the risk of insecure attachment (Fearon & Belsky, 2011).

Observed prevalence in specific high risk sub-groups includes:

- ◎ **Children in care:** up to 80% with disorganised attachment (NICE, 2015; Bateson *et al.*, 2022)
- ◎ **Children experiencing abuse or neglect:** around 80% insecure attachment (Benoit, 2004)
- ◎ **Children of mothers experiencing domestic violence:** 57% disorganised attachment (van IJzendoorn, Schuengel & Bakermans-Kranenburg, 1999; Bateson *et al.*, 2022)
- ◎ **Children of mothers using drugs or alcohol:** 43% disorganised attachment (Bateson *et al.*, 2022)
- ◎ **Children of mothers with depression:** 21% disorganised attachment (Bateson *et al.*, 2022).

Recent UK research highlights the prevalence of attachment difficulties among children who have experienced disrupted care. Studies of fostered or adopted children indicate that nearly half (49%) meet criteria for disinhibited attachment disorder, compared with 4% to 6% in low-risk or clinically referred groups, with stable caregiving and targeted interventions improving attachment security over time (Kay, Green & Sharma, 2016; Green *et al.*, 2023).

These findings demonstrate that while disorganized attachment is relatively uncommon in the general population, it is highly prevalent among infants exposed to severe adversity. Areas with higher concentrations of poverty, are children in care, and children who have experienced adversity can be expected to display elevated rates of insecure and disorganized attachments.

4.3 SUMMARY OF PREVALENCE ESTIMATES

Population prevalence estimates can be taken as baseline markers for planning. Prevalence is higher in localities with socio-economic disadvantage and above average levels of experiences of adversity, and this should inform targeted early identification, prevention and specialised workforce planning.

Using the combined UK live birth figure of approximately 594,677 (Office for National Statistics, 2024), and translating prevalence rates into annual counts, the estimates are as follows:

Table 1: Prevalence rates of insecure attachment

Scenario	Prevalence rate	Estimated number of infants
Low prevalence (insecure and disorganized attachment)	40%	237,900
Midrange (insecure and disorganized attachment)	42.5%	252,700
High prevalence (insecure and disorganized attachment)	45%	267,600
Disorganized attachment	15%	89,200



5 SPECIALISED PARENT-INFANT RELATIONSHIP TEAMS IN THE UK

This chapter describes the provision and role of parent-infant teams, outlining their core functions and place within the wider early years and perinatal system. It explains how these specialised teams work to promote early relational health, support the development of secure attachment and intervene when early relationship difficulties emerge, positively impacting on the safety, wellbeing, and healthy development of babies. The chapter also sets out the multi-disciplinary nature of parent-infant teams, the evidence-based approaches they use and the ways in which they collaborate with maternity, health visiting, perinatal mental health, early help and voluntary sector services to ensure coordinated support for families.

5.1 THE PROVISION OF PARENT-INFANT TEAMS

Parent-infant team's provision of specialised support strengthens the earliest relationships between babies and their parents and carers. These relationships are foundational to a child's emotional, cognitive, and physical development. Despite their shown impact, access to specialised parent-infant relationship teams across the UK remains severely limited. Further information on current provision is available in the Parent-Infant Foundation '[Who is holding the baby?](#)' report.

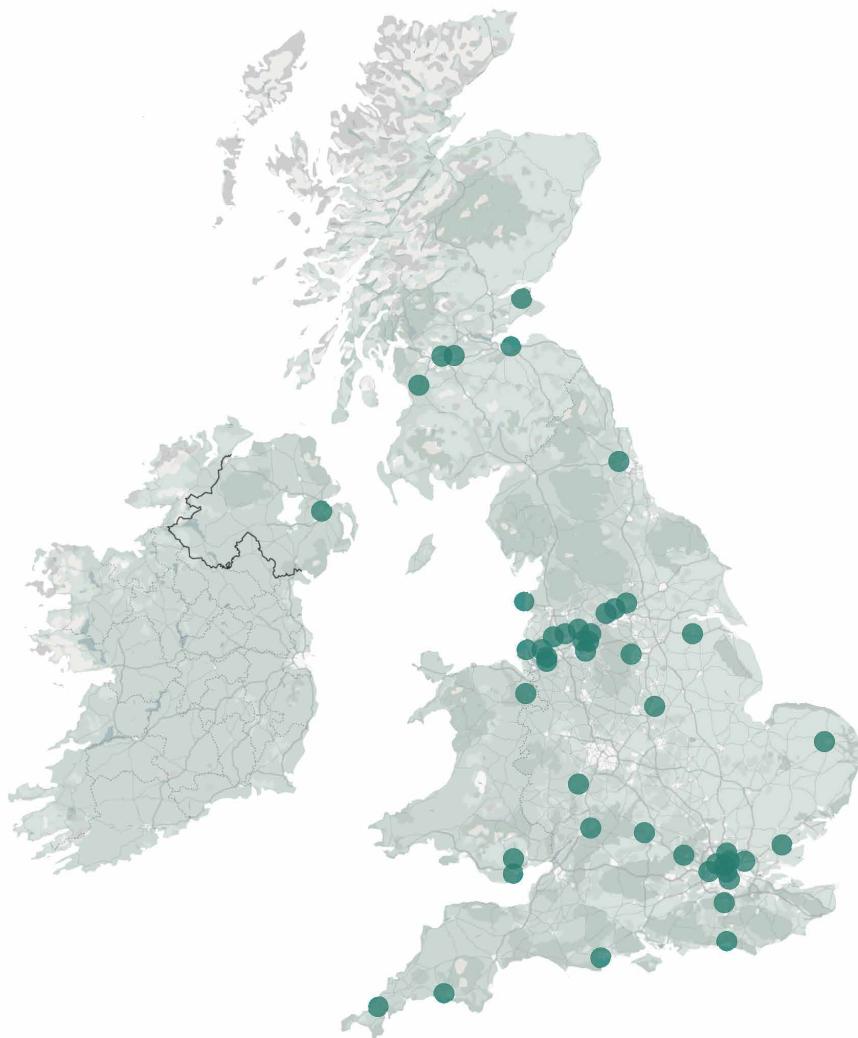
As of 2025, only 51 teams are operational nationwide, this is expected to collectively be able support a total of 4,400 to 6,500 families per year. Parent-infant teams are located in different parts of the system with various funders. Many teams are part of public sector provision such as Child and Adolescent Mental Health Services (CAMHS) and some sit in the voluntary sector.

[Chapter four](#) in this report estimates that based on prevalence and birth rates figures, around 237,900 to 267,600 infants in the UK each year may experience insecure or disorganised attachment patterns. This suggests a significant gap in unmet need with current service provision able to cover between 1.5 to 2.4% of families, while some other estimates show this figure to be around 4% to 6% of babies who currently need specialised support (PIF, 2025).

Evidence of this unmet need is not as visible as expected, such as by services being overwhelmed by referrals and long waiting lists. Reports suggests this may be due to poor, or a lack of, early identification of infant mental health and parent-infant relationship difficulties in the wider system, as well as families being supported in part by other services, including perinatal mental health, local authority and voluntary sector services, where data may not consistently be collected and shared publicly. This is unlikely to provide the specialised relationship based support that is needed. Additionally, awareness and access to the services could be barriers hindering service use that is needed (PIF, 2025).

Many regions lack parent-infant teams entirely, and commissioning remains inconsistent. A recent qualitative study found that lack of awareness, funding constraints, and absence of clear accountability are major barriers to expanding services (McSweeney, L., Bateson, K., Hamilton, W. *et al.*, 2025).

Diagram 2: Location of parent-infant teams in the UK



Access to parent-infant teams remains uneven across the UK, with significant gaps in service provision in rural, coastal, and deprived urban areas. Regions such as the North East and parts of the Midlands have little specialised parent-infant relationship team coverage. These geographic disparities are compounded by demographic and racial inequalities. Families facing adversity, including those living in poverty, from racialised communities, or experiencing parental mental health challenges, are disproportionately affected. Black mothers, for instance, are over twice as likely to be hospitalised for perinatal mental illness compared to white mothers (Royal College of Midwives, 2025). Babies of Black ethnicity in the UK remain more than twice as likely to be stillborn compared with their white counterparts (5.84 versus 2.71 per 1,000 total births), and neonatal mortality rates are also higher for both Black and Asian babies than for white babies, according to the latest MBRRACE-UK Perinatal Mortality Surveillance Report. These racial inequalities are connected to socioeconomic inequalities in perinatal outcomes, and contribute to poorer outcomes for both mother and baby, as untreated relational difficulties in the perinatal period can have lasting developmental consequences.

5.2 THE ROLE OF PARENT-INFANT TEAMS

Parent-infant teams are specialised services focused on supporting early relationships where there is risk of insecure attachment, along with early adversity or parental mental health concerns which may impact the parent-infant relationship.

Teams often work with families experiencing more severe relational and infant mental health difficulties that cannot be adequately addressed by universal or other targeted services. Parent-infant teams are often the only services in which the baby is designated as the formal 'record holder' and positioned as the primary subject of assessment and intervention, ensuring that clinical activity is oriented towards the baby's experiences and developmental needs. The core functions of teams include:

- **Assessment:** a specialised assessment focused on the social, emotional and mental health needs of the baby, parent(s) and parent-infant relationship. Assessments typically use structured observation, validated screening tools and have a multi-disciplinary approach. This assessment identifies the severity and complexity of difficulties and informs the subsequent care plan.
- **Early identification:** supporting practitioners and the wider system to identify infant mental health and parent-infant relationships difficulties. Parent-infant teams are often integrated into universal services such as the Best Start in Life Family Hub programme in England.
- **Direct therapeutic interventions:** following a specialised assessment, interventions may be offered which are tailored to the needs of individual babies and their parents. Typically these are a mix of dyadic (parent and baby), triadic (parent, baby and another family member/caregiver) or group interventions which strengthen parent-infant relationships using evidence-based approaches such as video-feedback, parent-infant psychotherapy and attachment-informed parenting support (Dozier *et al.*, 2014; Steele *et al.*, 2019).
- **Workforce development:** including training, consultation and reflective supervision for health, early years and social care staff is used to embed relational practice across universal services and the Healthy Babies and Best Start Family Hubs teams and improve early detection and response.
- **Multi-agency working:** including co-ordinated pathways with maternity services, perinatal mental health, health visiting, social care and voluntary organisations to ensure timely, proportionate responses, helping system partners develop early childhood strategies and to relieve later pressures on CAMHS and child protection systems.

Specialised parent-infant relationship teams operate across prevention, early intervention and targeted therapeutic care to provide timely, proportionate support. By improving early detection, strengthening parent-infant interactions and supporting the wider workforce, the teams aim to improve outcomes for children and families and contribute to the sustainability and effectiveness of the broader service system.

5.3 VARIATIONS BETWEEN TEAMS

There are a number of notable differences between the teams that participated in the interviews. The interviews, with a sample of seven parent-infant teams in the UK, showed that the teams varied in size, setting, funding arrangements and governance, reflecting the diversity of parent-infant support provision across the UK. Governance and funding arrangements are diverse with some teams fully NHS funded through Integrated Care Boards (ICB) or ICBs and local authority partnerships, while others operate as independent charities supported by grants, contracts, and training income.

The majority of teams operate with multi-disciplinary workforces, typically including clinical psychologists, child psychotherapists, parent-infant psychotherapists, family therapists, trainee and assistant therapists, infant mental health practitioners, specialised midwives, specialised health visitors, social workers and administrative staff.

Team sizes varies widely, from a single practitioner in a rural team covering a large area to over ten whole time equivalent (WTE) staff in larger urban services. Only one team is uni-disciplinary, comprised of psychotherapists only.

Service delivery models are often hybrid. Delivery occurs face-to-face in family homes, family hubs, children's centres, clinics or therapy rooms. One team that participated in the study delivers only in clinics, with no home visits. Video sessions or telephone check-ins are often used to supplement direct face to face work.

Intervention duration ranges from short-term work of six weeks to long-term support exceeding 24 months. On average, support is estimated to last six to twelve months. Frequency of contact is typically weekly or fortnightly, with some flexibility based on family need. As cases are coming to an end, contact often reduces, for example to monthly.

Referral pathways are primarily professional led, with health visitors, psychological health practitioners in GP surgeries, midwives, and perinatal mental health staff being the most frequent referrers. One team that participated in the study accepts self-referrals.

The majority of parent-infant teams work with families from birth until the child's second or third birthday, while two of the teams that participated in the study extend support up to the fifth birthday. Many teams also provide ante-natal support, working with parents and the relationship with their unborn baby.

Average caseloads range from 10 to 20 families for a whole time equivalent (WTE) post, with many teams averaging caseloads of around 15 families for one FTE post.

All teams also deliver indirect work, with a consistent focus on workforce development, including training health visitors, midwives, and early years staff to improve early identification of needs and promote preventive approaches and delivery of brief interventions. Indirect work such as consultation, reflective case discussions and reflective supervision is delivered across all teams and is a mix of in-person and virtual delivery. Some teams are currently digitalising training packages to maximise their reach and efficiency for indirect work. Parent-infant teams integrate with both universal and targeted services, thereby reaching babies across different levels of need.

Teams use a combination one to one and group work and many use combinations of interventions.

5.4 HOW PARENT-INFANT TEAMS MEASURE IMPACT

A range of validated tools are used to assess the quality of parent-infant relationships and related domains such as parental mental health, attachment, and reflective functioning. These tools vary in format, including clinician-rated scales, observational assessments, and self-reported questionnaires.

Below is a summary of some of the most commonly used, evidence-based measures in UK practice, based on the interviews conducted as part of this study. This list is not exhaustive and further detail on outcome measures are included in the [Measuring What Matters](#) report.

- ◎ **The Parent-Infant Relationship Global Assessment Scale (PIR-GAS)** is a clinician-rated tool that provides an assessment of the quality of the parent-infant relationship. It places relationships on a continuum from well-adapted to disordered and is used in specialised infant mental health services.
- ◎ **The Maternal Postnatal Attachment Scale (MPAS)** is a self-report questionnaire that assesses maternal feelings towards the baby, including pleasure in interaction, absence of hostility, and the quality of attachment.

- ◎ **The Maternal Antenatal Attachment Scale (MAAS)** complements the MPAS by assessing maternal emotional attachment to the unborn child during pregnancy. It captures both the quality and intensity of the mother's feelings and thoughts about her baby.
- ◎ **The Parental Reflective Functioning Questionnaire (P-PRFQ)** measures a parent's capacity to understand and reflect on their child's mental states. Reflective functioning is a key component of sensitive caregiving and secure attachment.
- ◎ **The Newborn Behavioural Observations (NBO)** is a structured clinical tool and relational intervention used in the early postnatal period. It involves observing and sharing insights about a newborn's behavioural cues with parents, helping them to better understand and respond to their baby's needs.
- ◎ **The Maternal Object Relations Scale (MORS)** is a self-report measure that assesses a mother's internal representation of her infant. It explores dimensions such as warmth, pleasure, and perceived intrusion, providing insight into how the baby is experienced emotionally by the parent and how this may influence interactions and relationship quality.
- ◎ **Goal Based Outcomes (GBOs)** are an individualised outcome measurement approach in which parents collaboratively identify and rate progress towards personally meaningful goals over time. GBOs are commonly used to capture change that may not be fully reflected in standardised measures, supporting a personalised and strengths-based evaluation of impact.

Structured clinical observation is central to relational assessment. Practitioners often use a range of relational frameworks to guide their observations and inform multi-disciplinary formulations.

A variety of tools and approaches are used to support parent-infant relationships, with the tools and approaches carefully selected to meet the needs of babies, families, and the local service and commissioning needs. Differences in programme structure, intensity, outcome measures, and reporting methods make it challenging to collect consistent, comparable data across teams that can be aggregated to a national level.

In addition to relationship-specific tools, several validated mental health screening tools are used to assess parental anxiety and depression, which is closely linked to the quality of parent-infant interactions. Anxiety and depression are known to impact bonding, sensitivity, and the overall quality of parent-infant interactions. The following tools are commonly used:

- ◎ **The Patient Health Questionnaire (PHQ-9)** is a nine-item self-report tool that assesses the severity of depressive symptoms over the previous two weeks. It is commonly used in primary care, perinatal mental health, and CAMHS settings
- ◎ **The Generalised Anxiety Disorder scale (GAD-7)** complements the PHQ-9 by assessing symptoms of generalised anxiety. It consists of seven items and provides a reliable measure of anxiety severity. Like the PHQ-9, it is widely used in UK clinical settings and is often administered alongside depression screening to provide a fuller picture of parental mental health
- ◎ **The Hospital Anxiety and Depression Scale (HADS)** is a 14-item self-report questionnaire developed to detect symptoms of anxiety and depression in adults. It includes two subscales - one for anxiety and one for depression - each comprising seven items. HADS is particularly useful in non-psychiatric settings, such as maternity services, where physical symptoms may overlap with mental health concerns
- ◎ **The Edinburgh Postnatal Depression Scale (EPDS)** is a 10-item self-report questionnaire developed specifically to screen for postnatal depression. It focuses on emotional and cognitive symptoms rather than physical ones, which may overlap with typical postpartum experiences. The EPDS is routinely used by health visitors, midwives, and GPs in the UK, typically around six to eight weeks after birth, and increasingly during pregnancy.

5.5 THE CLINICAL EFFECTIVENESS OF PARENT-INFANT RELATIONSHIP INTERVENTIONS

Specialised parent-infant relationship teams deliver interventions addressing interlinked domains, including strengthening parent-infant relationships, improving parental mental health, and supporting early child development and wellbeing. Parent-infant teams are unique in that they offer a range of parent-infant relationship interventions tailored to the needs of individual babies and families, following a comprehensive assessment. The needs of the baby and parent-infant relationship are the main focal points of interventions.

Evidence based approaches, including Video Interaction Guidance, Newborn Behavioural Observations, Parent-Infant Psychotherapy, Circle of Security, and Theraplay, all demonstrate significantly greater improvements in parenting and child development compared to interventions without a focus on responsive caregiving (Bakermans-Kranenburg *et al.*, 2023).

Parent-infant relationship interventions are clinically effective in improving maternal and infant outcomes, and evidence demonstrates that these interventions enhance maternal sensitivity, reduce maternal psychological distress, and support babies' emotional regulation and attachment security (Fonagy *et al.*, 2016; Wittkowski *et al.*, 2025).

For example, a pilot randomised controlled trial involving 32 mothers and their babies found that six weeks of parent-infant psychotherapy significantly improved maternal sensitivity, as measured by the Emotional Availability Scales, and reduced maternal depression and psychological distress (Fonagy *et al.*, 2016). A systematic review of 77 research studies, including 5,660 participants, shows that therapeutic interventions in the very early months and years of life can help to prevent and reduce mental health difficulties both for parents and their children by focussing on the relationship between them (Association of Child Psychotherapists, 2022).

Structured attachment-based interventions, including Video Interaction Guidance and Circle of Security, have been associated with improvements in maternal parenting knowledge and responsiveness, yielding almost four times greater impact on parent-child interactions than programmes lacking a relational focus (Bakermans-Kranenburg *et al.*, 2023).

Infant outcomes are also positively affected. Parent-infant psychotherapy and other attachment-focused programmes improve infant regulatory symptoms, with some interventions demonstrating reductions of up to 50% in problematic behaviours post-intervention (Wittkowski *et al.*, 2025; ScienceDirect, 2020). Longer term follow-ups indicate that 10 to 18 sessions can sustain improvements in infant behaviour, maternal depression, parenting stress, and parental self-efficacy (SpringerLink, 2022).

6 THE COST OF PARENT-INFANT TEAMS

Currently there are 51 specialised parent-infant relationship teams operating across the UK, with an additional 14 teams in development. This marks a significant increase from the 27 teams reported in 2019, reflecting a growing recognition of the importance of early relational support for infants and their parents or carers. These teams are primarily located in England, Scotland, and Wales, with some operating within NHS trusts, local authorities, and the voluntary sector. There is one team in Northern Ireland.

Teams provide therapeutic support to families experiencing severe, complex, and/or enduring difficulties in their early relationships (known as direct work), as well as a range of training, consultation, and supervision across health and children's services (known as indirect work).

6.1 ESTIMATED COSTS FOR DIFFERENT MODELS IN THE UK

The costs of parent-infant teams vary considerably depending on the team's model, staffing composition, location, and the type of costs being considered. The following provides an overview of estimated costs for different models in the UK.

Greater Manchester model

A cost analysis of developing specialised parent-infant relationship teams across England drew on the Greater Manchester model. A baseline team of 7.33 whole time equivalent (WTE) staff has an estimated total wage cost of £273,560. Accounting for non-wage costs, such as National Insurance and pension contributions (assumed at a 14% uplift), the total annual cost per team is £313,110.

The breakdown of these costs by professional role is as follows:

- ◎ Clinical psychologist/child psychotherapist cluster lead (0.33 WTE): £24,079
- ◎ Clinical psychologist/child psychotherapist locality lead (1 WTE): £60,855
- ◎ Early attachment specialist (2 WTE): £93,613
- ◎ Mental health practitioner (1 WTE): £46,806
- ◎ Social worker (1 WTE): £37,973
- ◎ Administrative staff (1 WTE): £27,650
- ◎ Voluntary sector worker/peer supporter (1 WTE): £22,133.

An alternative team composition result in different costs, for example:

- ◎ With a clinical psychologist as cluster lead: team cost of £298,000 (pre-training)
- ◎ With a child psychotherapist as cluster lead: team cost of £272,400 (pre-training)
- ◎ A larger team (9.6 WTE): £492,310
- ◎ A smaller team (5.7 WTE): £265,853.

Training costs for one parent-infant team are estimated at £42,913. (Greater Manchester Perinatal and Parent Infant Mental Health Model, 2020).

Alternative team costs - Cwm Taf Morgannwg, Wales

Costed proposals for a specialised regional parent-infant team in the Cwm Taf Morgannwg (CTM) region calculated costs under three levels of sufficiency (excluding on-costs), as follows:

Table 2: Cwm Taf Morgannwg costs

Investment	Total cost (£k)	Maximum families seen per annum	Implied cost per family (plus on-costs)
Minimum offer	£404,500	382	£862
Strengthened offer	£777,500	759	£926
Full sufficiency	£1,108,500	1,139	£907

Staffing assumptions for the Cwm Taf Morgannwg model include a Head of Service (a band 8C psychologist or psychotherapist, approx. £75,000 plus on-costs) and team leaders and parent-infant therapists. Practitioners are expected to divide clinical capacity evenly between direct work with families (50%) and indirect activities, including consultation, supervision, and training. New staff require post-qualification training, estimated at £1,000 per person in the first year. (Cwm Taf Public Services Board, 2020).

Alternative team costs - Healthy Little Minds, Nottingham

The Healthy Little Minds (HLM) programme provides early parent-infant support in Nottingham. Staffing includes one project administrator, five maternity and family support workers, four specialised practitioners, one senior specialised practitioner, one team manager, and one service lead.

Total annual running costs including salaries and operational expenses are £471,631 (Nottingham City Council, 2025).

Alternative team costs - Kent County Council

Kent County Council recently tendered for a Parent-Infant Mental Health Service (PIMHS). Delivery includes clinical specialised assessment for families with moderate to severe difficulties, delivery of specialised therapeutic evidenced based interventions, group and individual therapeutic interventions to parents/carers and their babies from conception to a child's second birthday, specialised parent-infant mental health case consultation and supervision for the workforce, and the design and delivery of relevant workforce development and training to build capacity across the system. The proposed structure of the team is as follows:

- ◎ Overall clinical lead x 1 WTE
- ◎ Specialised clinical lead x 1 WTE
- ◎ Operational team specialised practitioner x 3 WTE
- ◎ Administrator x 1 WTE.

The budget over four years is £2,043,250, which equates to an annual budget of £441,357. (Kent County Council, 2025).

Other examples of team costs

Interviews with seven UK parent-infant teams highlighted considerable diversity in size, setting, and delivery. Teams are funded through a mix of NHS, Integrated Care Boards, local authority partnerships, and independent charitable income, and some national grants.

Team budgets reflect the service scale and workforce composition. Oxford Parent-Infant Project (OXPIP), a charity team, costs £449,000 per year for the organisation, of which £252,000 is the cost of clinical and clinical administration salaries. OXPIP sees around 300 families per year.

Some teams were unfamiliar with their budget allocation, as they were based within a wider NHS team, while others reported annual budgets from £380,000, to £450,000 plus Start for Life funding via a grant of £140,000, up to £545,000 and £607,000. In section 5.3, we discussed how factors such as team composition, service models, intervention duration, referral pathways and average caseloads can vary from team to team. These variations can all impact on the costs of service delivery.

7 SUMMARY OF COSTS OF INSECURE ATTACHMENTS

This chapter provides a summary overview of the economic and social costs associated with insecure parent–infant attachments in the UK. It examines how early relational difficulties can lead to an increased demand on health, social care, education, and wider public services, as well as longer term impacts on child development, mental health, and family functioning. Drawing on existing literature and economic modelling, the chapter summaries both direct and indirect costs.

By summarising these costs, the chapter sets the context for understanding the value and return on investment of early relational interventions and parent–infant relationship teams. Further detail on costs is included in the evidence review, at [appendix one](#).

7.1 PUBLIC SECTOR AND SOCIETAL COSTS OF INSECURE ATTACHMENT

Early attachment patterns are well established as predictors of long-term outcomes across health, mental health, education, social functioning, and risk related behaviours (Benoit, 2004). Insecure attachment contributes to increased costs for individuals, families, and public services across the life course. These outcomes frequently intersect with other adversities, so estimates have to be drawn from multiple UK cohort studies, administrative data, and economic modelling exercises rather than a single dataset. Because interventions and outcomes are often bundled together, combining improvements in behaviour, mental health, and educational attainment, it is challenging to isolate the specific costs attributable to attachment insecurity.

Evidence from UK studies illustrate the scale of these costs. A UK cohort analysis indicates that children with an insecure maternal attachment incur an estimated additional £3,500 per year, while those with insecure paternal attachment may generate up to £12,700 extra annually, reflecting greater demand for health services, social care, educational support, and criminal justice involvement (King's College London, 2017; LSE, 2019; Bachmann *et al.*, 2019). By adolescence, the annual costs for those with insecure maternal attachment rise to £10,199 compared with £6,743 for securely attached peers, and insecure paternal attachment is associated with £13,978 versus £1,353 for secure attachment (Bachmann *et al.*, 2019). A substantial proportion of these costs arises from additional educational involvement, including meetings, referrals, and interventions.

Further evidence shows that children experiencing the least sensitive parenting incur cumulative costs of £21,763 by early adolescence, compared with £1,619 for those in the most sensitive quartile, even after controlling for poverty, IQ, and behavioural difficulties (Bachmann *et al.*, 2019). This demonstrates that parental sensitivity, including early relationships, is an important factor influencing children's longer-term social, behavioural, and economic outcomes.

Anti-social behaviour is a major driver of cost escalation, for example one study showed by age 28, individuals with conduct disorder cost society ten times more than those without problems, at £70,019 versus £7,423 (Scott *et al.*, 2001). While this study does not directly examine parent–infant attachment or parental sensitivity, conduct disorder is a common reason for referral to children and adolescent mental health services, and early relational difficulties and insensitive parenting are known risk factors for later behavioural problems.

While at a system level, childhood adversity, including insecure attachment, can reduce lifetime earnings by up to 20%, with associated reductions in tax contributions and increased welfare reliance (Knapp *et al.*, 2011).

Table 3: Summary of public sector and societal costs

Risk factor / attachment type	Estimated cost	Source
Insecure maternal attachment (childhood)	£3,500 per year	King's College London, 2017; LSE, 2019; Bachmann <i>et al.</i> , 2019
Insecure paternal attachment (childhood)	£12,700 per year	Bachmann <i>et al.</i> , 2019
Insecure maternal attachment (adolescence)	£10,199 per year	Bachmann <i>et al.</i> , 2019
Insecure paternal attachment (adolescence)	£13,978 per year	Bachmann <i>et al.</i> , 2019
Least sensitive parenting quartile	£21,763 cumulative	Bachmann <i>et al.</i> , 2019
Conduct disorder, by age 28	£70,019	Scott <i>et al.</i> , 2001

7.2 EARLY INTERVENTION AND PREVENTION

Early interventions targeting parent-infant relationships and early identification of parental mental health difficulties, are associated with improved attachment security and reductions in behavioural and emotional problems (Cowan & Cowan, 2019; NICE, 2020; Parent-Infant Foundation, 2023).

Economic analyses consistently indicate that early intervention provides the highest long-term return on investment (ROI). For example, the Healthy Little Minds (HLM) programme in Nottingham achieved a 21.4% reduction in perinatal and postnatal depression among participating women (Nottingham City Council, 2022). The HLM programme demonstrated an ROI of up to £9.84 per £1 spent, with annual costs of £471,631 and accrued benefits of approximately £4.6 million (Nottingham City Council, 2022).

In Liverpool, a social impact study found that for every £1 invested in a voluntary sector specialised parent-infant relationship team, £13.18 was saved in public costs, including health, social care, education, and criminal justice, and £59.91 was created in social value including quality of life and future earnings (Person Shaped Support, 2017, Parent-Infant Foundation, 2022). Evaluations of Incredible Years and Triple P also show long-term savings of up to £15.80 per £1 invested (Knapp *et al.*, 2011; NICE, 2020).

Interventions targeting high risk populations demonstrate measurable safeguarding benefits. For example, a UK attachment therapy project, Norfolk PRIMAP, enabled 85.4% of families with babies "at the edge of care" to remain or reunite with their child, compared with a national average of around 50% for similar cases (Parent-Infant Foundation, 2022).

Furthermore, general public health and prevention interventions in the UK return on investment (ROI) studies show returns of £4 to £9 for every £1 invested (Early Intervention Foundation, 2018).

A Better Start (ABS) is a 10 year, £215 million National Lottery funded programme focused on promoting good early childhood development. The programme funded five local partnerships across England to test new ways of making support and services for families stronger, so that children can have the best start in life.

The evaluation involves a cohort study in the five ABS areas and 15 matched comparison sites, beginning in pregnancy in 2017 and ending in 2024 when the child is age 7. A Better Start economic evaluation is due to report in Spring 2026 (Barlow *et al*, 2017). The Start for Life programme is being delivered in 75 local authority areas in England, with a national evaluation due to be published in 2026, which will provide further evidence on implementation and impact. Early relational support can therefore prevent escalation to intensive statutory services while promoting positive developmental trajectories.

Table 4: Summary of early intervention and ROI

Programme / intervention	Key outcomes	ROI / cost savings	Source
Healthy Little Minds (Nottingham)	21.4% reduction in perinatal/postnatal depression	£9.84 per £1 invested (£471,631 cost, £4.6m benefits)	Nottingham City Council, 2022
Parent-infant relationship teams (Liverpool)	Reduced health, social care, education, criminal justice costs	£13.18 saved per £1; £59.91 social value per £1	Person Shaped Support, 2017; Parent-Infant Foundation, 2022
Incredible Years & Triple P	Improved child behaviour	Up to £15.80 per £1 invested	Knapp <i>et al.</i> , 2011; NICE, 2020
Norfolk PRIMAP	85.4% families remained/reunited with children	Significant safeguarding benefit	Parent-Infant Foundation, 2022

7.3 THE COST OF INACTION

Failing to intervene early in parent-infant relationships incurs substantial costs. Evidence shows that the annual cost of “late intervention” where crisis services respond to problems that could have been prevented, is estimated at £16.6 billion across local authorities, the NHS, schools, and the criminal justice system (Early Intervention Foundation, 2016). The Royal Foundation (2021) estimates the cost of not intervening early in children’s lives in England at £16.13 billion per year.

Childhood mental health problems, often linked to early relationship difficulties, contribute to approximately £1 trillion in lost productivity globally across a generation (WHO, 2021). While perinatal mental ill health alone costs the UK up to £8.1 billion annually, including health and social care, education, criminal justice, and productivity losses (Bauer *et al.*, 2014; NHS England, 2022) difficulties in the parent-infant relationship can be bidirectional. This means that stress or behavioural challenges in the baby can exacerbate parental mental health problems, and parental difficulties can in turn affect the baby. Effective interventions therefore need to support the parent and infant relationship.

These figures reinforce the urgency of investing in early relational interventions to improve outcomes and reduce long-term public expenditure.

Comparing costs of inaction with early intervention demonstrates the potential for significant savings. Interventions targeting parent-infant relationships and high-risk families can reduce demand for statutory services, improve child wellbeing, and deliver strong social and economic returns.

8 MEASURING THE ECONOMIC IMPACT OF PARENT-INFANT TEAMS

This chapter examines the economic impact of parent-infant teams in the UK, presenting evidence on how teams generate value across health, social care and wider public services. It outlines the methodologies used in this study to quantify costs, consequences and return on investment, drawing on both direct UK-based studies and modelling based on case studies.

8.1 SOCIAL RETURN ON INVESTMENT

A social return on investment is a measure of the wider social, environmental, and economic outcomes of an intervention, expressed in monetary terms relative to the investment made.

To illustrate the potential return on investment of the parent-infant teams, we analysed modelled case study examples of a 'common' case alongside a case with adverse children experiences and high levels of complexity, to indicate a greater potential impact (case studies one and two, see [appendix two](#)).

Quantitative outcome data available for both these modelled cases includes score changes after completion of treatment (estimated to be nine months to one year post initial session) from the Patient Health Questionnaire (PHQ-9) the Generalised Anxiety Disorder scale (GAD-7) and the Parent-Infant Relationship Global Assessment Scale (PIR-GAS).

PHQ-9 and GAD-7 scores can demonstrate the extent to which depression and anxiety measures are reduced clinically, whereas PIR-GAS scores are used clinically and in research as a tool to evaluate the overall quality of the relationship between a parent, or primary caregiver, and a baby or toddler.

Based on this data availability, both case studies have been converted into social return on investment (SROI) figures leveraging literature review evidence identified for anxiety and depression, as well as partial attribution (15%) of the annual social cost of insecure maternal attachments. This is a limited view, as does not include estimated wider and longer term benefits, which can be viewed within the cost consequence analysis section. Specifically, this does not include paternal insecure attachment estimated costs, which evidence suggests can be significantly higher than the social cost of maternal insecure attachment.

A longitudinal study on depression in UK primary care in 2020 sought to evidence the Minimum Clinically Important Difference (MCID) in PHQ-9 and GAD-7 scores. The study concluded that an MCID represented a 20% reduction of scores in these scales, as a useful guide for patients with moderately severe symptoms. This equates to greater than or equal to a 5-point change for PHQ-9 and 4-point for GAD-7. In both of these case studies, changes in scores exceeding MCID thresholds were seen across both measures.

The annual social cost of insecure maternal attachment is estimated to be £3,500, as identified through the following sources: King's College London, 2017; LSE, 2019; Bachmann et al., 2019.

Although clear attribution cannot be guaranteed, it is assumed that a proportion of this benefit can be applied due to the scale of PIR-GAS score change achieved, whereby in the 'common' and 'severe' case studies this equates to a shift from Disordered attachment to the PIR-GAS 'Perturbed' categorisation (defined as relationships that are functioning reasonably well, with short term, disturbance). This attribution proportion has been prudently taken to be 15% but should be researched further and evidenced when possible, this equates to a benefit of £525 per relationship after one year. Clear mapping of PIR-GAS scores to attachment classification is not widely accepted, as it is intended to assess the overall quality of the parent-infant relationship rather than explicitly define the relation as secure or insecure. Previous empirical studies (Aoki, Y. et al., 2002) do indicate that lower PIR-GAS scores, especially below 50, correlate with:

- ◎ Disrupted caregiver responsiveness
- ◎ High levels of conflict or emotional unavailability
- ◎ Patterns often associated with insecure or disorganised attachment.

Scores below 40 indicate a disordered relationship, which in clinical samples can often overlap with severe attachment disturbances (including disorganised attachment), neglect, or abuse (ZERO TO THREE, 2005).

Due to limitations of data availability, only the impact after nine months to one year post initial contact to the service has been modelled, this analysis does not therefore encompass longer term impact and wider benefits identified. Additionally, this analysis does not consider cases where this level of impact may not occur, and so it is inappropriate to assume this estimated level of benefit will be seen on average or for all those seen by the service.

The financial value for changes in scores was calculated using Mukuria C et al., 2025 and National Institute for Health and Care Excellence (NICE) thresholds for quality-adjusted life years (QALY). This equated to a value, per point reduction, of £320 for PHQ-9 (depression) and £300 for GAD-7 (anxiety). The technical details of this method are explained below.

The value of a change in point score reduction for the PHQ-9 and GAD-7 were calculated leveraging mapping algorithms to EQ-5D as a utility measure, with a QALY gain per point value of 0.015 and 0.016 used respectively for prudency (Mukuria C et al., 2025). These values were then converted into financial terms using a NICE new medicine cost-effectiveness threshold QALY value of £20,000, again taking the lower value of ranges for prudency. This equated to a value per point reduction of £320 for PHQ-9 and £300 for GAD-7. Using NICE's QALY threshold to monetise changes in EQ-5D-3L scores is limited by its nature as a policy-driven benchmark rather than a universal economic valuation of health gains.

The costs of service delivery were taken as the implied cost per family from table 5. For the 'common' case, it was assumed appropriate to use 'full sufficiency' offer costs, whereas the 'severe' case used the 'strengthen offer' cost. A summary of results for both case studies can be seen below:

Table 5: Summary of outcome measure SROI results, by case study

	PHQ-9 point reduction	GAD-7 point reduction	Combined score change economic value	Maternal insecure attachment cost avoided	Cost of service provision	SROI estimate (9 months to one year)
Common case	10	9	£5,900	£525	£907	608%
Severe case	17	15	£9,940	£525	£926	1030%

This indicative piece suggests that the estimated economic return of the parent-infant team's in these two cases, for anxiety and depression and secure attachment measures, is £6.08 and £10.30 for every £1 invested, creating a strong early business case for investment into the service.

All six case studies are included at [appendix two](#).

8.2 COST-CONSEQUENCE ANALYSIS

This section presents a cost-consequence analysis of interventions designed to support parent-infant relationships, drawing on current evidence to assess both economic and social impacts. The analysis comprises two main parts:

- ◎ For early childhood impact, we have conducted a social return on investment analysis of two case studies discussed in the previous section, to identify the outcomes and value to the baby and family.
- ◎ For mid-term (childhood and adolescence) and long-term (up to a whole lifetime) impact, we have analysed the evidence reviewed in [appendix one](#) of this report to identify a range of impact categories that can be linked to the parent-infant relationship.

This analysis of the evidence review has identified a range of 56 research sources which place a financial value on outcomes that are linked to early relational support. From this list, an indicative calculation has been carried out on 14 research findings where the impact can be expressed in terms of a cost to an individual / individual family, rather than a whole society cost.

Attribution to a parent-infant relationship intervention becomes increasingly difficult as the timescales increase from early childhood impacts to long-term impacts. Additionally, at a societal level, some of the impacts are much more prevalent than others – for example, although homelessness is associated with very high impact costs, it will not affect most individuals. To illustrate the benefits resulting from early relational support, we have included an indicative attribution and prevalence multiplier ranging from 0.2% to 15% for each impact. There is no robust way of determining this multiplier, so this is intended to be an illustrative, or hypothetical analysis, of a cautious level of attribution of costs.

A full tabular breakdown of the cost-consequences of specialised parent-infant relationship teams is provided in [appendix three](#), including the cost-consequences using the indicative multiplier described above. A summary is given below.

Early childhood cost-consequences

The first time period over which there are cost-consequences is through to the age of five. In the previous section, we have described how an SROI analysis of two case studies shows a return of between 608% and 1030% depending on the severity of a parent's needs.

In addition to the value identified through the SROI analysis, parent-infant teams can help support systemic change through inter-agency coordination and referral quality. Evaluations show that parent-infant teams strengthen collaboration between health, social care, and early years professionals, ensuring that families with emerging relational difficulties are identified earlier and receive appropriate support. This results in more accurate and effective referrals, better coordination of care, increased capacity for practitioners to support babies and parent-infant relationships on their own caseloads, and reduced duplication of effort across services (Parent-Infant Foundation, 2023; PAIRS/LEAP evaluations, 2024).

Mid-term impact

It is clear from the evidence review that the benefits of positive parent-infant relationships and secure attachment continue as the baby develops into a child and a young person and then beyond into adulthood. Much of the identified research falls into one of two distinct time periods:

- ◎ Costs that are related to childhood and adolescence, which we have categorised as 'mid-term impacts'
- ◎ Costs that are related to a whole lifetime, which we have categorised as 'long-term impacts.'

Mid-term impacts - ages 5-11

Development outcomes – Insecure attachment can impede school readiness. Children with insecure attachment may experience delays in gross and fine motor skills, cognitive functioning, language acquisition, and socio-emotional competencies. Early years programmes that combine socio-emotional and cognitive skill development typically cost between £2,000 and £6,000 per child per year (Sylva et al, 2014). Early speech and language therapy (SLT) interventions cost approximately £1,200 per child and can substantially reduce the need for more intensive services later (Law et al, 2017).

Mid-term impacts - ages 11-18

Criminal justice – insecure attachment is associated with an increased risk of criminal behaviour and involvement in the criminal justice system. Mean annual costs of nearly £6,000 per child are associated with severe anti-social behaviour (Romeo, Knapp & Scott, 2006). The annual cost to the criminal justice system of a young offender was approximately £8,000, rising to £29,000 for the most prolific 10% of young offenders (National Audit Office, 2011)

Education – Additional school support, behavioural interventions and SEMH needs provision will all incur additional costs. The cost of providing a place at a Pupil Referral Unit (PRU) in the UK varies. Estimates suggest that the average cost per pupil is between approximately £17,600 and £25,500 per year (Hounslow Borough Council, 2016). The cost of supporting a pupil with social, emotional, and mental health (SEMH) needs is typically covered by the school's notional Special Educational Needs (SEN) budget. For pupils on SEN support, the average annual cost is approximately £3,500. For those with higher needs, the additional support costs up to £6,000 per pupil per year, with local authorities providing top-up funding above this threshold (Department for Education, 2024). Evidence consistently shows that insecure attachment increases the need for additional educational support, including remedial teaching, specialised provision, and in school mental health interventions, which will all incur additional costs.

Healthcare – Insecure attachment is associated with increased risk of anxiety and depression in children. Mental health problems during childhood and adolescence cost between £11,030 and £59,130 per child per year (Parent-Infant Foundation, 2023).

Social services – Adolescents who report insecure attachments to parents and carers have higher levels of involvement in child protection and social care, including fostering or residential care. The unit cost of a child protection plan is approximately £5,321. This includes the costs associated with the assessment, ongoing support, and case reviews (Institute for Fiscal Studies, 2022). Fostering allowances typically range from £24,500 to £26,676 annually (Fostering People, 2025).

Long-term impact

Insecure attachment is consistently associated with a range of long-term risks across an individual's whole life. The main long-term impacts identified are as follows:

Criminal justice – There is an association between insecure attachment and an increased risk of criminal behaviour and involvement in the criminal justice system. The lifetime cost of conduct disorder is estimated at £260,000 per individual (Knapp, Scott & Davies, 2002). Probation service supervision costs an average of £4,500 per person (post-release licence) and £3,150 per person (community order or suspended sentence).

Education, employment, and productivity – Children in care, who frequently exhibit insecure attachment patterns, had attainment gaps of approximately 25 to 30% at Key Stage 2 and 25% at Key Stage 4 compared to their peers. Lifetime earnings differences between those with only GCSE-level education and university graduates can exceed £300,000 over a working life, after adjusting for inflation (Machin and Murphy, 2018).

Housing and homelessness – Insecure attachment has been consistently linked to increased risk of housing instability and homelessness in later life. In the South East of England, the cost of housing one individual in temporary accommodation is estimated at £50 to £90 per person per night. This translates to an annual cost ranging from approximately £18,250 to £32,850 per person (Greater Change, 2023).

Social impacts – Adults with histories of insecure attachment are less likely to volunteer, participate in local decision-making processes, or engage in political activities, contributing to reduced social capital and lower levels of collective efficacy within communities. Estimates suggest that the annual cost per lonely individual is approximately £9,900, reflecting the combined effects on health, work, and social participation (Department for Digital, Culture, Media and Sport, 2017).

8.3 POTENTIAL COST TO THE SYSTEM

Compiling the potential costs across the system collected via the SROI and the cost-consequences analysis as detailed in [appendix three](#), the mismatch in service provision could contribute towards a lifetime cost per family of at least £40,000. The breakdown by category is listed below:

- ◎ Criminal Justice = £5,900
- ◎ Developmental outcomes = £7,300
- ◎ Education, employment, and productivity = £7,600
- ◎ Healthcare = £10,00
- ◎ Social impacts = £3,300
- ◎ Housing and homelessness = £2,400
- ◎ Social services = £3,200
- ◎ Workforce = £700.

If evidence can be attained to show direct attribution of impact across these estimated costs to the system, we expect the case for increased service provision to be strong economically.

The Parent-Infant Foundation have developed costed plans to expand the number of specialised parent-infant relationship teams over each of the five years from 2025-26 to 2030. If these plans were implemented, a total of 144,000 children would be seen over the five year period – an average of 28,800 per year. At this scale of provision, the total lifetime cost saving opportunity for service provision could be over £1.15 billion per year. 28,800 children supported by parent-infant teams per year is still markedly short of universal provision and the potential cost saving opportunities could be greater again if provision was further widened.



9 CONCLUSIONS

This chapter draws together the key findings from the evidence review, cost-consequence analysis and return on investment assessment to demonstrate the substantial societal and public sector costs associated with insecure attachment, and the clear economic and developmental benefits of timely early interventions.

Parent-infant teams are established in response to local need and shaped by available funding. Teams interviewed range from services established as recently as three years ago, to mature charities established 20 years ago, and an NHS service established almost 20 years ago. For direct work, the teams share similar clinical approaches, adopting biopsychosocial frameworks that focus on the developmental and mental health needs of the baby in the context of their parent-infant relationships. Geography influences delivery and rural teams face challenges from travel distances and small populations, whereas urban teams often work with higher population densities and greater ethnic and cultural diversity. Teams use home visits, clinic or community based appointments, which affects caseload sizes due to travel requirements.

The study demonstrates that parent-infant relationship teams generate clear economic value by improving early attachment, which reduces demand on acute and specialised services, and supports better developmental and family outcomes. Evidence shows that early relational support contributes to measurable savings across health, social care, and education systems in the short term. While there is evidence of also reducing longer term costs linked to developmental delay, safeguarding concerns, parental mental health, and later service use, these outcome areas are often bundled together in the literature, making precise attribution to specific interventions challenging.

Economic analyses consistently indicate that parent-infant teams provide a strong return on investment. Across the literature, these teams are positioned as comparatively low-cost, high-impact interventions that improve outcomes while relieving pressure on overstretched public services. This study strengthens the overall economic case, showing that investment in early relationships and infant mental health is both an effective preventative strategy and a robust economic decision for local systems seeking sustainable, long-term impact.

The social return on investment assessment shows us that a robust but narrow view of impact from the service - looking only at anxiety and depression and near-term relational metrics for the mother - highlights the strong business case for continued and wider delivery. Clinical measures for changes in anxiety and depression, as well as partial attribution of expected benefits from improvements to insecure maternal attachments, signal with confidence that the cost of running the service is greatly outweighed by the SROI over a one-year timeline. The estimated social economic return is £6.08 in the common case study and £10.30 for the severe study, for every £1 invested.

The cost-consequence analysis shows that improving parent-infant relationships and the security of attachment for the child has a broad long-term impact across a very wide range of domains, such as education, employment, criminal justice and healthcare. These impacts can occur many years after the intervention from the parent-infant team and attributing a cost to the specific intervention cannot be done robustly.

We have included hypothetical analysis based on a cautious level of attribution and this suggests there are high levels of potential cost savings over a lifetime of approximately £40,000 per child. Expanding the provision of parent-infant teams to support 28,800 families each year could therefore create a £1.15 billion cost saving opportunity per year, realised over the lifetime of those seen.

Based on the compelling evidence regarding the prevalence of insecure attachment and the significant economic, social, and clinical benefits delivered by specialised parent-infant relationship teams, this report strongly recommends increased and sustained investment in these vital services across the UK. Current provision falls far short of demand, leaving thousands of families without support. Estimates show that currently just 1.5% to 2.4% of families requiring specialised support are able to receive it. Teams deliver measurable economic and social benefits, reducing long-term public expenditure and early intervention strengthens attachment and bonding, potentially avoiding escalation to intensive statutory services.

The evidence shows that insecure parent-infant attachment contributes to substantial economic costs across health, education, social care and productivity systems. Poor early relationships increase the prevalence of anxiety, depression and behavioural difficulties, which together drive high public expenditure through CAMHS use, school absence, and later adult mental health treatment. Long-term conditions linked to early stress, add further costs through increased NHS treatment and lost productivity. Developmental and educational impacts also carry significant economic implications. Insecure attachment heightens the likelihood of speech, language and communication needs, reduced school readiness and behavioural problems, associated with lower lifetime earnings. Social care costs escalate where relational instability contributes to safeguarding concerns, with residential placements and child protection activity representing major areas of local authority spend.

Overall, the evidence indicates that early relational difficulties create cumulative lifetime costs, while interventions that strengthen parent-infant relationships deliver high returns through reduced service use and improved economic participation

The quantitative evidence on the benefit of the indirect work (training, consultation, and supervision) of parent-infant teams, is currently limited, however the qualitative insights from interviews demonstrate that it plays a crucial role in enhancing staff confidence and skills to make referrals or deliver brief interventions, which directly support parent-infant relationships, as well as strengthening multi-agency collaboration and supporting early intervention, all of which contribute to improved outcomes for babies and families.

The evidence base for attributing medium to long-term economic impacts to specific parent-infant interventions remains limited. However, available studies indicate that these approaches are likely to generate sustained reductions in public service demand and long-term benefits for babies, families and society.

Given the challenges of attribution and the interdependence of multiple outcomes, the estimates presented in this report should therefore be regarded as indicative and illustrative rather than definitive.

10 RECOMMENDATIONS

A national commitment to scaling parent-infant relationship provision

The UK Government and the devolved administrations should commit to a sustained national programme to expand specialised parent-infant relationship teams, with a clear target for reaching a defined proportion of babies by an agreed date. This should include multi-year investment, national leadership and statutory guidance to support consistent local implementation. In England, expansion could be delivered through partnerships with the emerging national network of Best Start Family Hubs, ensuring that specialised early relational support becomes a core component of universally accessible services. In Scotland, Wales, and Northern Ireland, similar integration could be achieved through Health and Social Care Partnerships (HSCPs) and Early Learning and Childcare services in Scotland, the Flying Start programme in disadvantaged areas in Wales, and Sure Start and Early Intervention Transformation programmes in disadvantaged areas in Northern Ireland, enabling specialised support to reach families within the existing early years provision.

A national programme would reduce current variation in provision, strengthen prevention in the early years and help deliver long-term public health gains.

An ambitious but realistic expansion of provision would see the current 1.5% to 2.4% of babies reached by parent-infant teams expanded to 10% of babies by 2030 (Parent-Infant Relationships Services Commissioning Toolkit, 2023). Based on current levels of births in the UK (659,000 in 2024), this would mean approximately 66,000 babies and their parents supported by parent-infant teams by 2030.

Investment should also support the broader activities of specialised parent-infant relationship teams, including consultation, reflective supervision, and workforce training, to strengthen preventative practice across health, social care, and early years services. Prioritising early relational support in this way will generate fiscal savings, improve system efficiency, and deliver multi-generational social and economic benefits.

A strategic, co-ordinated approach to workforce development

The UK Government and devolved administrations should adopt a co-ordinated approach to developing the specialised workforce required to deliver parent-infant relationship teams at scale. This should include modelling workforce demand across nations and regions, strengthening training pathways for practitioners with competencies in infant mental health, and supporting integrated multi-disciplinary teams, by working in partnership with key professional bodies including the Association of Child Psychotherapists and British Psychological Society. In England, this work should be aligned within the forthcoming update to the 10-year NHS Long Term Workforce Plan to ensure adequate supply, sustainable staffing models and clarity around roles, skills and supervision requirements. In Scotland, this should be aligned to the National Workforce Strategy for Health and Social Care (2022) and NHS National Services Scotland Workforce Plan (2024-27).

In Wales this should be aligned to A Healthier Wales: Our Workforce Strategy for Health and Social Care, and in Northern Ireland it should align to the Regional Health and Social Care Workforce Planning Frameworks.

A Modern Service Framework for children and young people's mental health

As part of the implementation of the 10 Year Health Plan, the Government should commission a comprehensive Modern Service Framework for children and young people's mental health. This framework should include clear expectations around the provision of mental health support for under-5s and their families, including the role of parent-infant relationship teams. More broadly, it should promote a consistent, high-quality, evidence-based approach to care, informed by the voices of children, young people, families and professionals across the system.

Inclusion of specialised parent-infant relationship services in commissioning plans

Integrated Care Boards in England should embed specialised parent-infant relationship provision within their strategic commissioning plans as a core element of population health and early intervention. This should include assessing local demand, ensuring sufficient capacity, and commissioning evidence-based parent-infant relationship interventions within integrated models of maternity, health visiting, perinatal mental health and early years services. Recognising parent-infant relationship support as a health priority will help prevent escalation of needs, support family resilience and deliver long-term system savings. ICBs could also establish parent-infant relationship pathways locally, which establish how babies and their caregivers will be supported across different levels of relational need.

Specialised parent-infant relationship provision should be embedded within strategic planning and commissioning across the UK, with Health Boards and Integration Authorities in Scotland, Local Health Boards in Wales, and Health and Social Care (HSC) trusts in Northern Ireland ensuring evidence-based pathways and support for babies and parents.

Strengthened local assessment and accountability

Across the UK, statutory planning and needs-assessment processes should be used to assess parent-infant relationship provision, identify gaps and inequalities in access, and inform coordinated action across health, social care and the voluntary sector to ensure support aligns with local early years priorities.

Local authorities in England should assess existing parent-infant relationship provision through their Joint Strategic Needs Assessments (JSNAs), working closely with ICB's and identifying the proportion of babies reached, the characteristics of families currently underserved, and how provision aligns with local patterns of vulnerability. Health and wellbeing boards should use this analysis to set out clear plans to close gaps, address inequalities and strengthen collaboration between health, social care and the voluntary and community sector. Transparent reporting will support better decision-making and ensure that provision aligns with local early years strategies.

A national data and outcomes framework

To maximise the understanding of the economic impact parent-infant relationship teams, data collection should be strengthened and standardised across teams.

The UK Government and devolved administrations should establish a coherent framework for collecting and using data on access, experience and outcomes in specialised parent-infant relationship teams.

This should define minimum datasets, support common assessment tools, and enable consistent reporting on reach, quality and equity. A shared data infrastructure would help local systems understand levels of unmet need, identify inequalities in provision, and assess the contribution of services to wider objectives such as school readiness, parental wellbeing and reduced demand for more intensive interventions. National oversight is essential to drive learning and continuous improvement.

Routinely capturing standardised indicators would allow a more detailed, system-level understanding of economic impacts over time, supporting evidence-based investment and decisions. This could also include developing approaches to improve attribution of impact over the long term, while recognising that outcomes are influenced by multiple factors and services.

The framework should include four core measures, relating to:

- ◎ baby wellbeing, mental health and development
- ◎ the parent–infant relationship
- ◎ parental mental health, and finally
- ◎ workforce development and indirect work.

See [appendix four](#) for more details. These measures should be piloted in one or two areas, to confirm feasibility before wider implementation.

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APPENDIX ONE: EVIDENCE REVIEW

This appendix presents a structured evidence review of the impact of parent–infant relationship services in the UK, with a focus on the economic value, social value and individual and system-level impacts. Drawing on national evaluations, service data, grey literature and peer-reviewed literature, it synthesises current knowledge on the on the economic and social value of parent–infant relationships.

OVERVIEW: THE IMPACTS OF INSECURE ATTACHMENTS

Early parent–infant relationships play a critical role in shaping psychological, social and physiological development. Secure attachments provide a foundation for positive mental health, effective stress regulation and the development of resilience and adaptability. Through early interactions, children learn to manage emotions, regulate impulses and form trusting relationships, which are essential skills for healthy functioning across the lifespan (Bowlby, 1988; Gunnar & Quevedo, 2007; Parent–Infant Foundation, 2025).

In contrast, insecure attachment is associated with a wide range of mental health difficulties, physiological dysregulation and maladaptive behaviours. Infants with insecure attachment often show elevated cortisol levels, impaired immune function and chronic inflammation, increasing the risk of long-term physical health problems (Slavich & Irwin, 2014; Fuhrmann *et al.*, 2024). These biological vulnerabilities are compounded by relational stressors, with insecure attachment also affecting parental wellbeing and creating cyclical dynamics that may reinforce relational difficulties and attachment insecurity (Centre for Mental Health, 2024).

This section examines evidence linking insecure attachment to developmental, psychological and physical outcomes, drawing on recent UK evidence and studies. It also outlines associated societal and economic costs, including increased demand on mental health services, reduced educational and employment outcomes, and elevated long-term health expenditure.

Mental and physical health

Early relational experiences have profound and lasting effects on mental and physical health across the life course for both the parent and child. Secure attachment in childhood supports emotional regulation, stress resilience and adaptive coping strategies, contributing to improved psychological wellbeing and physical health outcomes in later life. Conversely, insecure or disorganised attachment patterns increase vulnerability to a range of mental health difficulties, including anxiety, depression and behavioural disorders, as well as physical health problems linked to stress dysregulation, such as cardiovascular disease, obesity and immune dysfunction (Parent–Infant Foundation, 2025; Fuhrmann *et al.*, 2024; Centre for Mental Health, 2024).

The following sub-sections explore these associations, drawing on longitudinal studies and UK-specific research, and consider the associated economic and societal costs, where evidence exists.

Anxiety and depression

Insecure attachment in early childhood is a strong predictor of emotional and psychological difficulties across the lifespan. A meta-analysis of 67 studies involving over 17,000 participants found that attachment insecurity, particularly anxious attachment, strongly predicts anxiety and depression from childhood into adulthood (Mikulincer & Shaver, 2016).

Deficits in emotion regulation are a key mechanism linking insecure attachment to anxiety and depression. Unmet attachment-related emotional needs increase vulnerability to these disorders, while neurobiological studies suggest alterations in brain regions involved in emotional processing may contribute to long-term risk (Sicouri & Hudson, 2023; Krause *et al.*, 2016; Fuhrmann *et al.*, 2024). UK cohort evidence indicates that children classified as insecurely attached at 12 months have a three to four-fold increased risk of developing internalising disorders, including anxiety and depression, by age 16 (Dunn *et al.*, 2016).

Parental mental health is also affected by insecure attachment. Mothers of infants with insecure attachments report higher rates of depression and anxiety, which can impair bonding, reinforce insecure attachment patterns and increase demand for both healthcare and social services (Bristol University, 2020; Murray *et al.*, 2010; Feldman, 2012). Insecure parental attachment predicts higher stress, poorer mental health, heighten maternal stress and reduced confidence in parenting abilities, leading to maladaptive coping strategies, which can reduce productivity and increase societal costs (Howe, 2011; Spruit *et al.*, 2019; Liang *et al.*, 2021). These patterns are associated with increased demand for primary care, specialised mental health services, and perinatal support (Spruit *et al.*, 2019; Centre for Mental Health, 2018).

Targeted interventions can mitigate some of these negative impacts. For example, the Building Bonds and Attachment Service (BABS) perinatal programme assessed maternal anxiety, depression, reflective functioning, and attachment among 46 at-risk mothers using validated measures, including the Hospital Anxiety and Depression Scale (HADS), Maternal Antenatal Attachment Scale (MAAS), Maternal Postnatal Attachment Scale (MPAS), and the Parental Reflective Functioning Questionnaire (P-PRFQ). Results showed that 85% of mothers admitted during the antenatal period experienced statistically significant improvements in depression, anxiety, reflective functioning, and maternal attachment (Briscoe, Marsland *et al.*, 2022).

Evidence regarding paternal mental health remains limited. While fathers' psychological wellbeing influences attachment development, there is insufficient high-quality research to quantify the impact on fathers or subsequent family outcomes.

The effects of insecure attachment extend beyond individual wellbeing, with broader social and economic consequences. Emotional difficulties in children and parents increase demand for health, education, and social care services, while potentially reducing workforce participation and productivity (Centre for Mental Health, 2018; Spruit *et al.*, 2019).

Perinatal mental health conditions, affecting a significant proportion of mothers, exacerbate these challenges. In England, around 26% of women experience perinatal mental health difficulties, primarily depression and anxiety (Department of Health and Social Care, 2025). Similar prevalence is reported in Wales (24%) (Welsh Government, 2024), Scotland (20–25%) (NHS Scotland, 2023), and Northern Ireland (18%) (Health and Social Care Board, 2024). Severe mental illnesses, including psychosis, eating disorders, and personality disorders, are less common but are associated with higher service use and poorer outcomes. Black mothers in England are more than twice as likely to be hospitalised for perinatal mental illness compared with white mothers, highlighting persistent inequalities in access and outcomes (Department of Health and Social Care, 2025).

Overall, the emotional and psychological impacts of insecure attachment affect children, parents, families, and society.

Difficulties such as anxiety and depression increase demand for health, education, and social care services, reduce workforce participation, and contribute to significant economic and social costs across the life course.

Costs of anxiety and depression

Childhood anxiety and depression impose substantial costs on individuals, families, and society. Annual societal costs for childhood anxiety disorders are estimated at up to £4,040 per child, while depression costs £705 for sub-clinical cases and £1,960 for clinical cases (Pollard *et al.*, 2023; van Steensel *et al.*, 2023).

Beyond these per-child figures, youth mental health problems have far reaching system level costs. A Centre for Mental Health analysis calculated that mental ill health costs the UK economy around £300 billion annually, including £60.2 billion in direct health and care expenditure and £109.7 billion in lost productivity through staff turnover, presenteeism, and unpaid work (Centre for Mental Health, 2024).

Poor mental health in childhood also undermines educational engagement and long-term economic prospects. Anxiety and depression contribute to persistent school absence, which cost the English school system £1.17 billion in 2023–24 (Centre for Mental Health, 2025). Untreated youth mental disorders are estimated to impose a lifetime economic burden exceeding £1 trillion on the current generation through reduced academic attainment, lower earnings, and increased welfare dependency (Department for Education, 2024; Future Minds Campaign, 2024).

Service provision for childhood mental health further contributes to costs. Community-based Child and Adolescent Mental Health Services (CAMHS) in England cost approximately £3,000 per child per year, while inpatient care averages £100,000 per episode (Centre for Mental Health, 2018). Longitudinal evidence indicates that childhood emotional difficulties increase long-term healthcare use. For example, a UK cohort born in 1970 showed that adolescents with emotional difficulties generated an additional 6,300 GP visits per person by midlife, costing approximately £247,000 per person (LSE, 2023).

In 2023, approximately 20% of children and young people aged 8 to 25 had a probable mental disorder. Specifically, 20.3% of 8 to 16-year-olds, 23.3% of 17 to 19-year-olds, and 21.7% of 20 to 25-year-olds were affected (NHS Digital, 2023). In 2023–24, there were 204,526 new referrals of children aged 17 or under to NHS mental health services for anxiety, more than double the rate prior to the pandemic (Centre for Mental Health, 2025).

The rising prevalence and demand for services suggest that the costs associated with childhood anxiety and depression is likely to continue to grow over time, placing increasing pressure on health, education, and welfare systems.

Adult anxiety and depression remain highly prevalent and costly. Poor adult mental health places a heavy burden on public finances, employers, and households. Centre for Mental Health estimates that mental ill health cost England roughly £300 billion in 2024, this encompasses NHS and social care spending, lost productivity, welfare payments, and unpaid informal care contributions (Cardoso and McHayle, 2024). Employers bear a significant share of these costs through sickness absence, presenteeism, and staff turnover, estimated at around £45 billion annually (Mind, 2024). Mental health-related welfare claims also contribute to expenditure, with one in four new Personal Independence Payment (PIP) awards in 2023 granted for depression or anxiety, representing approximately £1.2 billion in benefits (Mind, 2024). Prescription costs for anti-depressant and anxiolytic medications in primary care totalled around £402 million in 2023 (NHS Business Services Authority, 2024).

In 2023, approximately 20% of UK adults reported experiencing anxiety most or all of the time in the preceding two weeks (Mental Health Foundation, 2023), and in autumn 2022, around 16% of adults aged 16 and over reported moderate to severe depressive symptoms (Office for National Statistics, 2022).

Perinatal mental health difficulties further increase costs. These are estimated at £8.1 billion per birth cohort, with the majority associated with long-term child outcomes (Centre for Mental Health, 2018). In England, integrated care boards invested £212 million in specialised community perinatal mental health services in 2024–25, an £18 million increase from the previous year, and spent a further £58 million on mother and baby units in 2023–24 (Hansard, 2025). In Wales, ring-fenced funding for specialised perinatal mental health support totalled £16.3 million in 2022–23, rising to £17.8 million in 2023–24, covering both community teams and inpatient mother and baby unit provision (Welsh Government, 2024). NHS Scotland allocated £13.2 million to its Perinatal and Infant Mental Health Programme in 2023–24, supporting community-based teams, liaison services, and psychological therapies (NHS Scotland, 2023). In Northern Ireland, Health and Social Care Boards designated £5.7 million for perinatal mental health services in 2023–24, including multi-disciplinary community teams and specialised perinatal clinics (Health and Social Care Board, 2024). These devolved allocations contribute to the broader £8.1 billion annual cost of perinatal mental illness.

Table 6: Estimated costs of anxiety and depression in the UK (2023-2024)

Population group	Cost type	Estimate	Source
Children and young people (8-25)	Societal cost per child	Anxiety: up to £4,040; Depression: £705 (sub-clinical), £1,960 (clinical)	Pollard <i>et al.</i> , 2023; van Steensel <i>et al.</i> , 2023
Children and young people	NHS referrals	204,526 new referrals for anxiety (age ≤ 17)	Centre for Mental Health, 2025
Children and young people	CAMHS costs	£3,000 per child per year; inpatient care ~£100,000 per episode	Centre for Mental Health, 2018
Children and young people	Education system impact	£1.17 billion in 2023-24 due to school absence	Centre for Mental Health, 2025
Children and young people	Lifetime economic burden	>£1 trillion due to reduced attainment, earnings, welfare dependency	Department for Education, 2024; Future Minds Campaign, 2024
Adults	Total economic burden	£300 billion annually in England (healthcare, social care, productivity, welfare)	Centre for Mental Health, 2024
Adults	Employer costs	~£45 billion annually (sickness absence, presenteeism, staff turnover)	Centre for Mental Health, 2024
Adults	Welfare claims (PIP)	~£1.2 billion for depression/anxiety	Centre for Mental Health, 2024
Adults	Prescription costs	£402 million (anti-depressants/anxiolytics)	NHS Business Services Authority, 2024
Perinatal population	Overall cost per birth cohort	£8.1 billion	Centre for Mental Health, 2018
Perinatal population	England – community & mother-baby units	£212 million (community), £58 million (mother-baby units)	Hansard, 2025
Perinatal population	Wales – specialised perinatal services	£16.3-17.8 million	Welsh Government, 2024
Perinatal population	Scotland – perinatal mental health programme	£13.2 million	NHS Scotland, 2023
Perinatal population	Northern Ireland – perinatal mental health services	£5.7 million	Health and Social Care Board, 2024

Personality disorder and self-harm

Disorganised attachment is strongly associated with borderline personality disorder (BPD) and self-harm in adulthood. Longitudinal and clinical studies report markedly higher rates of disorganised attachment among people with BPD and link early relational trauma to later affective dysregulation, identity disturbance and impulsivity characteristic of the disorder (Lyons-Ruth *et al.*, 2019; Schimmenti & Caretti, 2016). Secure attachment with at least one parent or carer can reduce the risk and operate as a protective factor (Fossati *et al.*, 2018).

In the UK, community prevalence estimates for BPD remain around 0.7 to 2%, with substantially higher rates in clinical populations and forensic settings (NICE, 2009; The Royal College of Psychiatrists, 2024). Recent UK analyses and burden studies emphasise the high service needs and societal costs associated with BPD (Leichsenring *et al.*, 2023; national audit findings 2024–25).

Costs of personality disorder and self-harm

UK cost-of-illness data for personality disorder have historically been limited to small-scale or single-site studies, which estimated direct NHS treatment costs but does not fully capture wider societal impacts. In the UK, McCrone *et al.* (2008) estimated that the total societal cost of personality disorders, including BPD, was around £8 billion annually.

More recent burden-of-disease research and national audit outputs offer a more comprehensive picture. In a European modelling study, Leichsenring *et al.* (2023) estimated that the annual societal cost per person with borderline personality disorder (BPD) is approximately €35,000, of which over 60% reflects indirect costs such as lost productivity, social care use and informal caring.

The 2024 National Audit Office review of personality disorder services in England reported that direct NHS expenditure on BPD treatment had reached around £150 million annually. When combined with estimated community social care costs of approximately £600 million and productivity losses and welfare payments of up to £1.5 billion per year, the total annual societal cost of personality disorder in England alone falls between £2.2 billion and £2.5 billion (NAO, 2024). Equivalent patterns of indirect burden are observed in Scotland, Wales and Northern Ireland, where social care reliance and unemployment rates among people with BPD drive comparable per-capita costs.

Importantly, indirect costs from lost earnings, welfare dependence, social care provision and informal support, constitute the majority of this burden, whereas direct NHS treatment costs represent under 10% of the total.

Self-harm is a significant public health concern in the UK, affecting both children and adults. Approximately 10.8% of adults in England report having self-harmed without suicidal intent at some point in their lives, with women (12.6%) more likely than men (8.5%) to report such behaviour (NHS Digital, 2023).

The mean cost of treating a single self-harm episode in a general hospital is estimated at £809 (Carroll *et al.*, 2017). The cost to hospitals in England for general hospital medical and psychiatric care for patients who self-harm is estimated at £162 million per year (Tsiachristas *et al.*, 2017). Beyond direct healthcare costs, the broader societal impact, including lost productivity, welfare reliance, and reduced quality of life, is substantial, with the human and economic costs of self-harm and suicide in the UK estimated at approximately £7.1 billion annually (Centre for Mental Health, 2024).

Table 7: Estimated prevalence, service use, and costs of personality disorder and self-harm in the UK

Measure	Estimate	Source
Total societal cost (UK, historical, personality disorder)	~£8 billion annually	McCrone <i>et al.</i> , 2008
Annual societal cost per person (BPD, Europe)	€35,000 with more than 60% indirect costs (lost productivity, social care, informal care)	Leichsenring <i>et al.</i> , 2023
Direct NHS expenditure (BPD, England)	~£150 million annually	NAO, 2024
Community social care costs (BPD, England)	~£600 million annually	NAO, 2024
Productivity losses and welfare payments (BPD, England)	Up to £1.5 billion annually	NAO, 2024
Total societal cost (BPD, England)	£2.2–2.5 billion annually	NAO, 2024
Indirect vs direct costs (BPD)	Indirect costs >90% of total	NAO, 2024; Leichsenring <i>et al.</i> , 2023
Adult prevalence (self-harm)	10.8% of adults have self-harmed without suicidal intent	NHS Digital, 2023
Gender prevalence (self-harm)	Women 12.6%, men 8.5%	NHS Digital, 2023
Mean hospital treatment cost per episode (self-harm)	£809	Carroll <i>et al.</i> , 2017
Broader societal cost (self-harm and suicide)	~£7.1 billion annually	Centre for Mental Health, 2024

Eating disorders

Attachment insecurity plays a central role in the onset and maintenance of eating disorders, with systematic reviews and recent meta-analyses demonstrating a higher prevalence of insecure attachment among individuals with anorexia nervosa, bulimia nervosa and other disordered eating patterns (Tasca & Balfour, 2023; Keating *et al.*, 2023). Avoidant attachment has been particularly implicated in both anorexia and bulimia, while both anxious and avoidant patterns exacerbate emotion regulation difficulties that sustain maladaptive eating behaviours (Bowlby, 1988; Khosravi, 2020; Skårderud *et al.*, 2023).

Insecure attachment also predicts heightened body dissatisfaction, a key risk factor for the development and perpetuation of eating pathology (Ward *et al.*, 2006). Recent UK reports describe a marked rise in referrals and mounting service pressure for children and young people with eating disorders, prompting calls for a comprehensive national strategy and expanded specialised provision from the Royal College of Psychiatrists (2024) and the APPG on Eating Disorders (2025).

Costs of eating disorders

Approximately 1.25 million people in the UK are affected by eating disorders. Hospital admissions for under-18s have risen sharply, increasing by 90% from 3,524 (2017/18) to 6,713 (2021/22), reflecting growing service demand (Beat Eating Disorders, 2025; Royal College of Psychiatrists, 2023).

Early estimates placed NHS treatment costs at £4.6 billion in 2015, rising to an estimated £9.4 billion annually when including treatment, lost productivity, and related expenses (Beat, 2022; PwC, 2015). More recent analyses by Pro Bono Economics and Beat (2025) estimate the combined societal cost—including NHS expenditure, lost productivity, and informal carer support—at approximately £2.2 billion per year (Pro Bono Economics & Beat, 2025; APPG on Eating Disorders, 2025).

Individuals with eating disorders also incur long-term physical health costs, such as nutritional deficiencies, gastrointestinal complications, and associated co-morbidities, which further add to the fiscal burden (Fraley *et al.*, 2006). Service pressures have continued to escalate into 2024, placing severe strain on specialised teams and workforce capacity (Royal College of Psychiatrists, 2024–25).

Table 8: Estimated prevalence, service use, and costs of eating disorders in the UK

Measure	Estimate	Source
Prevalence	~1.25 million people	Beat Eating Disorders, 2025
Hospital admissions (under-18s)	6,713 in 2021/22 (up 90% from 3,524 in 2017/18)	Beat Eating Disorders, 2025; Royal College of Psychiatrists, 2023
NHS treatment costs (2015)	£4.6 billion	Beat, 2022; PwC, 2015
Combined societal cost	£2.2 billion per year Includes NHS expenditure, lost productivity, informal carer support	Pro Bono Economics & Beat, 2025; APPG on Eating Disorders, 2025
Long-term physical health costs Includes nutritional deficiencies, gastrointestinal complications, co-morbidities	Not quantified	Fraley <i>et al.</i> , 2006
Service pressures (2024) including strain on specialised teams and workforce capacity	Escalating	Royal College of Psychiatrists, 2024–25

Autoimmune, cardiovascular, obesity and metabolic disorders

Secure parent–infant attachment buffers infants against stress by promoting adaptive physiological regulation. In contrast, insecure attachment disrupts stress response systems, leading to elevated cortisol levels, impaired immune function, and chronic low grade inflammation (Gunnar & Quevedo, 2007; Slavich & Irwin, 2014). Dysregulated neuroendocrine–immune pathways in insecurely attached children are marked by higher concentrations of C-reactive protein, which can predict increased susceptibility to cardiovascular disease, stroke, and type 2 diabetes in later life (Slavich & Irwin, 2014).

Behavioural and epidemiological evidence complements these biological findings. Longitudinal UK cohort data show that children with insecure attachment and low maternal sensitivity are 2.45 times more likely to become obese by adolescence compared with securely attached peers (Anderson *et al.*, 2012). Meta-analytic evidence indicates that early insecure attachment is associated with higher body mass index throughout childhood and into adulthood (Scharf & Mears, 2020).

Behavioural mechanisms, including poor dietary self-regulation, further link attachment insecurity to adverse outcomes, with experimental studies showing that children and adults with insecure parental bonds consume significantly more calories under stress than securely attached individuals (Faber & Dubé, 2015).

Taken together, these biological, behavioural, and epidemiological studies suggest that insecure attachment in early life initiates a cascade of stress dysregulation, inflammatory activation, and maladaptive coping behaviours, elevating long-term risk of obesity, metabolic syndrome, and cardiovascular disease (Cicchetti & Toth, 2009; Fuhrmann *et al.*, 2024).

Costs of autoimmune, cardiovascular, obesity and metabolic disorders

The economic burden of key cardiometabolic conditions in the UK is substantial. While multiple factors contribute to these diseases, early life stress and attachment insecurity elevate individual risk, meaning a proportion of these overall costs may be attributable to attachment. Recent UK estimates of annual costs include:

- ◎ Cardiovascular diseases, including heart disease and stroke costs £29 billion annually, comprising £16.6 billion in direct healthcare expenditure and £12.4 billion in productivity losses (British Heart Foundation, 2023).
- ◎ Type 2 diabetes costs £10.7 billion in direct healthcare costs and £3.3 billion in productivity losses (Diabetes UK, 2023).
- ◎ Inflammatory bowel diseases costs over £1 billion per year to the NHS, at roughly £3,000 per patient (Zia *et al.*, 2024).
- ◎ Obesity costs £126 billion annually, when combining £12.6 billion for NHS treatment, £10.5 billion for informal care, £1.2 billion for formal social care, £71.4 billion in reduced quality of life and premature mortality, and £31.0 billion in productivity losses (Frontier Economics, 2025); while the Institute for Fiscal Studies estimates a slightly lower total of £98 billion (Griffith *et al.*, 2023).

Although multiple factors influence these conditions, early life stress and insecure attachment elevate individual risk, meaning a proportion of these diseases' economic burden are attachment attributable.

Health behaviours and public health impacts

Early parent-infant attachment shapes lifetime patterns of lifestyle and health behaviours through intertwined behavioural and psychobiological pathways (Kochanska *et al.*, 2007; McDade *et al.*, 2011). Secure attachment fosters self-regulation and adaptive coping, whereas insecure attachment and low caregiver sensitivity elevate stress reactivity and undermine emotion regulation. These behavioural tendencies operate alongside chronic dysregulation of the hypothalamic-pituitary-adrenal (HPA) stress system, in which early adversity can reset cortisol responses to be excessively high or blunted. Prolonged activation of inflammatory pathways interacts with unhealthy behaviours to heighten long-term cardiometabolic and mental health risks (Slavich & Irwin, 2014; Fuhrmann *et al.*, 2024).

Smoking, alcohol and substance use

Individuals with insecure attachment are more likely to initiate smoking in adolescence and develop nicotine dependence by adulthood, particularly those with anxious attachment patterns who use tobacco to cope with heightened emotional sensitivity (Kochanska *et al.*, 2007).

Insecurely attached young people also exhibit higher rates of hazardous alcohol consumption and illicit substance use. A Scottish cohort study found they were twice as likely to engage in problematic drinking compared with securely attached peers (Smith *et al.*, 2017).

Diet and eating behaviours

Attachment insecurity is associated with maladaptive eating, including emotional overeating and poor dietary choices that persist into adulthood (Bowlby, 1988). UK longitudinal data shows that children with insecure attachment and low maternal sensitivity are 2.45 times more likely to become obese by adolescence than securely attached peers (Anderson *et al.*, 2012). Meta-analytic evidence confirms that early insecure attachment predicts higher body mass index throughout childhood and adulthood (Scharf & Mears, 2020).

Physical activity and sedentary behaviour

Early insecure attachment predicts lower levels of regular exercise and increased sedentary time, compounding risks for obesity and type 2 diabetes (Richards *et al.*, 2016). Attachment orientation further moderates exercise motives, with avoidant individuals less likely to engage for social interaction and anxious individuals exercising primarily for weight management or in response to external recommendations (O'Reilly *et al.*, 2024).

Sexual health and risk taking behaviours

Longitudinal UK research indicates adolescents with insecure attachment are more prone to multiple risky behaviours, including smoking, alcohol misuse, and unsafe sexual activity, even after controlling for maternal depression and socio-economic factors. Early relational adversity was associated with a 23% higher likelihood of engaging in two or more risky behaviours by age 17 (Wong *et al.*, 2022). These patterns reflect enduring difficulties in impulse control and emotion regulation, increasing the risk of later mental and physical health problems (Kochanska *et al.*, 2007; Shore, 2003).

ECONOMIC COSTS OF HEALTH BEHAVIOURS

Smoking, alcohol and substance use costs

Insecure attachment is consistently linked to higher rates of smoking, hazardous alcohol use and illicit substance use. Smoking remains one of the UK's most costly preventable health risks, with annual societal costs of £43.7 billion, comprising £1.82 billion in NHS treatment, £27.6 billion in lost productivity, £13.9 billion in social care and £332 million in fire related costs (Action on Smoking and Health, 2025). Preventing smoking is estimated to save approximately £20,000 per individual in lifetime healthcare and productivity gains (ASH, 2022).

Harmful alcohol use costs around £27 billion annually, including £3.5 billion in NHS care, £11 billion in lost productivity, £6 billion in crime related costs and £1.3 billion in social care (Public Health England, 2016). Illicit drug use imposes an annual societal burden of around £20 billion, covering healthcare, criminal justice and social services (National Audit Office, 2023).

Drug misuse imposes a substantial economic burden on the UK, with total societal costs estimated at approximately £10.7 billion annually. This figure encompasses direct healthcare expenditure for treatment and harm reduction, costs associated with drug related crime, and wider economic impacts such as lost productivity and premature mortality (UK Health Security Agency, 2021).

Diet and eating behaviour costs

Maladaptive coping through emotional overeating and poor dietary choices is more common among those with insecure attachment. Improvements in diet could generate lifetime savings of £5,000 to £7,000 per individual in healthcare costs and productivity gains (ASH, 2022).

Economy wide, poor diet and obesity impose an annual burden of approximately £126 billion on the UK, comprising £12.6 billion in NHS treatment; £10.5 billion in informal, unpaid care; £1.2 billion in formal social care; £31 billion in productivity losses (absenteeism, presenteeism and early mortality); and £71.4 billion in reduced quality of life and premature death (Frontier Economics, 2025). The Institute for Fiscal Studies provides a corroborating estimate of £98 billion per year with £74 billion directly attributable to obesity itself (Griffith *et al.*, 2023). These figures illustrate the multiple cost domains, direct healthcare, social care, informal support, productivity and intangible wellbeing, that stem from diet related weight gain and obesity. (Frontier Economics, 2025; Griffith *et al.*, 2023).

Physical activity and sedentary behaviour costs

Children and adults with insecure attachment engage in less regular exercise and more sedentary behaviour, compounding risks for obesity and type 2 diabetes. Physical inactivity costs the UK approximately £20 billion per year and causes an estimated 37,000 premature deaths, reflecting healthcare treatment of linked conditions as well as absenteeism and reduced productivity (Cardiac Rehabilitation, 2023).

Sexual health and risk taking behaviours costs

Insecure attachment in adolescence predicts greater engagement in risky behaviours, including unsafe sexual activity. This increased risk is particularly pronounced among adolescents who have also experienced early-life adversity, such as poverty or exposure to multiple adverse childhood experiences (Delker *et al.* 2018). UK spending on sexual health services, covering sexually transmitted infections (STIs) testing, treatment and contraception, exceeds £600 million annually, with additional indirect costs from managing STIs, unintended pregnancies and long-term reproductive care (Public Health England, 2020).

Beyond direct healthcare costs, there are substantial indirect expenses related to the management of STIs, unintended pregnancies, and long-term reproductive care. For instance, the lifetime treatment costs for each new case of HIV infection range between £280,000 and £360,000 (Plymouth City Council, 2022). Additionally, unplanned pregnancies impose an estimated annual cost of £193 million in England, encompassing healthcare, social services, and other associated expenses (BMJ Blogs, 2021).

Table 9: Estimated annual UK costs associated with attachment-linked health behaviours

Behaviour / Condition	Estimated annual UK societal cost	Key notes / examples	Source
Smoking	£43.7 bn	Includes NHS treatment, productivity losses, social care, fire related costs	ASH, 2025
Harmful alcohol use	£27 bn	NHS care, lost productivity, crime related costs, social care	Public Health England, 2016
Illicit drug use	£20 bn	Healthcare, criminal justice, social services	NAO, 2023
Maladaptive diet / emotional overeating	£126 bn	NHS treatment, informal/formal care, productivity, reduced quality of life	Frontier Economics, 2025; Griffith <i>et al.</i> , 2023
Physical inactivity	£20 bn	Linked conditions including obesity and type 2 diabetes; ~37,000 premature deaths	Cardiac Rehabilitation, 2023
Risk taking / sexual health	£0.6 bn	STI testing/treatment, contraception, indirect costs	Public Health England, 2020

DEVELOPMENTAL OUTCOMES

Early attachment experiences play a central role in shaping a child's developmental trajectory across cognitive, emotional, social and physical domains. Secure attachment provides a reliable relational environment that supports exploration, learning and adaptive skill development, whereas insecure attachment increases the risk of developmental delay, behavioural difficulties and poorer longer term outcomes (Bowlby, 1988; Thompson, 2008).

This section summarises evidence on the impacts of insecure attachment on developmental milestones, speech, language and communication, school readiness, behavioural difficulties, and the associated the costs, where UK evidence exists.

Developmental milestones

Secure attachment supports cognitive, motor and socio-emotional development by providing consistent, attuned caregiving. Children with secure attachment are more likely to achieve age-appropriate milestones, including independent mobility, early language acquisition and cooperative play, within the expected timeframes (Bowlby, 1988; Thompson, 2008). In contrast, insecure attachment, particularly disorganised or avoidant patterns, is associated with delays in gross and fine motor skills, language development, cognitive processing and social competence. These delays often stem from reduced parental sensitivity, limited opportunities for guided exploration and heightened stress reactivity, which constrain a child's ability to engage confidently with new challenges (van IJzendoorn *et al.*, 2020).

The UK national child development outcomes reporting system, which collects health visitors ASQ-3 data on developmental progress, now publishes local level data on milestone attainment, enabling triangulation of attachment-related developmental risk and informing targeted early support (GOV. UK, 2025).

Early intervention programmes that enhance parental responsiveness, integrate therapeutic support with structured early learning activities and coach parents in responsive interaction have demonstrated significant gains in milestone attainment, especially among high risk groups (Bakermans-Kranenburg *et al.*, 2003; Olds *et al.*, 2014) with secure attachment developing in a context of parental sensitivity and responsive interaction.

Developmental milestone costs

Delays in developmental milestone attainment generate both direct and indirect economic costs. Although the causation of developmental delay is multi-factorial, evidence consistently highlights insecure attachment as an important risk factor, particularly for social, emotional and communication development. Direct costs include developmental assessments, specialised therapies, for example, speech and language therapy, physiotherapy and occupational therapy, and additional multi-disciplinary contacts commissioned by health services and local authorities. Indirect costs accrue through extended special educational needs (SEN) provision, remedial schooling and diminished lifetime earnings owing to lower educational attainment and reduced labour market participation (Petrou & Kupek, 2010).

Programmes designed to enhance milestone attainment typically incur unit costs ranging from £1,500 to £5,000, depending on intervention intensity and duration (Olds *et al.*, 2014). When economic models apply a 10-year time horizon and a 3.5% discount rate, these programmes can reduce subsequent expenditure on remedial education, SEN support, health and social care by 40 to 60%, generating benefit-cost ratios of approximately 3:1 to 7:1 (Heckman *et al.*, 2010; Barnardo's cost briefs, 2024).

Speech, language and communication needs (SLCN)

Early parent responsiveness and attention provide the foundation for speech, language and communication development. Secure attachment builds rich, interactive exchanges and vocabulary growth, whereas insecure attachment and low parental sensitivity reduce both the frequency and quality of language rich interactions. These early relational deficits heighten the risk of delays in expressive and receptive language, restrict vocabulary development and co-occur with socio-emotional difficulties that compound risks for behavioural problems and academic under achievement (Schauwers *et al.*, 2019; Farrant & Zubrick, 2013; Norbury *et al.*, 2016).

Persistent SLCN affects around 10% of UK children, rising to 50% in socio-economically disadvantaged communities, and an estimated two million children experience some degree of difficulty (The Royal College Of Speech & Language Therapists, 2021; Speech and Language UK, 2025). Left unaddressed, these communication delays lead to higher educational costs, increased demand on mental health services and an elevated risk of school exclusion, imposing substantial long-term costs on public services and society (ICAN & The Royal College Of Speech & Language Therapists, 2018).

Service pressures are reported to have intensified, and as of June 2024, over 40,000 children were waiting longer than 12 weeks for routine speech and language therapy (SLT). The number of Education, Health and Care Plans (EHCP) for SLCN rose by 18%, from 78,199 in 2023 to 92,004 in 2024, placing significant strain on early years and school based support (GOV.UK, 2025; Speech and Language UK, 2025).

To address the unmet need, the Early Language Support for Every Child (ELSEC) programme has been allocated £3.4 million to deploy specialised teams in early years settings and primary schools, aiming to identify and support up to 20,000 additional children before difficulties escalate (GOV.UK, 2025).

Speech, language and communication needs (SLCN) costs

Early SLT interventions offer a cost-effective means to mitigate downstream costs. Recommended programmes, typically comprising 12 to 20 therapy sessions, incur direct costs of approximately £1,200 per child and substantially reduce the need for more intensive services later in life (Law *et al.*, 2017). Integrated home-visiting and parent-infant interaction models, which combine responsive caregiving with targeted language support, demonstrate benefit-cost ratios of 3:1 to 7:1 over a ten-year horizon using a 3.5% discount rate (Murray *et al.*, 2010; Barnardo's cost briefs, 2024; Pro Bono Economics, 2025).

Local authority spending on children with identified SLCN remains highly variable and often under-resourced. Annual per-child expenditure ranges from £30 to £292 per child annually, depending on local commissioning arrangements (Children's Commissioner for England, 2019), while private SLT sessions cost £75 to £125 per session (The Royal College Of Speech & Language Therapists, 2023). Service shortfalls contribute to long waits and under delivery relative to recommended intervention levels (GOV.UK, 2025).

Untreated SLCN also drives significant indirect costs. Children with ongoing language delays frequently require extended special educational needs support. High needs funding for SEN in England reached nearly £11 billion in 2023–24, with SLCN among the fastest growing categories for Education, Health and Care Plans (IFS, 2024). Language deficits correlate with literacy challenges, lower academic attainment and reduced lifetime earnings, productivity losses and welfare dependency (Farrant & Zubrick, 2013; ICAN and the Royal College of Speech and Language Therapists, 2018). Co-occurring socio-emotional difficulties further escalate demand for mental health services and school based counselling, in addition to the NHS and local authority expenditure.

School readiness

Early attachment experiences play a pivotal role in preparing children for school by shaping the cognitive, social and emotional skills essential for classroom engagement. Secure attachment provides a reliable environment in which children develop self-regulation, attention control and early problem solving abilities, enabling proactive participation in routines and collaborative learning (Bernier *et al.*, 2020; Denham *et al.*, 2012; Sroufe, 2005). Conversely, children with insecure attachment often exhibit poorer emotional regulation, reduced persistence and difficulties in peer interaction, which impede engagement in literacy and numeracy activities and increase reliance on targeted support such as small group teaching or specialised services (Mares, S., McMahon, C., 2020; Howes *et al.*, 2011; Luthar & Cicchetti, 2000).

Recent UK data shows the scale of school readiness gaps among vulnerable groups. A study found that one in three reception age children lacked the developmental skills expected for school entry, rising to 45% among those eligible for free school meals (University of Leeds, 2024). National briefings corroborate these findings, reporting sizeable readiness deficits at reception concentrated in areas with high proportions of children with special educational needs and disabilities (SEND) (Institute for Government, 2025; GOV.UK, 2025).

Early cognitive or language delays and heightened anxiety, both associated with insecure attachment and early adversity, further undermine academic progress and social integration, establishing trajectories that can constrain long-term educational attainment and economic opportunity (Shonkoff & Phillips, 2000; Luby *et al.*, 2013; Pianta & Allen, 2008; Heckman *et al.*, 2010).

Longitudinal analyses show that attachment focused programmes delivered in the pre-school years not only enhance school readiness but also yield sustained benefits in literacy, numeracy and social-emotional competence, reinforcing the case for early relational investment as a driver of educational success.

School readiness costs

High quality early childhood programmes that integrate socio-emotional and cognitive skill development have demonstrated substantial improvements in school readiness. The Incredible Years programme, for example, reduces behavioural difficulties and enhances social skills in disadvantaged communities (Edwards *et al.*, 2007), while parent-infant psychotherapy strengthens emotional regulation and attention control, leading to greater classroom engagement (Barlow *et al.*, 2016). Early language initiatives, such as the Nuffield Early Language Intervention (NELI) and Early Talk Boost, deliver significant gains in oral language and vocabulary, directly bolstering readiness for formal schooling (West *et al.*, 2021; Speech and Language UK, 2025).

Programme delivery costs typically range from £2,000 to £6,000 per child per year, depending on intensity, setting and staffing levels, as evidenced by the Effective Provision of Pre-School Education (EPPE) study (Sylva *et al.*, 2014). Economic evaluations report benefit-cost ratios between 3:1 and 7:1 over a ten year horizon when using a 3.5 % discount rate, reflecting downstream savings through reduced need for remedial literacy and numeracy interventions, small group teaching and specialised SEN services (Heckman *et al.*, 2010; Pro Bono Economics, 2025).

The National Literacy Trust estimates that insufficient early year's language provision in England costs approximately £830 million per school year group, including £5,300 in potential lifetime earnings lost per child, as well as additional education, social, and welfare costs (National Literacy Trust, 2024).

Children who start school behind their peers incur significant direct costs to schools and local authorities, including funding for targeted teaching interventions, additional pastoral support, specialised educational provision, and, in some cases, counselling or speech and language therapy. Some families may incur private costs, such as tutoring or therapy services, which can range depending on intensity and duration. Economic modelling has estimated that children who experience early educational disadvantage may generate losses of approximately £9,000 per individual over a lifetime due to reduced productivity and income (Heckman, 2006; Belfield *et al.*, 2006). Attachment-related socio-emotional and behavioural difficulties further exacerbate resource demands by requiring higher staff-to-child ratios, additional behavioural support, and increased access to mental health services in both early years and school settings.

Behavioural difficulties

Strong maternal and parent-infant attachment in infancy consistently predicts fewer behavioural difficulties throughout early and middle childhood. In UK cohorts, higher maternal attachment scores at nine months are linked to lower Strengths and Difficulties Questionnaire scores at age three, even after adjusting for socio-economic and demographic factors (Parent-Infant Foundation, 2025).

The Growing Up in Scotland study also found that weaker mother-infant attachment at ten months correlates with elevated conduct and attention problems between ages seven and eleven, with these associations persisting for boys beyond age twelve (Scheel Rasmussen *et al.*, 2025). Likewise, children placed in substitute care before six months who form secure attachments by age three exhibit significantly fewer behavioural issues than their insecurely attached peers (Dozier *et al.*, 2014).

Insecure attachment is further associated with higher rates of impulsivity, attention deficits and conduct disorders. UK research reports that insecurely attached children display increased aggression, defiance and hyperactivity, and are over represented in social care caseloads and among those with Education, Health and Care Plans (EHCP) for social, emotional and mental health (SEMH) needs (Kestenbaum *et al.*, 1990; NSPCC, 2015; Department for Education, 2018).

These early socio-emotional challenges can undermine classroom participation and learning, often necessitating additional pastoral and specialised educational support.

Attachment-related socio-emotional and behavioural difficulties further exacerbate resource demands by requiring higher staff-to-child ratios, additional behavioural support, and increased access to mental health services in both early years and school settings, with some studies estimating the cost of unresolved behavioural problems in childhood can exceed £70,000 per child over the lifetime, rising to £225,000 when wider societal costs are included (Bonin *et al.*, 2011).

Attachment quality in infancy also exerts a lasting influence on adolescent risk taking behaviours. Analyses of the Millennium Cohort Study show that lower maternal attachment scores predict higher rates of substance use, anti-social behaviour and unsafe sexual practices in adolescence, with maternal depression acting as a partial mediator (Bélanger *et al.*, 2021; Reyes, Hargreaves & Creese, 2021). These findings demonstrate the protective role of secure early relationships in building emotional regulation, resilience and pro-social development, thereby reducing engagement in behaviours that carry significant long-term health and social costs (Bowlby, 1997; Howe, 2011).

Costs of behavioural difficulties

Behavioural difficulties in childhood and adolescence generate substantial costs for families, public services and society. Children with severe anti-social behaviour incur mean annual costs of nearly £6,000 each, predominantly borne by families through lost income and additional care needs, while service related expenditure on education, health and voluntary sector support averages around £1,277 per child per year, with schools and child mental health services absorbing the largest share (Romeo, Knapp & Scott, 2006; Scott *et al.*, 2001).

Lifetime cost estimates for conduct disorder range from £75,000 to £260,000 per person, depending on severity and persistence, and reflect cumulative expenses across education, health, social care and the justice system (Knapp, Scott & Davies, 2002; Knapp *et al.*, 2011).

At the system level, the Early Intervention Foundation reports roughly £1.6 billion spent annually on child behavioural services, with late intervention costs reaching nearly £17 billion per year in England and Wales, covering crime, child protection, welfare benefits, health services and education (EIF, 2015; EIF, 2016).



Table 10: Estimated annual UK costs associated with developmental outcomes

Domain	Cost / Estimate	Source
Developmental milestones Delays in motor, cognitive, social skills	Early intervention programmes cost £1,500–£5,000 per child	Olds <i>et al.</i> , 2014
	10 year horizon shows 40–60% savings on remedial education, SEN, health & social care	Heckman <i>et al.</i> , 2010
	Benefit–cost ratios 3:1–7:1	Barnardo's cost briefs, 2024
	Indirect costs from reduced lifetime earnings	Petrou & Kupek, 2010
Speech, Language and Communication Needs (SLCN) Delays in expressive/receptive language, socio-emotional difficulties	Early SLT: £1,200 per child	Law <i>et al.</i> , 2017
	Benefit–cost ratio 3:1–7:1 over ten years	Murray <i>et al.</i> , 2010; Barnardo's cost briefs, 2024
	Local authority spending £30–£292 per child/year	Children's Commissioner for England, 2019
	Private SLT sessions £75–£125/session	The Royal College Of Speech & Language Therapists, 2023
	EHCPs for SLCN rose to 92,004 in 2024	GOV.UK, 2025; Speech and Language UK, 2025
	High needs SEN funding nearly £11bn in 2023–24	IFS, 2024
School readiness Poor emotional regulation, reduced persistence, peer difficulties	Programme delivery £2,000–£6,000 per child/year	Sylva <i>et al.</i> , 2014
	Benefit–cost ratios 3:1–7:1	Heckman <i>et al.</i> , 2010; Pro Bono Economics, 2025
	Early language initiatives (NELI, Early Talk Boost) improve literacy, vocabulary, and school readiness	West <i>et al.</i> , 2021; Speech and Language UK, 2025
	Parent–infant psychotherapy strengthens emotional regulation and attention	Barlow <i>et al.</i> , 2016
Behavioural difficulties Increased conduct, attention, aggression, hyperactivity; higher adolescent risk taking	Severe anti-social behaviour: mean £6,000/year per child	Romeo, Knapp & Scott, 2006
	Service costs for education, health, voluntary sector support: £1,277/year per child	Scott <i>et al.</i> , 2001
	Lifetime costs of conduct disorder £75,000–£260,000 per person	Knapp, Scott & Davies, 2002; Knapp <i>et al.</i> , 2011
	System level child behavioural services £1.6bn/year	EIF, 2015
	Late intervention costs up to £17bn/year in England & Wales	EIF, 2016
	Maternal attachment scores predict lower adolescent risk taking	Bélanger <i>et al.</i> , 2021; Reyes, Hargreaves & Creese, 2021

EDUCATION, EMPLOYMENT, AND PRODUCTIVITY

Early attachment plays a critical role in the development of skills that underpin educational attainment, employability and workforce participation. Secure parent–infant relationships build self-regulation, resilience and problem solving, supporting academic achievement and long-term employability. In contrast, insecure attachment and exposure to early adversity are associated with lower educational outcomes, unstable employment trajectories and reduced lifetime earnings. These individual level effects aggregate to wider implications for national productivity and economic growth. This section summarises pathways through which early attachment influences education, employment and economic participation.

Educational impacts

Early parent–infant attachment influences children’s cognitive, language and social-emotional development, which are domains that collectively underpin formal learning. Secure attachment supports healthy brain architecture, fostering executive functions such as attentional control, self-regulation and early problem solving. These capacities enable children to engage proactively in classroom routines, collaborative tasks and peer interactions (Denham *et al.*, 2012; Sroufe, 2005). In contrast, neglect or inconsistent caregiving associated with insecure attachment can alter neural connectivity in regions governing emotion regulation and language processing, limiting children’s ability to benefit from early learning opportunities (Shonkoff & Phillips, 2000; Huttenlocher *et al.*, 2007; Farrant & Zubrick, 2013). Robust early language, communication and socio-emotional skills are strong predictors of academic progress and later occupational outcomes (Education Policy Institute, 2023; Heckman *et al.*, 2010).

UK longitudinal evidence reinforces these associations. An analysis of the Millennium Cohort Study found that children classified as insecurely attached at nine months scored significantly lower on standardised cognitive assessments at age five, with attainment gaps that persisted through primary school (Flouri *et al.*, 2016). Furthermore, the Avon Longitudinal Study of Parents and Children (ALSPAC) reported that securely attached children navigated school transitions more successfully, maintaining motivation and peer relationships (Flouri *et al.*, 2016).

Department for Education data shows that children with social, emotional and mental health needs, among whom insecure attachment is over represented, experience higher rates of absenteeism, school exclusion and lower attainment at key stages two and four (Department for Education, 2018). Looked after children, who often have disrupted early attachments, exhibit attainment gaps of 25 to 30% at key stage two and around 25% at key stage four compared with their peers, driven in part by elevated SEND and socio-emotional difficulties (Berridge, 2020).

While these studies demonstrate the critical role of early attachment for educational trajectories, further UK research is required to isolate the causal contribution of attachment quality, separate from co-occurring adversities.

Educational outcomes and economic impacts of early attachment

Strengthening attachment in early childhood improves educational outcomes and generates substantial economic returns. Attachment focused interventions that enhance early emotional and behavioural development therefore have the potential to produce significant long-term benefits, as emotionally stable children are more likely to excel academically and succeed in the labour market.

Lower educational attainment imposes costs on both individuals and society. Individuals with lower qualifications tend to earn less over their lifetime, increasing reliance on welfare and reducing tax contributions (Institute for Fiscal Studies, 2023).

Conservative economic models estimate that targeted literacy and numeracy interventions and specialised provision cost on average around £3,200 per child per year, based on Department for Education school funding technical notes (2024). Educational inequalities linked to insecure attachment also contribute to broader economic inefficiencies.

Analysis by the Institute for Fiscal Studies shows that adults with lower qualifications face higher unemployment rates, lower wages and increased reliance on welfare benefits, leading to reduced tax revenues and higher social security expenditure (Institute for Fiscal Studies, 2023).

Evidence consistently shows that insecure attachment increases the need for additional educational support, including remedial teaching, specialised provision, and in school mental health interventions. These carry both direct service costs and indirect costs through lost learning and family time. Insecurely attached children are also more likely to leave school with no or low qualifications, reducing employment prospects and lifetime earnings (King's College London, 2023; LSE Research Online, 2023).

Despite these clear links, few studies isolate the direct educational costs of insecure attachment.

Employment and economic participation

Secure early attachment and sensitive parenting establish the socio-emotional foundations that underpin lifelong economic participation. Children who develop strong parent–infant bonds acquire self-regulation, problem solving and resilience skills, which are shown to facilitate educational progress and, in turn, stable employment and higher productivity in adulthood (Heckman & Masterov, 2007; OECD, 2024).

UK economic modelling by Knapp, McDaid and Parsonage (2011) estimates that relational investment in the early years yields higher lifetime earnings for individuals who benefit from stable caregiving compared with peers exposed to adversity or insecure attachment.

Longitudinal analyses from cohorts such as the Millennium Cohort Study and ALSPAC confirm that secure attachment predicts better academic achievement, fewer behavioural difficulties and stronger mental health, each a key determinant of employability (Flouri *et al.*, 2016).

Parental attachment quality likewise influences parents' own workforce participation. Adults with insecure attachment patterns face elevated risks of anxiety, depression and chronic stress, which impair work functioning through increased sickness absence, presenteeism and job turnover (Madigan *et al.*, 2019; Murray *et al.*, 2010; Office for National Statistics, 2024).

These mental health related productivity losses also impose substantial costs on employers and the economy, reinforcing the case for parent focused attachment support as an investment in both child and adult economic wellbeing (Mind, 2024; Mental Health Foundation, 2024).

Labour market outcomes, welfare dependence and economic costs

Maternal sensitivity, a key driver of secure attachment, predicts better educational attainment, social competence, and earnings at age 32. Longitudinal analyses attribute annual returns of 7 to 10% to early relational interventions, equivalent to hundreds of thousands of pounds in additional productivity per individual (Raby *et al.*, 2021; Heckman *et al.*, 2010). While UK longitudinal analyses indicate that individuals exposed to neglect or maltreatment in childhood incur 10 to 20% lower lifetime earnings and are more likely to experience long-term unemployment or welfare dependence compared with securely attached peers (Pereira *et al.*, 2016; NSPCC & IFS, 2017).

Improving a child's Strengths and Difficulties Questionnaire (SDQ) score at age three by one standard deviation is estimated to yield around £8,880 (2024 prices), primarily through gains in future earnings and employment (Paull & Xu, 2017; Heckman *et al.*, 2010).

It is well evidenced that insecure early attachment is associated with lower educational attainment, reduced employability, and unstable labour market participation.

Programme evaluations, such as Sure Start, demonstrate that every £1 invested can generate £2.05 in benefits through higher lifetime earnings and reduced public expenditure (Institute for Fiscal Studies, 2025). While economic modelling by the Early Intervention Foundation and the Royal Foundation demonstrates that targeted investment in parent-infant support can substantially reduce downstream public expenditure and improve lifetime outcomes (EIF, 2016; Royal Foundation, 2024).

These individual disadvantages can scale up to substantial public sector and macroeconomic costs. In 2024/25, the UK allocated £87.8 billion to Universal Credit, £41.4 billion to disability benefits, and £19.9 billion to other working age support payments (Office for Budget Responsibility, 2024). The Work Foundation's Insecure Work Index reports that 6.8 million UK workers face severe job insecurity, sustaining an average annual financial penalty of £3,276, while one in five earn below the Living Wage (Lancaster University/Work Foundation, 2024; Living Wage Foundation, 2023).

The Social Mobility Commission reports that the UK's lack of social mobility costs approximately £19 billion annually in GDP growth, reflecting the difficulties faced by individuals from lower socio-economic backgrounds in securing higher paying employment (Social Mobility Commission, 2024).

The Royal Foundation Business Taskforce for Early Childhood estimates that under investing in early attachment and relational support represents a missed economic opportunity of up to £45.5 billion annually, when remedial service costs and lost productivity are combined (Royal Foundation, 2024).

Despite robust associations, few UK studies isolate the causal impact of attachment quality on adult labour market outcomes.



Table 11: Economic impacts of early attachment on education, employment, and productivity

Domain	Cost / Return estimate	Source
Improvement in SDQ score (age 3, 1 SD)	£8,880 per child (2024 prices), primarily via future earnings	Paull & Xu, 2017; Heckman <i>et al.</i> , 2010
Early relational interventions (maternal sensitivity)	7–10% annual return in productivity; hundreds of thousands of £ per individual	Raby <i>et al.</i> , 2021; Heckman <i>et al.</i> , 2010
Literacy & numeracy / specialised provision	£3,200 per child per year (conservative estimate)	Department for Education, 2024
Sure Start / early attachment programmes	£1 invested → £2.05 in returns	Institute for Fiscal Studies, 2025
Lifetime earnings reduction from childhood neglect/maltreatment	10–20% lower lifetime earnings	Pereira <i>et al.</i> , 2016; NSPCC & IFS, 2017
Public expenditure on working age support (2024/25)	Universal Credit £87.8bn; disability benefits £41.4bn; other support £19.9bn	Office for Budget Responsibility, 2024
Insecure work / job insecurity	6.8 million workers affected; £3,276 annual financial penalty; 1 in 5 earn below Living Wage	Lancaster University/Work Foundation, 2024; Living Wage Foundation, 2023
National GDP loss from low social mobility	£19 billion annually	Social Mobility Commission, 2024
Missed economic opportunity from under investment in early attachment	Up to £45.5 billion annually	Royal Foundation, 2024
Targeted parent-infant support programmes	Substantial reductions in downstream public expenditure; improved lifetime outcomes	EIF, 2016; Royal Foundation, 2024

SOCIAL, FAMILY, AND COMMUNITY IMPACTS

Early attachment experiences extend beyond individual outcomes to shape social relationships, family functioning and community wellbeing. These patterns influence social participation, informal support networks and local resilience. This section outlines the social, family, and community impacts of insecure attachment, and summarises associated economic consequences in the UK.

Relationships and family life

Insecure attachment patterns, originating in early childhood, can significantly affect interpersonal relationships, social networks and family dynamics across the life course. Secure early attachment is associated with more positive adult relationships, greater trust and improved social functioning, whereas insecure attachment increases vulnerability to relational difficulties, social isolation and reduced life satisfaction (Mikulincer & Shaver, 2016).

Attachment style influences the formation and quality of relationships over time. Individuals with insecure attachment may struggle to establish and maintain close relationships, in turn reducing access to supportive networks and increasing reliance on maladaptive coping strategies, such as problematic online social use (Demircioglu, 2020). Different insecure subtypes produce distinct relational patterns; for example, anxiously attached individuals often seek heightened reassurance, avoidantly attached individuals tend to withdraw from intimacy, and disorganised patterns are associated with severe trust issues and relational instability (Hazan & Shaver, 1987; Mikulincer & Shaver, 2016).

These relational difficulties can compromise emotional wellbeing and reduce engagement with formal support services, particularly where individuals face barriers such as low self-esteem, fear of judgement or negative prior experiences (Howe, 2011).

Children exposed to toxic stress or Adverse Childhood Experiences (ACEs) may have impaired skill development in the domains of behaviour, social-emotional, and language and communication, which can result in potential difficulties throughout the lifespan in social interactions, including the accumulation of negative peer relationships (Middlesex-London Health Unit, 2023).

Adults with histories of insecure attachment themselves may struggle to provide consistent, sensitive care to their children, perpetuating intergenerational cycles of relational insecurity and increasing the risk of emotional and behavioural difficulties in the next generation (Van IJzendoorn & Bakermans-Kranenburg, 2019; Bernard *et al.*, 2012).

Costs of relational difficulties

Relational difficulties linked to insecure attachment generate substantial economic and societal costs. These include both direct costs, such as increased demand for mental health services, counselling and social care, and indirect costs, including reduced productivity, sickness absence, lower lifetime earnings, and additional educational support for children affected by relational or behavioural challenges (Feeney & Collins, 2015; Allen *et al.*, 2007; Layte *et al.*, 2010).

Individuals with insecure attachment are more likely to require intensive support from health, education and social care systems. Higher rates of relationship breakdown, including divorce and separation, are associated with insecure attachment patterns, contributing to increased reliance on benefits, housing support and healthcare services (McCrone *et al.*, 2008). The Relationships Foundation (2022) estimates that the annual fiscal cost of family breakdown in the UK is approximately £51 billion, encompassing public spending across welfare, health, housing and justice sectors (Relationships Foundation, 2022).

Children affected by relational instability often require additional educational support and are at increased risk of school exclusion, youth offending and care system involvement. These outcomes carry long-term costs for public services and reduce lifetime opportunities. Analyses by Van IJzendoorn and Bakermans-Kranenburg (2019) highlight how insecure attachment can perpetuate cycles of disadvantage, with parents struggling to provide stable care and children more likely to develop emotional and behavioural difficulties requiring multi agency intervention.

Evidence from national datasets supports these findings. Office for National Statistics (ONS) household statistics show increased benefit receipt among single parent and disrupted households (ONS, 2023). King's Fund and NHS publications document rising adult social care expenditure linked to mental health and relational distress (King's Fund, 2022; NHS England, 2023). NSPCC and Institute for Fiscal Studies (IFS) analyses quantify the costs of child maltreatment and household adversity (NSPCC, 2022; IFS, 2023), while Ministry of Justice and Youth Justice Board statistics highlight the over representation of care experienced and at-risk cohorts in the justice system (MoJ, 2023; YJB, 2023).

Together, these sources demonstrate the wide ranging fiscal and societal impacts of relational difficulties rooted in insecure attachment.

Intergenerational impacts

Early attachment experiences can have profound intergenerational effects, shaping parenting practices, family functioning and the social and emotional development of subsequent generations. Adults who experienced secure early relationships are more likely to respond sensitively to their own children, building secure attachment patterns and promoting optimal developmental trajectories (Fonagy *et al.*, 1991; Berlin *et al.*, 2008). Conversely, insecure or disorganised attachment in childhood can perpetuate cycles of adversity, contributing to maladaptive parenting, disrupted family relationships and increased risk of neglect or maltreatment (Belsky *et al.*, 2005; Lyons-Ruth *et al.*, 2013).

Parents with histories of insecure attachment are more likely to experience difficulties with emotional regulation, heightened stress responses and lower relationship satisfaction. These factors can affect the quality of caregiving and increase the likelihood of insecure attachment in their children (Bakermans-Kranenburg *et al.*, 2003; Madigan *et al.*, 2019). Social isolation and reduced access to support further exacerbate these challenges, creating a cycle of disadvantage that can persist across generations (Bell and McMillin, 2022).

Evidence from UK longitudinal studies highlights the persistence of these intergenerational effects. Analysis of the Avon Longitudinal Study of Parents and Children (ALSPAC) found that maternal attachment quality at nine months predicted child behavioural outcomes at age seven, including social competence and emotional regulation, even after controlling for socio-economic factors (Flouri *et al.*, 2016).

Research using the Growing Up in Scotland dataset shows that maternal adverse childhood experiences (ACEs) predict adolescent behavioural problems, mediated by the quality of mother-child attachment and maternal controlling parenting behaviours (Shi, Xie and MacBeth, 2023). Parenting stress has also been identified as a significant factor in the intergenerational continuity of childhood adversity, particularly among teenage mothers (Miller *et al.*, 2023; Steele *et al.*, 2011).

Intergenerational costs

The intergenerational transmission of insecure attachment and early adversity carries substantial economic implications for families, public services and society more broadly.

Children raised in environments characterised by insecure attachment are at heightened risk of emotional, behavioural and cognitive difficulties. These challenges increase demand for education support, health services and social care throughout childhood and adolescence (Belsky *et al.*, 2005; Knapp *et al.*, 2011). Difficulties often persist into adulthood, affecting employability, income and social functioning, and perpetuating cycles of disadvantage across generations (Bynner and Joshi, 2002; Flouri *et al.*, 2016). Families affected by intergenerational disadvantage are more likely to require child protection interventions, housing support and health services, generating substantial cumulative costs for public services (Department for Education, 2020; Kelly *et al.*, 2017).

Analysis of the Millennium Cohort Study shows that children whose parents experienced insecure attachment or early adversity are more likely to develop socio-emotional difficulties, require additional educational support and experience unemployment in adulthood (Joshi and Fitzsimons, 2016). ALSPAC data similarly indicate that parental stress, poor mental health and insecure attachment increase the likelihood of offspring requiring health, social care and educational interventions, with corresponding financial implications for public services (Golding *et al.*, 2001; Flouri *et al.*, 2016).

Specific intervention studies highlight the potential for cost savings by breaking intergenerational cycles. Programmes such as the Sure Start Early Years initiative and targeted home visiting interventions for high risk families have demonstrated improvements in parental and child functioning, reduced reliance on welfare, enhanced educational attainment and supported later employment (Institute for Fiscal Studies, 2025; Olds *et al.*, 2007). The Sure Start programme, for example, achieved £2.05 in benefits for every £1 invested, primarily through reductions in future public expenditure on education, health and social care (Institute for Fiscal Studies, 2025).

Despite these insights, evidence gaps remain. Few UK studies have directly quantified the lifetime economic costs of intergenerational insecure attachment, and many estimates rely on extrapolation from broader adversity data or US-based studies (Paull and Xu, 2017). There is also limited evaluation of long-term cost savings from attachment-focused interventions across multiple generations.

Civic engagement and community participation

Secure childhood attachment fosters the development of social competence, empathy, trust and a sense of responsibility, supporting positive civic engagement such as volunteering, community involvement and adherence to civic norms (Sroufe *et al.*, 2005; Kokkinos *et al.*, 2019). In contrast, insecure attachment is associated with social withdrawal, lower interpersonal trust and difficulties in forming and maintaining community relationships, which can reduce social cohesion and local resilience (Fearon *et al.*, 2010; Shonkoff and Phillips, 2000).

Children and adolescents with insecure attachment are more likely to be disengaged from social institutions and to participate less in collective activities, weakening the informal support networks that underpin community wellbeing (Flouri *et al.*, 2016). Reduced participation undermines social capital and collective efficacy, increasing the risk that individuals lack access to local resources in times of need (Bramley *et al.*, 2015; LSE Cities, 2019). Adults with histories of insecure attachment are also less likely to volunteer or take part in local decision making, reducing community participation and constraining opportunities for mutual support (Putnam, 2000; Flouri *et al.*, 2016).

Social alienation linked to insecure attachment correlates with greater vulnerability to anti-social behaviour, substance misuse and exclusionary pathways, which in turn drives demand on policing, youth services and preventative programmes (Ogilvie, 2014; Papalia and Widom, 2023).

Economic costs of reduced civic engagement

Reduced volunteering and community participation lower the supply of informal support and increase reliance on statutory services, and limit the provision of informal support services, increasing reliance on formal welfare systems and public services (National Council for Voluntary Organisations, 2022). For example, in the UK, the economic value of volunteering is estimated at £23 billion annually, reflecting both the contribution of unpaid labour and the social benefits of community engagement (National Council for Voluntary Organisations, 2022). The loss of this informal capacity would increase direct public spending on service provision (Department for Culture, Media and Sport, 2023; National Council for Voluntary Organisations, 2022).

Reduced civic engagement also undermines place based resilience and local economic activity, with consequences for neighbourhood recovery after shocks and for community safety (OECD, 2024). Social isolation and weaker informal support networks are associated with higher rates of service use and poorer outcomes, generating costs for health, social care and criminal justice systems (Bramley *et al.*, 2015; LSE Cities, 2019).

CHILD PROTECTION, HOUSING AND HOMELESSNESS

Care-experienced children and those referred to social services are disproportionately likely to have experienced early relational adversity. National statistics show elevated representation of care-experienced children in social care and youth justice cohorts and higher rates of special educational needs, mental health referrals and housing instability among these groups.

Housing instability and benefit dependence further erode family resilience and increase demand on local services. Social isolation and reduced informal support networks diminish household and neighbourhood resilience, increasing reliance on statutory services and reducing community wellbeing.

Child protection and social care

Insecure attachment in early life is strongly associated with increased involvement in child protection and social care systems, and as many as 80% of children who have experienced maltreatment have a disorganised attachment (NICE, 2015). Children who experience disrupted or insecure early relationships are more likely to develop behavioural difficulties, emotional dysregulation and social challenges, increasing the likelihood of referral to social services, child protection investigations and placement in foster care or residential care (Bywaters *et al.*, 2015; Munro, 2011). Care experienced children, often with histories of neglect or inconsistent caregiving, are disproportionately represented among those requiring statutory intervention (Department for Education, 2023).

Disrupted or insecure attachments can also affect children's educational engagement and mental health, further increasing the risk of social care involvement. Children with attachment-related difficulties may exhibit conduct problems, reduced empathy and emotional dysregulation, which contribute to school exclusion, poor peer relationships and increased demand for specialised support (Biehal *et al.*, 2010; Sinclair *et al.*, 2019). Early adversity combined with insecure attachment is therefore a key risk factor for both initial and repeated engagement with child protection systems.

Parent-infant relationship programmes focusing on high risk families demonstrate measurable safeguarding impacts, including reduced out-of-home placements and child protection escalations. For example, a UK attachment therapy project, the Norfolk Parent-Infant Mental Health Attachment Project (PRIMAP), reported that 85.4% of families with babies "at the edge of care" were enabled to remain or reunite with their child, compared with a national average of around 50% for similar cases (Parent-Infant Foundation, 2022).

Costs of child protection and social care

The cost of child protection and social care in the UK is substantial and escalating. In 2023–24, the average annual cost of a residential care placement for a child in England was £318,400, up from £239,800 in 2019–20. This equates to a national expenditure of £3.1 billion on residential care, a significant increase from £1.6 billion four years earlier (National Audit Office, 2025).

In England, fostering allowances typically range from £24,500 to £26,676 annually, depending on the child's age and the foster carer's experience (Fostering People, 2025). These figures often exclude additional expenses such as training, administrative support and respite care, which can further increase the overall cost of fostering.

The economic impact is further exacerbated by the prevalence of insecure attachment among children in care. Children with insecure attachment histories are more likely to experience multiple placements, leading to increased costs associated with each transition (Sinclair *et al.*, 2019). Placement instability not only affects the child's wellbeing but also necessitates additional resources to manage the complexities of their care.

Financial pressures on local authorities are compounded by a significant rise in child protection investigations. In the year ending 31 March 2023, there were 225,400 child protection investigations in England (Department for Education, 2023). Each investigation incurs costs related to staffing, administrative processes and legal proceedings. Court proceedings linked to child protection also contribute to escalating costs.

The combination of high residential care costs, fostering allowances, increased child protection investigations and court fees places the system under considerable strain. Indirect costs extend beyond social care to healthcare, education and the criminal justice system. Insecurely attached children are at higher risk of mental health difficulties, behavioural problems and poor educational attainment, which can lead to increased use of specialised services and future involvement with the justice system (Biehal *et al.*, 2010; Bywaters *et al.*, 2015). These downstream effects compound lifetime costs to public services while reducing economic participation and long-term earnings.

Housing and homelessness

Insecure attachment and early relational instability increase the likelihood of family conflict, unstable transitions to independence and weaker informal housing support, all of which elevate the risk of housing instability and homelessness in adolescence and early adulthood (Fitzpatrick *et al.*, 2019; Mullins *et al.*, 2020). Care experienced young people, who are disproportionately likely to have experienced early attachment disruption, face increased rates of tenancy breakdown, temporary accommodation use and rough sleeping during the transition to adulthood (Bywaters *et al.*, 2015). Attachment-related trauma, alongside co-occurring mental health and substance misuse problems, further compounds vulnerability to housing instability (Lewer *et al.*, 2020; Aldridge *et al.*, 2021).

Housing and homelessness costs

National statistics and recent sector analyses provide conservative cost baselines for housing instability. Official releases report record levels of households in temporary accommodation and sustained pressure on local authority homelessness budgets. In 2023/24, UK local authorities spent over £3 billion on homelessness services, with a significant proportion allocated to temporary accommodation (National Audit Office, 2024; Department for Levelling Up, Housing and Communities, 2024).

Costs vary by region, but prolonged placements in temporary accommodation typically cost local authorities between £20,000 and £25,000 per household per year (Shelter, 2024; National Audit Office, 2024).

Targeted support for care leavers and individuals with complex needs can exceed £30,000 annually per person, particularly where wraparound services or specialised housing are required (Institute for Government, 2023).

Homelessness and housing instability are associated with increased healthcare utilisation and poorer health outcomes. People experiencing homelessness record substantially higher NHS usage, with per person costs significantly exceeding those of the general population (Aldridge *et al.*, 2021). Indirect economic consequences include reduced employment, lower lifetime earnings and greater reliance on welfare benefits, concentrating fiscal burdens across local government, the Department for Work and Pensions and health services (Bramley *et al.*, 2019).

Economic evaluations of preventative relational and housing support show promising returns. Targeted early intervention and transition support programmes for care leavers and at risk households demonstrate cost avoidance by reducing episodes of crisis accommodation and associated service use. Conservative estimates suggest potential returns of £2 to £5 for every £1 invested, depending on outcome measures and time horizon (Crisis, 2021; Knapp *et al.*, 2011).

Table 12: Economic impacts of early attachment on child protection, housing and homelessness

Domain	Cost per unit / per child	National / Total cost	Notes / Additional details
Residential care (England)	£318,400 per child per year (2023–24)	£3.1 billion total (England)	Up from £239,800 per child in 2019–20; cost increase linked to placement instability and insecure attachment
Fostering allowances	£24,500–£26,676 per child per year	N/A	Excludes additional expenses such as training, administrative support, respite care; varies by child age and foster carer experience
Child protection investigations	N/A	225,400 investigations (year ending Mar 2023)	Costs include staffing, administration, and legal proceedings; court proceedings further increase costs
Temporary accommodation (homelessness)	£20,000–£25,000 per household per year (prolonged placement)	Local authorities spent >£3 billion on homelessness services in 2023–24	Targeted support for care leavers / complex needs can exceed £30,000 per person annually; includes temporary accommodation and wraparound services
Indirect / downstream costs	N/A	N/A	Includes healthcare, education, criminal justice, lost earnings, welfare dependence; higher for insecurely attached children due to behavioural and mental health challenges
Preventative intervention ROI	N/A	N/A	Early intervention and transition support show £2–£5 returned for every £1 invested

CRIMINAL JUSTICE AND ANTI-SOCIAL BEHAVIOUR

Early attachment disruption is one of several interrelated risk factors that increase the probability of youth offending. This section describes the criminal justice impacts and costs, based on UK evidence.

Criminal justice impacts

Insecure attachment, particularly stemming from or cumulative to early adverse childhood experiences, is consistently associated with an elevated risk of criminal behaviour and subsequent involvement in the criminal justice system. This encompasses a range of offences, including violent, sexual, and non-violent crimes. Meta-analytic evidence demonstrates that poor parental attachment is linked to higher levels of delinquency and general criminality (Hoeve *et al.*, 2012). Further research confirms that insecure attachment is strongly predictive of specific offences, including violent and sexual crimes (Ogilvie, 2014). Individuals who commit sexual offences frequently exhibit insecure attachment styles, which are associated with deficits in mentalising and a reduced capacity for remorse (Mann *et al.*, 2010).

Childhood experiences of insecure or disrupted attachment are strongly associated with early conduct problems, impaired emotional regulation, and reduced empathy, all of which increase the likelihood of police contact and youth justice involvement. In the context of violent offending, insecure adult attachment mediates the relationship between childhood maltreatment and later aggression, demonstrating the long-term influence of early relational experiences on anti-social behaviour (Papalia & Widom, 2023). Research indicates that over 80% of men in prison have experienced childhood adversity, with nearly half exposed to multiple adverse childhood experiences (ACEs) such as abuse or neglect (Public Health Wales, 2023).

Empirical studies consistently indicate that young people entering the criminal justice system present with disproportionately high rates of insecure and disorganised attachment, often shaped by neglect, abuse, or parental separation (Ogilvie, 2014; Papalia & Widom, 2023). Research by the Howard League highlights the impact of early adversity on young people in custody in England and Wales (Bateman, 2020). Recent UK research shows that adverse childhood experiences (ACEs) are strongly associated with youth involvement in violent crime, whereas positive childhood experiences reduce this risk (Youth Endowment Fund, 2025). These attachment-related vulnerabilities not only increase the probability of entry to the criminal justice system but also contribute to persistent offending patterns.

Criminal justice costs

The economic and social costs associated with the criminal justice system are substantial. These include direct expenditure on policing, court proceedings, incarceration, probation, and rehabilitation services, as well as indirect costs such as victim support, healthcare, lost productivity, and reduced community safety. Broader societal effects include intergenerational cycles of offending and diminished community wellbeing.

Youth offending represents a significant component of these costs. In 2022–23, nearly 8,400 children entered the youth justice system for the first time, with a notable rise among 10 to 14-year-olds (Youth Justice Board, 2023). Reoffending by children and young people is estimated to cost around £1.5 billion per year, primarily due to persistent offending patterns rather than isolated incidents (Home Office, 2019). Around 38% of children reoffend within 12 months of release or sentencing, compared with 28% of adults, highlighting the importance of early intervention to reduce long-term economic and social impacts (Ministry of Justice, 2019).

The lifetime public finance costs for a persistent young offender may exceed £2.3 million, accounting for criminal justice involvement, lost productivity, and increased public service use (Coles, 2010). Gardner *et al.* (2017) estimate cumulative costs to the criminal justice system from age 10 to 28 at approximately £1.36 billion per cohort.

The financial implications of the criminal justice system are considerable. The average annual cost per prison place is approximately £48,000, with total prison expenditure exceeding £4 billion annually (Ministry of Justice, 2022). Probation services supervise around 240,000 individuals each year at an average cost of £4,500 per person on post-release licence and £3,150 per person on a community or suspended sentence order (Ministry of Justice, 2023). Reoffending remains a major driver of criminal justice costs. The estimated cost of youth crime is £1.2 billion per year (The Prince's Trust, 2010).

Across the UK, total criminal justice expenditure remains significant. The Home Office (2018) estimated the total economic and social costs of crime in 2015–16 at £59 billion, with violent crime representing nearly three quarters of this total. The Ministry of Justice's 2023–24 resource budget of £10.9 billion—a 7.7% increase from the previous year, reflects ongoing demand for prison and probation services and enhanced investment in victim support (National Audit Office, 2023; House of Commons Library, 2023).

In Scotland, £3 billion was allocated to the criminal justice system in 2022–23, including £476 million for prison services (Scottish Government, 2022). In Northern Ireland, custodial youth justice services accounted for £6.9 million in 2015–16 (Northern Ireland Audit Office, 2016), though current data remain limited (Northern Ireland Audit Office, 2023). A review by Fitzsimons (2018) estimated that delayed intervention in Northern Ireland costs the public sector approximately £536 million annually.

Anti-social behaviour

Insecure parental attachment is a significant risk factor for the development of anti-social behaviour (ASB) in children and adolescents. Disrupted early experiences can impair emotional regulation and social development, increasing the likelihood of externalising behaviours such as aggression, delinquency and defiance (Hoeve *et al.*, 2012). Meta-analytic evidence demonstrates a robust association between poor parent-child attachment and delinquent behaviour. Hoeve *et al.* (2012) synthesised findings from multiple studies and concluded that children with insecure attachments are at elevated risk of engaging in anti-social and criminal behaviours. Gaik (2010) similarly found that parental negativity and rejection predict externalising behaviours including aggression and disruptiveness.

Secure attachment appears to offer a protective function. Wright B, Fearon P, *et al.* (2023) found that secure parent-child bonds reduce the risk of anti-social behaviour, whereas insecure attachment significantly increases vulnerability. Gardner *et al.* (2017) identified that experiences of neglect and emotional detachment from caregivers are associated with anti-social and criminal behaviour in adolescents. Yaacob *et al.* (2015) reported that adolescents with insecure parental attachment exhibit higher levels of anti-social behaviour, reinforcing the importance of stable and supportive parental relationships in mitigating risk.

The evidence consistently indicates that insecure parental attachment contributes to the development of anti-social behaviour, while secure attachment can reduce risk.

The cost of anti-social behaviour

Estimating the cost of anti-social behaviour in the UK is challenging due to the fragmented nature of expenditure across housing, community safety, environmental services and legal enforcement. However, existing evidence provides some insight into both the scale and scope of these costs.

London Councils estimated that anti-social behaviour committed by young people in London imposed direct public sector costs of approximately £650 million in 2008/09. Of this, around £500 million related to direct ASB interventions, with the remaining £150 million attributed to costs borne by the Youth Justice Board and associated court processes. Approximately two thirds of the £500 million in direct ASB costs fell on local authorities, equivalent to £330 million (PricewaterhouseCoopers, 2009).

More recent council specific evidence is available from Westminster City Council. Its 2025/26 delivery plan and budget documents include £1.25 million in revenue for ASB and rough sleeping services, £2 million in capital expenditure for CCTV, and nearly £3 million over three years to fund police officers working with council ASB teams (Westminster City Council, 2025).

The wider prevalence and operational pressures associated with anti-social behaviour across councils are documented by the Local Government Association through a 2024 survey of 126 councils reported rising ASB incidents and increasing demand on local services (Local Government Association, 2024). Taken together, these sources suggest that local authorities bear a substantial financial and operational cost from anti-social behaviour. Extrapolating from the London and Westminster data provides a useful, if indicative, benchmark for national spending. If London boroughs spend approximately £330 million on youth ASB alone, and considering additional costs in other urban, suburban and rural councils across England, it is plausible that total local authority expenditure on ASB exceeds £1 billion per annum.

IMPACTS ON THE HEALTH AND SOCIAL CARE WORKFORCE

In this chapter we explore how the wider activities of Parent-Infant teams, beyond direct therapeutic work, enhance workforce capacity, improve service delivery, and strengthen system level responses. We examine the impacts of training, consultation, and reflective supervision on practitioner skills, confidence, and inter-agency collaboration, as well as the resulting benefits for families and the broader system.

Although many parent-infant teams operate differently, they influence the broader workforce and system through three broad areas of activity: In addition to the direct therapeutic interventions delivered with families, parent-infant teams also assess and identify relational difficulties, provide training and reflective supervision and consultation to the wider workforce, facilitate multi-agency collaboration, and produce resources to support evidence-based practice (Parent-Infant Foundation, 2023; Price & Ellis, 2020; Feldman, 2012; Steele *et al.*, 2019). There are a range of benefits from this wider role.

Training and capacity building

By delivering structured training on attachment theory, early relational development, and intervention techniques, parent-infant teams enhance the skills and confidence of practitioners, including health visitors, social workers, early years staff and the Best Start Family Hubs teams in England. This equips professionals to identify and respond to relational difficulties earlier, improving service quality and consistency, making effective referrals into parent-infant services. By supporting practitioners to make timely referrals and, where appropriate, deliver brief interventions themselves, parent-infant teams enhance both the reach and responsiveness of services.

Evidence shows that parent-infant teams strengthen the wider early years and child mental health workforce by delivering training in assessment skills, light touch interventions, and strategies to promote secure parent-infant relationships. Engagement in training enhances professional knowledge, skill, and confidence, enabling earlier identification of relational difficulties and timely intervention (Price & Ellis, 2020; Early Years Review, 2021; NICE, 2014).

Consultation and case support

Parent-infant teams provide ongoing expert guidance for complex cases, helping practitioners develop intervention plans, navigate risk, and apply attachment-informed approaches within their professional context. This improves decision making and reduces reliance on crisis driven interventions.

Reflective supervision

Parent-infant teams offer structured reflective sessions, enabling staff to explore their emotional responses to challenging cases, enhance professional judgement, and prevent burnout. Reflective practice supports practitioners in maintaining attachment-informed approaches while promoting workforce wellbeing and retention.

Reflective supervision and consultation provide opportunities for staff to manage complex cases, develop intervention plans, and process emotional responses, thereby reducing burnout and improving retention (Steele *et al.*, 2019). Professionals also report increased job satisfaction, personal growth, and interprofessional collaboration following parent-infant team led training, contributing to a more cohesive, confident, and competent workforce (LEAP, 2023).

Economic and social benefits of workforce support

Collectively, these activities strengthen the system capacity, improve service quality and effectiveness, and facilitate early intervention, preventing escalation of family difficulties and reducing demand on statutory services, including child protection, mental health, and social care (Barlow *et al.*, 2016; Early Intervention Foundation, 2014). Research shows that beyond workforce development, parent-infant teams improve service delivery and system efficiency. They facilitate timely referrals for families with complex needs, support practitioners to deliver light touch interventions, and coordinate communication across health, social care, and early years services (Parent-Infant Foundation, 2023; Price & Ellis, 2020). By embedding these approaches into routine practice, parent-infant teams extend the reach of early relational support, prevent difficulties from escalating, and reduce demand for intensive statutory services such as child protection, foster care, and specialised mental health interventions (Barlow *et al.*, 2016; Dozier *et al.*, 2019; NICE, 2014).

Parent-infant teams' activities in training, consultation, and reflective supervision generate measurable economic and social benefits by enhancing workforce capacity and improving service outcomes.

Workforce retention and reduced turnover

The evidence on supervision provided by parent-infant teams specifically is not yet developed, but when reviewing the evidence on supportive supervision in general and workforce retention and turnover, we find that high quality reflective supervision and targeted training reduce staff turnover, which costs £12,000 to £15,000 per lost employee for recruitment, induction, and lost productivity (Skills for Care, 2022; CIPD, 2022). NHS England estimates that turnover in child health services can cost up to £15,000 per employee, while sick leave and burnout add further costs of around £3,000 per staff member annually (NHS England, 2022). Retaining experienced practitioners ensures continuity of care, maintains service quality, and reduces expenditure associated with recruiting and training replacement staff.

Table 13: Summary of impacts on the health and social care workforce

Impact area	Outcome for workforce	Economic / social benefit	References
Training & capacity building	Improved practitioner knowledge, assessment skills, confidence, and ability to identify relational difficulties early	Supports timely referrals and brief interventions, reduces escalation to high cost statutory services, improves service quality and consistency	Price & Ellis, 2020; Parent-Infant Foundation, 2023; Early Years Review, 2021; NICE, 2014
Consultation & case support	Enhanced decision making, safe attachment-informed interventions, reduced reliance on crisis driven responses	Prevents escalation, supports consistent care pathways, improves inter-agency collaboration	Steele <i>et al.</i> , 2019; LEAP, 2024; Parent-Infant Foundation, 2023
Reflective supervision & workforce wellbeing	Reduced burnout, improved job satisfaction, increased retention, better emotional resilience	Reduced turnover costs (£12k–£15k per lost employee), reduced sick leave costs (~£3k per staff member), continuity of care, sustained service quality	Skills for Care, 2022; CIPD, 2022; NHS England, 2022; Steele <i>et al.</i> , 2019; LEAP, 2024
Cost avoidance through early intervention	Fewer children escalated to high cost statutory services (foster care, specialised mental health, social work involvement)	Foster care savings (~£40,000 per child); reduced CAMHS referrals (up to 25% reduction; £3,500–£5,000 per child)	Barlow <i>et al.</i> , 2016; Dozier <i>et al.</i> , 2018; Fonagy <i>et al.</i> , 2016; DfE, 2023
Workforce retention & development	Increased job satisfaction, interprofessional collaboration, personal growth	Reduces recruitment and induction costs, maintains service continuity and quality	LEAP, 2023; Skills for Care, 2022; CIPD, 2022; NHS England, 2022

SYSTEM LEVEL IMPACTS

Parent-infant teams influence the broader system by embedding attachment-informed approaches across maternity, health visiting, early years, social care, and perinatal services (Parent-Infant Foundation, 2023; Price & Ellis, 2020; Steele *et al.*, 2019). Activities improve inter-agency collaboration, prevent high cost interventions downstream, improves coordination, reduces duplication, and strengthens overall service efficiency. Collectively, these activities contribute to long-term efficiencies, improved outcomes for children and families, and substantial savings for local authorities and the NHS (Barlow *et al.*, 2016; Early Intervention Foundation (2014), 2017; Knapp *et al.*, 2011).

Cost avoidance through early intervention

Improved professional competence in early relational support, timely consultation and attachment-informed practice can reduce the likelihood of escalation to higher cost statutory services, including foster care, specialised mental health support, and prolonged social work involvement.

There is empirical evidence that early, attachment-informed interventions can materially reduce demand for intensive services. Interventions targeting parent-infant attachment have been associated with a 20 to 30% reduction in children entering care in high risk populations (Barlow *et al.*, 2016; Dozier *et al.*, 2018). Given that the average annual cost of foster care in England is approximately £40,000 per child (DfE, 2023), preventing even a small number of placements can generate substantial savings.

Early interventions have also been reported to reduce referrals to Child and Adolescent Mental Health Services (CAMHS) by up to 25%, avoiding average costs of £3,500 to £5,000 per child (Fonagy *et al.*, 2016; Barlow *et al.*, 2016).

Activities that improve inter-agency coordination and referral quality, such as better triage, light touch interventions, and clear care pathways can reduce duplication and escalation pathways, producing further cost avoidance. Evaluations show that parent-infant teams strengthen collaboration between health, social care, and early years professionals, ensuring that families with emerging relational difficulties are identified earlier and receive appropriate support. This results in more accurate and effective referrals, better coordination of care, and reduced duplication of effort across services (Parent-Infant Foundation, 2023; PAIRS/LEAP evaluations, 2024).



APPENDIX TWO: CASE STUDIES VIGNETTES

This appendix presents six persona-based case study vignettes that illustrate typical scenarios encountered by parent-infant teams. It should be noted that these case studies do not reflect families who disengage or do not have access to a specialised service.

Each vignette has been carefully constructed to reflect the diverse and complex realities faced by families engaging with support services. These scenario cases are grounded in clinical insight and informed by patterns commonly observed in practice, offering a representative cross section of the challenges and needs that parent-infant teams routinely address. Most demonstrate improvements in line with what is typically seen, while one vignette represents a more severe case.

The social return on investment (SROI) analysis in this report is based on case studies one and two, with changes in PHQ-9, GAD-7, and PIR-GAS scores modified to reflect an annualised change.

These vignettes are composite case examples based on real experiences of babies and parents supported by parent-infant relationship teams. The vignettes are designed to give a voice to the baby's experiences as well as the parent's, illustrating theoretical concepts through relatable narratives.

Case study one: maternal anxiety and early separation

Introduction

Amelia, a first-time mum in her early twenties, experienced a difficult pregnancy and birth. Her son, Jacob, required admission to the special care baby unit (SCBU) for several days following delivery due to complications, leading to an early separation that Amelia found deeply distressing. She described feeling overwhelmed and anxious, struggling to bond with Jacob and experiencing intrusive worries about her adequacy as a parent.

Amelia's low mood and anxiety manifested as avoidance of interactions with Jacob and persistent feelings of guilt, failure, and resentment. She felt rejected when Jacob struggled to breastfeed and interpreted his lack of responsiveness as indifference. The combination of early separation, low confidence, and limited support placed Jacob at risk of developing an insecure attachment style and longer term difficulties with emotional regulation and bonding.

Why support was needed

When Jacob was four months old, Jacob's health visitor, who had attended training from the parent-infant team, referred her to a specialised parent-infant relationship team due to concerns about her mental health and the lack of warmth in her interactions with Jacob. Amelia described ongoing anxiety, low mood, and a pervasive sense of inadequacy.

Her relationship with her partner was strained, and she lacked other sources of emotional or practical support.

Observations suggested that Jacob had begun to show avoidant behaviours, turning away from Amelia's gaze and showing little interest in interaction. Without support, there was a significant risk that these early patterns could disrupt his socio-emotional development and contribute to longer term relationship and attachment difficulties. Amelia herself also faced the risk of ongoing depression and isolation if her experiences were not addressed.

What the team did

Following a comprehensive assessment, Jacob and Amelia were offered a specialised intervention, which provided a safe and reflective space, talking, listening, questioning, and reflecting to explore their experiences of pregnancy, birth, and early motherhood. The therapist helped Amelia to grieve for the birth she had imagined, the early separation, and the loss she felt around breastfeeding. Together they explored links between her current difficulties and her own early experiences: Amelia's father had left the family home when she was four, leaving her mother, who struggled with depression and anxiety, to raise two young children. This history of rejection and instability was being unconsciously replayed in Amelia's relationship with her baby.

Psychotherapy helped Amelia to recognise that her interactions with Jacob reflected a historical pattern of abandonment and rejection she had developed as a child with her own father. Understanding this pattern was an important first step, but progress was consolidated through careful observation of Amelia and Jacob's interactions. Using techniques such as video interaction guidance (VIG), the therapist highlighted moments of connection and sensitivity between them, helping Amelia to see herself as a capable and nurturing mum.

Amelia also engaged in goal-based outcomes planning to identify meaningful changes, such as enjoying play with Jacob and responding to his cues more confidently. Gradually, her anxiety reduced, her confidence grew, and she began to experience pleasure and warmth in her relationship with her son.

The benefits: immediate changes

Over the course of therapy, Amelia reported feeling more confident and emotionally connected to Jacob. She began to notice his positive responses (eye contact, smiles, and vocalisations) and to recognise these as signs of trust and affection. Amelia described feeling that she could finally offer something good to her baby and that she enjoyed their time together.

Quantitative measures demonstrated significant improvement:

- ◎ PHQ-9 (depression) reduced from 19 to 12
- ◎ GAD-7 (anxiety) reduced from 18 to 12
- ◎ PIR-GAS (Parent-Infant Relationship Global Assessment Scale) increased from 31 to 71.

PHQ-9 scores reduced from 19 to 12, indicating an improvement from moderately severe to moderate depression, while GAD-7 scores reduced from 18 to 12, reflecting a reduction from severe to moderate anxiety. PIR-GAS scores increased from 31 to 71, representing a substantial improvement in the parent-infant relationship, to a range typically associated with adequate to good functioning.

Similarly, observational assessments noted increased attunement, mutual engagement, and moments of shared enjoyment. Jacob became more relaxed and responsive, while Amelia demonstrated greater sensitivity and consistency in her caregiving.

During sessions, baby Jacob gradually began to make more sustained eye contact and smile in response to Amelia's cues.

The impact: medium to longer term

The specialised therapeutic work provided a strong foundation for a secure attachment between Amelia and Jacob. As Amelia's self-belief and emotional stability improved, she became better able to respond to her baby's needs and enjoy their relationship. Jacob's socio-emotional development benefited from this enhanced security, with improved stress regulation, communication, and exploration of his environment.

In the longer term, Amelia was able to manage her mental health with lower-level support through her GP, reducing the need for specialised intervention. The insights gained through therapy also equipped her to address difficulties in her relationship with her partner and to seek support from community networks.

The improved quality of the mother–infant relationship is likely to have far-reaching developmental benefits for Jacob, as well as for any subsequent siblings, including timely attainment of milestones such as speech and language, and greater resilience during key transitions, such as starting school. The work undertaken reduced the likelihood of future emotional or behavioural difficulties and set the foundation for ongoing positive interactions within the family.

Over time, the benefits of this early intervention are likely to extend across multiple domains of development

Emotional and behavioural regulation - Children who experience consistent, attuned caregiving are better able to manage stress and emotions. For Jacob, the development of a secure attachment is expected to support his capacity to self-soothe, regulate emotions, and manage frustration. Research shows that early improvements in parent–infant relationships can reduce the likelihood of later emotional and behavioural difficulties, such as anxiety, withdrawal, or oppositional behaviours.

Cognitive and language development - Securely attached infants typically demonstrate stronger cognitive and language development, in part because they feel safe to explore and engage with their environment. As Amelia's responsiveness increased, Jacob became more curious and interactive, creating more opportunities for learning through play, conversation, and shared attention. Studies indicate that such early relational security predicts higher language competence and executive functioning in later childhood.

Social competence and relationships - The experience of a secure and nurturing early relationship provides a model for how to relate to others. Jacob's strengthened attachment to his mother is likely to support the development of empathy, cooperation, and trust in future relationships. He will be more able to form positive peer relationships and respond appropriately to teachers and other caregivers, which will help him to settle and thrive in early education settings (Thompson, 2016).

Parental wellbeing and family resilience - For Amelia, the therapy facilitated a lasting shift in self-perception—from inadequacy and guilt towards confidence and competence. This change is expected to have sustained benefits for her mental health, helping her to identify and manage stressors before they escalate. As her sense of efficacy grows, she is more likely to engage positively in her relationship with her partner and seek support from community networks. The strengthened mother–infant bond may also act as a protective factor during future challenges, reducing the risk of relapse into severe anxiety or depression.

Intergenerational impact - Importantly, the work has disrupted the potential intergenerational transmission of trauma and insecurity. Amelia's ability to reflect on her own early experiences, understand how they influenced her parenting, and form new patterns of relating offers Jacob a different developmental trajectory. This not only benefits his immediate wellbeing but also increases the likelihood that, in adulthood, he will be able to form and sustain healthy, supportive relationships and parent sensitively himself.

This case illustrates how specialised intervention tailored to the needs of an individual baby and their caregiver can repair disrupted early parent-infant relationships and significantly improve outcomes for both parent and child. The work set in motion a cascade of positive effects that extended well beyond the immediate reduction in symptoms. The secure attachment established between Amelia and Jacob provided a foundation for emotional resilience, cognitive development, social competence, and family stability, with benefits likely to endure throughout childhood and into adulthood. By addressing the intergenerational transmission of trauma, offering a reflective therapeutic space, and using relationship-focused tools such as video interaction guidance (VIG), the service facilitated a profound shift from anxiety and disconnection towards confidence, warmth, and mutual enjoyment. This support fundamentally changed the trajectory of Amelia and Jacob's relationship, promoting sustained wellbeing and positive developmental outcomes for both.

Case study two: adverse childhood experiences

Introduction

Laura had always dreamed of becoming a mum, but her early life was marked by trauma, instability, and loss. Taken into foster care at the age of five after suffering abuse, she experienced a series of residential placements and was separated from her siblings. These experiences resulted in a high number of adverse childhood experiences (ACEs), leaving her with deep emotional scars and limited trust in others. As an adult, Laura struggled with substance misuse, self-harm, and involvement in abusive relationships. She felt trapped in a cycle of pain, using drugs and alcohol to numb her emotions and cope with overwhelming feelings of fear and inadequacy. When her three eldest children were placed in care, her sense of hopelessness deepened, leading to suicidal thoughts and attempts.

Why support was needed

By the time Laura became pregnant again, she was terrified that she would not be able to meet her baby's needs or break the patterns of her past. She avoided attending antenatal appointments for fear of coming to the attention of services, and her anxiety led to increased smoking and erratic eating. Her history of trauma, addiction, and domestic abuse created a significant risk of her baby being removed from her care. She was isolated, mistrustful of professionals, and fearful of further involvement from social services.

Baseline assessments showed clinically significant levels of depression and anxiety, with a PHQ-9 score of 22 (severe depression) and a GAD-7 score of 19 (severe anxiety). Her Parent-Infant Relationship Global Assessment Scale (PIR-GAS) rating was 35, indicating a disordered and inconsistent parent-infant relationship. Intensive, trauma-informed support was therefore essential to rebuild trust, process trauma, and develop a secure attachment with her new baby.

What the team did

Following an assessment, Laura and her baby began attending weekly parent-infant psychotherapy sessions, which provided a safe and non-judgemental space to explore her traumatic experiences and the impact of these on baby Reagan and the parent-infant relationship. The therapeutic approach integrated trauma-focused psychodynamic work with parent-infant observation, helping her to reflect on how her past affected her current relationships and parenting. Alongside this, the team worked collaboratively with social care, perinatal mental health services, and substance misuse support to provide a consistent, wrap-around approach.

Over time, Laura began to trust her therapist, reduce her use of substances, and attend sessions regularly. Her ability to mentalise—understand her own and her baby's emotional states—improved significantly. She began to distinguish between past trauma triggers and her present relationship with her daughter, allowing for more sensitive and responsive caregiving. Initial observations noted that baby Reagan rarely vocalised or made eye contact, instead curling up and avoiding interaction, appeared withdrawn, often turning away from interaction.

The benefits: immediate changes

Within three months, Laura's PHQ-9 score had reduced to 14 (moderate depression) and her GAD-7 score to 11 (moderate anxiety), indicating measurable improvements in mood and emotional stability. She reported fewer intrusive thoughts and increased motivation to care for herself and her baby.

Observational assessments noted greater eye contact, warmth, and positive affect during interactions indicating improvements in baby Reagan's emotional engagement and responsiveness. As Laura became more sensitive, baby Reagan began to settle more quickly and demonstrated clear enjoyment during play and feeding.

After around six months of sessions, observational assessment showed her PIR-GAS score rose to 55, reflecting an emerging but consistent attachment relationship. Baby Reagan also demonstrated greater ease during sessions, suggesting a more secure relational environment and Laura's enhanced capacity to respond to the baby's emotional cues. She also began to engage more openly with professionals, demonstrating increased trust and willingness to accept support.

The impact: medium to longer term

After nine months of sustained intervention, Laura's PHQ-9 and GAD-7 scores had both reduced to within the mild range (PHQ-9: score of 7; GAD-7: score of 6). She no longer met clinical thresholds for major depressive disorder or generalised anxiety. Her PIR-GAS score increased to 70, indicating a well-functioning and secure parent-infant relationship.

Laura described feeling more confident, calm, and capable as a mother. She was developing a stable routine, maintaining sobriety and building a supportive peer network through a local parenting group. She was able to be stepped down to ongoing family support so that professionals could maintain a watchful but supportive relationship with Laura.

While Laura continues to manage the legacy of early trauma, her progress demonstrates the effectiveness of intensive, trauma-informed therapeutic support in improving parental mental health and strengthening early attachment relationships.

Case study three: maternal mental health, postnatal depression and couple-relationship stress

Introduction

Sophie, a 28 year-old first time mum, experienced postnatal depression following the birth of her daughter, Ava. She reported persistent low mood, fatigue, and feelings of inadequacy, which affected her ability to respond sensitively to Ava's cues. Complicating this, Sophie's relationship with her partner had become increasingly strained, with occasional episodes of heightened verbal conflict during which Sophie's partner became emotionally abusive, creating a stressful home environment. These factors disrupted early caregiving routines and placed Ava at risk of developing insecure attachment style, impaired emotional regulation, and delayed social-emotional development.

Why support was needed

Sophie's depression and anxiety manifested in low energy, reduced responsiveness, and difficulty establishing consistent routines for feeding, sleeping, and play. Baby Ava displayed distress, withdrawal behaviours, and irregular routines, indicating early stress in the parent-infant relationship and developmental concerns for Ava. Sophie initially struggled to recognise the impact of the household conflict on Ava and felt powerless to change the situation. Without intervention, both mum and infant faced increased risks of long-term emotional and developmental difficulties, including disrupted attachment patterns and reduced maternal confidence.

What the team did

Following a comprehensive assessment, the parent-infant team provided a package of support drawing on different treatment modalities, tailored to the needs of Ava and Sophie. The parent-infant team provided home-based support combining maternal mental health therapy, psychoeducation about infant cues, and guided parent-infant interaction sessions. Practitioners modelled sensitive, responsive behaviours and supported Sophie in recognising Ava's signals. Structured and unstructured play routines were introduced to promote bonding, while video interaction guidance (VIG) helped Sophie observe moments of connection, reinforcing her confidence in caregiving.

Therapy also addressed the broader family context. Through careful exploration and reflective work, Sophie was supported to make safeguarding decisions regarding her partner, ultimately leaving the household and moving in with her parents to create a safe environment for herself and Ava. Once safety and stability were established, the focus shifted to helping Sophie understand Ava's perspective, recognise her needs, and respond with sensitivity and attunement. Sophie joined a structured group programme, Circle of Security, to develop greater sensitivity and confidence in responding to Ava's needs.

Goal-based outcomes planning helped Sophie set practical objectives, such as enjoying playtime, responding consistently to cues, and establishing predictable routines. Over time, this enabled a shift from anxiety and disengagement to warmth, confidence, and mutual enjoyment in the mother-infant relationship.

The benefits: Immediate changes

Within the first two months of support, Sophie's scores on the Hospital Anxiety and Depression Scale (HADS) improved:

- ◎ Depression: reduced from 16 to 8
- ◎ Anxiety: reduced from 15 to 11.

A reduction in depression scores from 16 to 8 indicates an improvement from moderately severe to mild symptoms, while anxiety scores reducing from 15 to 11 reflect a shift from severe to moderate anxiety. These changes suggest a clinically meaningful improvement, although some symptoms remain present.

Observational assessments using the Parent-Infant Relationship Global Assessment Scale (PIR-GAS) showed an increase from 55 to 71, reflecting improved bonding and attunement. Baby Ava became more vocal, active, and engaged during interactions, demonstrating early signs of agency and positive exploration. Sophie reported increased confidence in caregiving and enjoyment of her relationship with Ava, and routines around feeding and sleeping became more predictable and manageable.

The impact: medium to longer term

The intervention established a secure attachment relationship between Sophie and Ava, which provides the foundation for emotional resilience, social competence, and cognitive development. Ava's enhanced responsiveness and exploration support early learning, peer interactions, and the development of regulatory skills that will benefit her throughout childhood.

Sophie's emotional wellbeing and coping strategies improved, reducing the likelihood of recurrent depression and enhancing her capacity to parent confidently and respond sensitively to Ava's needs. The safe and stable home environment further strengthened family resilience and promoted long-term stability.

Addressing maternal mental health, domestic stress, and parent-infant interaction together created a positive developmental trajectory for Ava, reducing the risk of long-term emotional or behavioural difficulties and supporting the intergenerational transmission of secure attachment. Sophie is now better equipped to manage future stressors, seek support when needed, and provide a nurturing environment for Ava and any future children.

Through consistent, sensitive caregiving, Ava can develop effective strategies for self-soothing and emotion regulation. This reduces the risk of internalising or externalising behaviours in later childhood and adolescence. Secure attachment and responsive interaction support curiosity, exploration, and early problem-solving. Ava's experiences of sensitive responsiveness from Sophie create opportunities for enriched language development, play, and cognitive growth. By experiencing a reliable, attuned relationship with her primary caregiver, Ava is more likely to form positive, trusting relationships with peers, teachers, and other adults. Early experiences of secure attachment foster empathy, cooperation, and social understanding, which underpin successful interactions in educational settings.

This case illustrates the transformative impact of early, specialised parent-infant interventions through a treatment plan based on individual needs. By providing a reflective therapeutic space, relationship-focused support, and practical guidance, the service enabled Sophie to move from anxiety, disengagement, and stress to confidence, warmth, and attuned caregiving. The strengthened mother-infant bond has set the foundation for Ava's secure attachment, promoting sustained emotional, cognitive, and social development, as well as long-term family wellbeing.

Case study four: intergenerational trauma

Introduction

Donna's early life was challenging, shaped by experiences that left her with limited support and confidence in her own parenting potential. Determined to provide a different experience for her baby, Isla, she sought help from a specialised parent-infant relationship team. Her goal was to break cycles of intergenerational trauma and develop the kind of parenting she had always wanted.

Intergenerational trauma refers to the ways in which the effects of trauma experienced by one generation can influence the next. Parents who have experienced neglect, abuse, or unstable caregiving may internalise patterns of behaviour, emotional responses, and coping strategies that can affect their own parenting. Without support, these patterns, such as difficulty regulating emotions, forming secure attachments, or responding consistently to a child's needs, can be unconsciously passed on.

Supporting parents to process their own experiences and develop awareness of these patterns can help break the cycle of trauma. By building secure attachments, learning healthy coping strategies, and gaining confidence in their parenting abilities, parents can create nurturing and stable environments for their children, reducing the risk that trauma will be transmitted to the next generation.

Donna approached the service with openness but also with some apprehension, recognising that she had internalised patterns from her own childhood that could affect her relationship with baby Isla.

Why support was needed

Donna wanted to ensure that her child, Isla, had a secure and nurturing environment, avoiding the difficulties she had experienced herself. She recognised that her own experiences could impact her confidence and parenting practices.

Baseline measures reflected mild to moderate challenges:

- ◎ Her PHQ-9 score was 15, indicating moderate depression, and
- ◎ Her GAD-7 score was 12, indicating moderate anxiety.

Observational assessments using the Parent-Infant Relationship Global Assessment Scale (PIR-GAS) rated her relationship with Isla at 50, showing an emerging but inconsistent attachment relationship. Donna's goal was to gain the tools and confidence to be the parent she aspired to be while strengthening the bond with her baby.

What the team did

Isla and Donna engaged in one-to-one weekly parent-infant sessions. The sessions focused on helping her reflect on her own childhood experiences, understand how these influenced her emotions and interactions, and develop practical strategies to support positive attachment. She received guided observation, feedback, and coaching to improve responsiveness and attunement with Isla.

In addition to the comprehensive assessment, the service provided a flexible package of support individualised for each baby and family. The service provided emotional support, helping Donna recognise her strengths and reduce self-criticism.

Staff worked collaboratively with family hubs and early help services to create a consistent and safe support network around her family. Later, alongside individual sessions, participation in a Mellow Parenting group gave Donna more practical tools and the opportunity to share experiences with other Mums.

The benefits: immediate changes

Within a few months, Donna reported noticeable improvements in her confidence and mood. Her PHQ-9 score reduced to 9, and her GAD-7 score to 7, moving both within the mild range. Observations of her interactions with Isla showed more consistent responsiveness, sensitivity, and warmth. Her PIR-GAS score improved to 65, indicating a stronger, more reliable attachment relationship. During sessions, baby Isla gradually began to make more sustained eye contact and smile in response to her mum's cues.

Donna described feeling proud, joyful, and deeply connected to her baby, sharing her excitement and achievements openly. The programme also provided her with practical tools and strategies to manage everyday parenting challenges, which reinforced her sense of competence.

The impact: medium to longer term

After sustained engagement, Donna's confidence as a parent continued to grow. Her PHQ-9 and GAD-7 scores remained within the mild range, and her PIR-GAS rating reached 75, reflecting a secure and well-functioning parent-infant relationship. She reported feeling more resilient, capable, and able to balance her own needs with those of Isla.

The programme had a broader impact on her family life, supporting her to strengthen her role as a partner and develop healthier relationships. Donna reflected that the support had been life changing, helping her realise that she could be a great parent without being perfect and breaking intergenerational cycles of trauma. The programme's integration into family hubs and early help services ensured that similar benefits could be experienced by other families in need, embedding both value and practice changes in the local system.

Case study five: father-infant bonding and paternal mental health

Introduction

Tom, a 36-year-old father of two, experienced severe anxiety and low mood following the birth of his son. Working irregular shifts while supporting a partner with postnatal depression, Tom struggled to feel confident and engaged in his parenting role. He reported feeling detached and like "a bystander" in family life, avoiding caregiving tasks and spending limited time with the baby.

This combination of paternal mental health difficulties and low father-infant engagement placed the baby, Ben, at risk of reduced social-emotional development, insecure attachment, and limited early relational experiences that are crucial for cognitive and emotional growth.

Why support was needed

Tom's difficulties manifested as withdrawal, irritability, and challenges in interpreting Ben's cues. His partner reported feeling unsupported, adding relational stress and creating a family environment where anxiety and low mood could reinforce each other.

Without targeted support, these patterns risked perpetuating cycles of avoidance, inconsistent caregiving, and relational stress, which research indicates can influence both child attachment security and the long-term emotional wellbeing of fathers themselves. Supporting Tom was critical for the establishment of a secure and responsive early parent-child relationship.

What the team did

Tom was referred by his health visitor to the parent-infant team for father-inclusive intervention. The programme combined psychoeducation, dyadic therapy, and cognitive-behavioural approaches tailored to paternal needs. Joint video-feedback sessions were used to highlight moments of positive interaction and strengthen Tom's awareness of baby Ben's cues. Psychoeducational work explored the father's role in attachment, emotion regulation, and early brain development. Cognitive-behavioural strategies were introduced to help Tom identify and manage anxious thoughts that interfered with engagement. Dyadic play and caregiving routines were structured to promote confidence, enjoyment, and predictability in the father-infant relationship.

The benefits: immediate changes

Within eight weeks, Tom's GAD-7 score reduced from 13 to 7, and his PHQ-9 score decreased from 14 to 9, indicating clinically meaningful improvements in anxiety and mood.

Observational assessments demonstrated increased frequency and quality of positive father-infant interactions, including sustained eye contact, responsive vocalisations, and mutual enjoyment during play. Early sessions showed signs of heightened anxiety in baby Ben, including tense limbs and frowning, which reduced noticeably with consistent relational support. Tom reflected, "I realised he already looks for me – I just needed to see what was happening between us." Ben's engagement increased noticeably, with more smiling, vocalisation, and exploratory play, suggesting enhanced social-emotional responsiveness.

The impact: medium to longer term

Over time, Tom's growing confidence in his parenting role strengthened the family system, reducing stress on his partner and supporting more cohesive co-parenting. Ben's social-emotional development improved, demonstrating secure attachment, effective emotional regulation, and positive peer relationships at nursery. Tom's increased involvement also acted as a protective factor against future mental health relapse and supported ongoing engagement in his child's care, learning, and broader family life. The intervention contributed to breaking cycles of relational stress and promoted long-term benefits for both parent and child, aligning with evidence that father-inclusive support can enhance family functioning and child developmental.

Projected impacts: five years on

By the time Ben reaches school age, the early father-inclusive intervention is likely to have enduring benefits for both Tom and his family.

Child development and wellbeing:

- ◎ Ben is expected to continue demonstrating strong social-emotional and cognitive skills, supported by secure attachment and consistent, responsive caregiving from Tom
- ◎ Early improvements in father-infant interaction are likely to promote resilience, positive peer relationships, and school readiness, providing a buffer against stress or challenges in later childhood
- ◎ Ben may show enhanced emotional regulation and communication skills, reflecting the early modelling of sensitive and attuned interactions.

Parental mental health and parenting capacity:

Tom is likely to maintain improved mood and anxiety management, benefiting from confidence gained in his parenting role and continued use of cognitive-behavioural and reflective strategies learned during intervention

- ◎ Sustained engagement in caregiving reduces risk of relapse into anxiety or depressive episodes and supports continued positive involvement in family routines and decision-making.

Family system and co-parenting:

- ◎ The strengthened family system and improved co-parenting dynamics established during the intervention are expected to persist, promoting stable, supportive relationships between Tom, his partner, and their children
- ◎ Reduced relational stress within the household may enhance overall family functioning and resilience to future challenges, such as school transitions or work related stress.

Long-term intergenerational effects:

- ◎ By supporting Tom to engage confidently and responsively with Ben, the intervention reduces the risk of perpetuating patterns of relational stress and insecure attachment
- ◎ Ben's experiences of secure attachment and consistent caregiving provide a foundation for healthy relationships and future parenting capacity, potentially interrupting cycles of relational difficulties across generations.

Case study six: a Refugee family

Introduction

Aisha, a 32-year-old mum of three, had recently arrived in the UK as a refugee and spoke English as a second language. She was referred to the parent-infant team by her midwife due to symptoms of depression and overwhelming stress linked to housing insecurity, financial hardship, and the challenges of settling in a new country. Her six-month-old daughter, Leila, had limited early interaction experiences, and Aisha described struggling to "feel connected" due to exhaustion, anxiety about rent arrears, and limited social networks.

Chronic stress, compounded by displacement and cultural adjustment, placed Leila at risk of delayed cognitive development and insecure attachment.

Why support was needed

Aisha's daily life was marked by social isolation, language barriers, and difficulty navigating systems such as housing, benefits, and healthcare. She often avoided play and stimulation with Leila, believing she "had nothing to give," while Leila appeared passive during interactions, showing reduced eye contact and vocalisation. Without intervention, these patterns could contribute to developmental delay, reinforce intergenerational disadvantage, and exacerbate the stress associated with Aisha's adjustment to a new country and culture.

What the team did

The parent-infant team provided a holistic, culturally sensitive programme combining practical and therapeutic support. A perinatal mental health practitioner worked alongside a family support worker and interpreter to address housing, benefits, and settlement needs. Therapeutic sessions focused on strengthening the emotional connection between Aisha and Leila, using video interaction guidance (VIG) to highlight Aisha's existing strengths and attunement skills. The team also facilitated access to a peer group for refugee mothers, providing social support and opportunities to share experiences in a culturally and linguistically safe environment.

The benefits: immediate changes

After six sessions, Aisha's PHQ-9 score reduced from 16 to 10, indicating a significant decrease in depressive symptoms.

PIR-GAS scores increased from 45 to 70, showing measurable improvement in interaction quality and attachment. Aisha began enjoying shared playtime and expressed growing confidence in her caregiving. Leila became more animated and engaged during daily routines, showing increased smiling, vocalisation, and anticipation of interaction. Observations captured moments of delight, such as baby Leila laughing at peek-a-boo games, which had been absent before intervention.

The impact: medium to longer term

Over the following year, Aisha maintained improved mood and emotional attunement. The family moved into stable accommodation, and Aisha accessed further training and English language support, enhancing her self-efficacy, independence, and social networks.

Leila's developmental assessments at 18 months indicated age-appropriate progress in communication, motor skills, and social engagement.

By combining practical, culturally sensitive support with therapeutic intervention, the programme strengthened both maternal resilience and infant development, while helping break potential cycles of disadvantage and supporting successful settlement in a new country.

Projected impacts: five years on

By the time Leila reaches school age, the early intervention and ongoing support received through the parent-infant programme are likely to have cumulative positive effects.

Child development and wellbeing:

- Leila is expected to continue demonstrating age-appropriate social, emotional, and cognitive development, benefiting from secure attachment and responsive caregiving in early years
- Early gains in language and communication, supported by maternal engagement and peer group participation, should translate into stronger school readiness, academic performance, and peer relationships

- Resilience to stress is likely to be higher, as secure attachment and responsive caregiving buffer the effects of earlier adversity.

Parental mental health and parenting capacity:

- Aisha is likely to maintain improved mood and anxiety management, supported by confidence gained in her parenting role and ongoing access to peer networks and community resources
- She may continue to use coping strategies and reflective skills learned during intervention, reducing the likelihood of depressive relapse and enhancing her ability to support Leila's emotional regulation.

Family system and social integration:

- The family's stable housing, strengthened social networks, and increased self-efficacy may reduce the risk of social disadvantage, improve financial stability, and support community participation
- Aisha's confidence as a parent and her improved English skills will enhance her ability to navigate education, healthcare, and local services, increasing family resilience.

Long-term intergenerational effects:

- Breaking early patterns of stress, isolation, and insecure attachment reduces the likelihood that intergenerational cycles of disadvantage and trauma will continue
- Leila's experiences of secure, responsive parenting provide a foundation for healthy relationships in adolescence and adulthood, potentially influencing her own future parenting capacity positively.



APPENDIX THREE: COST-CONSEQUENCE ANALYSIS DATA

This appendix sets out in tabular form the information presented in the cost consequence analysis section of this report. In the annualised individual benefit and lifetime benefits columns, an inflation multiplier has been applied to convert costs into 2025 equivalent costs, based on the year of the original research. In addition, an indicative attribution and prevalence multiplier has been applied to the identified benefits to give an indication of the scale of benefit that can be linked to positive parent-infant relationships. There is no robust way of determining this multiplier, so this is intended to be illustrative of a cautious level of attribution of costs.

Early childhood cost-consequences

The early childhood impacts for reductions in maternal anxiety and depression been drawn from the SROI analysis, which suggested an impact of between £5,900 and £9,940 per family, within the first year of receiving support, depending on the severity of the case. In addition, we have added costed outcomes for improved parent infant relationships over a longer time period than the SROI considered, as well as an estimated value of broader service change enabled by PIF teams as detailed in the table below.

Category	Outcome	Description	Estimated Cost	Source	Year	Annualised individual benefit - inflation adjusted	Lifetime benefit	Indicative attribution / prevalence multiplier	Illustrative adjusted benefit
Developmental outcomes	Improved parent infant relationship	Improvements in the parent-infant relationship are strongly associated with reductions in insecure attachment.	Infants with insecure maternal attachment incur an estimated additional £3,500 per year, while those with insecure paternal attachment may generate up to £12,700 extra annually	Bachmann <i>et al.</i>	2019	£4,497	£22,484	15.0%	£3,373
Workforce	Reduction in staff turnover	High-quality reflective supervision and targeted training reduce staff turnover	£12,000 to £15,000 per lost employee for recruitment, induction, and lost productivity	Skills for Care	2022	£13,747	£13,747	5.0%	£687

Mid term

For mid-term impacts (identified as childhood and adolescence), the 'lifetime benefit' is defined as the benefit accrued between either the ages of five and 11 years (for the Developmental Outcomes category) or 11 and 18 for the other types of impact. Therefore, the annualised individual benefit has been multiplied by six (Developmental Outcomes category) or seven (all other categories) to reach the lifetime benefit figure. On this basis, the total mid-term illustrative benefit to the individual would be approximately £18,000.

Ages five to 11

Category	Outcome	Description	Estimated Cost	Source	Year	Notes	Annualised individual benefit - inflation adjusted	Lifetime benefit	Indicative attribution / prevalence multiplier	Illustrative adjusted benefit
Developmental outcomes	Lower levels of school readiness	Insecure attachment can impede school readiness.	Early years programmes that combine socio-emotional and cognitive skill development typically cost between £2,000 and £6,000 per child per year.	Sylva <i>et al.</i>	2014	Children who start school with lower levels of readiness often require additional support, such as targeted literacy and numeracy interventions, small-group teaching, or specialised educational services.	£2,767	£16,603	15.0%	£2,491
Developmental outcomes	Increased need for speech and language therapy	Children with insecure attachment may experience delays in gross and fine motor skills, cognitive functioning, language acquisition, and socio-emotional competencies	Early SLT interventions cost approximately £1,200 per child and can substantially reduce the need for more intensive services later	Law <i>et al.</i>	2017		£1,610	£9,663	15.0%	£1,449

Ages 11 to 18

Category	Outcome	Description	Estimated Cost	Source	Year	Notes	Annualised individual benefit - inflation adjusted	Lifetime benefit	Indicative attribution / prevalence multiplier	Illustrative adjusted benefit
Criminal justice	Increased risk of anti-social behaviour	Children with severe anti-social behaviour	Mean annual costs of nearly £6,000 per child with severe anti-social behaviour	Romeo, Knapp & Scott	2006	majority borne by families through lost income, additional care needs, and other related expenses	£10,414	£72,895	1.5%	£1,093
Criminal justice	Increased risk of youth justice involvement	Insecure attachment is consistently associated with an increased risk of criminal behaviour and involvement in the criminal justice system	Annual cost to the criminal justice system of a young offender was approximately £8,000, rising to £29,000 for the most prolific 10% of young offenders	National Audit Office	2011		£11,876	£83,130	1.5%	£1,247
Education, employment, and productivity	School exclusion	Costs due to repeat exclusions and alternative provision	Cost of providing a place at a Pupil Referral Unit (PRU) in the UK varies. estimates suggest that the average cost per pupil is between approximately £17,600 and £25,500 per year.	Hounslow Borough Council	2016		£24,279	£169,952	1.5%	£2,549
Education, employment, and productivity	Increased educational costs	Additional school support, behavioural interventions, SEN provision.	The cost of supporting a pupil with SEMH needs is typically covered by the school's notional Special Educational Needs (SEN) budget. For pupils on SEN support, the average annual cost is approximately £3,500. For those with higher needs, the additional support costs up to £6,000 per pupil per year, with local authorities providing top-up funding above this threshold.	Department for Education	2024		£3,623	£25,361	7.5%	£1,902

Category	Outcome	Description	Estimated Cost	Source	Year	Notes	Annualised individual benefit - inflation adjusted	Lifetime benefit	Indicative attribution / prevalence multiplier	Illustrative adjusted benefit
Healthcare	Increased risk of anxiety and depression in children	Increased use of NHS mental health services due to child mental health difficulties	Mental health problems during childhood and adolescence cost between £11,030 and £59,130 per child per year.	Parent-Infant Foundation	2023		£11,653	£81,568	5.0%	£4,078
Social services	Increased involvement of social services	Higher levels of involvement with social services, child protection interventions.	The unit cost of a child protection plan is approximately £5,321. This includes the costs associated with the assessment, ongoing support, and case reviews.	Institute for Fiscal Studies	2022	Insecure attachment in early life is strongly associated with increased involvement in child protection and social care systems.	£6,096	£42,669	1.5%	£640
Social services	Increased chance of foster or residential care placements	adolescents who report insecure attachments to caregivers have higher rates of care system involvement, including foster or residential care	fostering allowances typically range from £24,500 to £26,676 annually.	Fostering People	2025		£24,500	£171,500	1.5%	£2,573

Long term

For long-term impacts (identified as whole lifetime benefits), the 'lifetime benefit' is either the lifetime benefit stated in the original research or, where an annual figure is given, it has been calculated as the benefit accrued between the ages of 18 and 80 years. Therefore, the annualised individual benefit has been multiplied by 62 to reach the lifetime benefit figure. On this basis, the total long-term illustrative benefit to the individual would be approximately £12,500.

Category	Outcome	Description	Estimated Cost	Source	Year	Notes	Annualised individual benefit - inflation adjusted	Lifetime benefit	Indicative attribution / prevalence multiplier	Illustrative adjusted benefit
Criminal justice	Increased risk of anti-social behaviour	Lifetime cost of conduct disorder	£260,000 per individual	Knapp, Scott & Davies	2002	Increased risks of offending, substance misuse, unemployment, and reliance on state benefits	£7,796	£483,356	0.4%	£1,933
Criminal justice	Increased risk of involvement with the criminal justice system	Insecure attachment is consistently associated with an increased risk of criminal behaviour and involvement in the criminal justice system	Probation services supervise around 240,000 individuals annually, at an average cost of £4,500 per person (post-release licence) and £3,150 per person (community order or suspended sentence)	MoJ	2023		£3,328	£206,324	0.8%	£1,651
Education, employment, and productivity	Lower levels of educational attainment	Individuals with lower qualifications are more likely to earn less	Lifetime earnings differences between those with only GCSE-level education and university graduates can exceed £300,000 over a working life, after adjusting for inflation.	Machin and Murphy	2018	Children in care, who frequently exhibit insecure attachment patterns, had attainment gaps of approximately 25 to 30% at Key Stage 2 and 25% at Key Stage 4 compared to their peers.	£6,340	£393,094	0.8%	£3,145
Housing and homelessness	Increased risk of unstable housing	Insecure attachment has been consistently linked to increased risk of housing instability and homelessness in later life.	In the South East of England, the cost of housing one individual in temporary accommodation is estimated at £50 to £90 per person per night. This translates to an annual cost ranging from approximately £18,250 to £32,850 per person.	Greater Change	2023		£19,280	£1,195,368	0.2%	£2,391

Category	Outcome	Description	Estimated Cost	Source	Year	Notes	Annualised individual benefit - inflation adjusted	Lifetime benefit	Indicative attribution / prevalence multiplier	Illustrative adjusted benefit
Social impacts	Increased isolation and loneliness	Adults with histories of insecure attachment are less likely to volunteer, participate in local decision-making processes, or engage in political activities, contributing to reduced social capital and lower levels of collective efficacy within communities.	Estimates suggest that the annual cost per lonely individual is approximately £9,900, reflecting the combined effects on health, work, and social participation	Department for Digital, Culture, Media and Sport	2017		£13,286	£823,753	0.4%	£3,295



APPENDIX FOUR: SUGGESTED NATIONAL CORE DATASET

To support consistent monitoring and evaluation, parent-infant relationship teams could align with a national core dataset or set of standardised indicators. This would facilitate systematic tracking of outcomes over time, enable benchmarking across services, and provide a robust evidence base to inform investment and policy decisions at both national and local levels.

Proposed domains and indicators include:

- ◎ **Baby wellbeing, mental health and development:** Measures could include infant emotional and behavioural cues, stress or distress levels, early developmental milestones, and observational indicators of relational security. Capturing these indicators ensures the voice of the baby is central to evaluation.
- ◎ **Parent-infant relationship:** Indicators should reflect the quality, security, and sensitivity of the parent-infant relationship, incorporating both clinician-rated and parent-reported measures. This domain can highlight the impact of interventions on relational attunement and attachment processes. Longitudinal follow-up, capturing repeated measures over time would allow for evaluation of both short-term and sustained changes and supports evidence of long-term impact.
- ◎ **Parent mental health:** Standardised measures of parental depression, anxiety, and psychological wellbeing (e.g., PHQ-9, GAD-7) should be included, as improvements in parental mental health are often closely linked to relational and baby's outcomes.
- ◎ **Workforce development and system change:** Metrics could capture staff training, reflective supervision, implementation of evidence-based approaches, and integration with other services. Monitoring these indicators can demonstrate capacity building, quality improvement, and system-level impact of parent-infant teams.

Establishing a core national dataset would also facilitate comparative analyses, benchmarking, and research across regions, supporting continuous improvement and demonstrating the value of specialised parent-infant relationship services to commissioners and policymakers.

It is suggested that a pilot with two or three teams is conducted to understand any challenges in operationalising the indicators, before rolling out.



APPENDIX FIVE: GLOSSARY

The following glossary defines key terms, concepts, and acronyms used throughout this report. It is intended to provide readers with clear explanations to support understanding and ensure consistent interpretation of technical or specialised language.

Key organisations, services and concepts:

First 1001 Days - A UK public health initiative focusing on the critical period from conception to a child's second birthday, aimed at improving health, development, and parental support.

Integrated Care Board (ICB) - Local statutory NHS bodies responsible for planning and commissioning health and care services in England.

Parent-Infant Foundation - The UK charity supporting research, practice, and training to improve the quality of parent-infant relationships.

Specialised parent-infant relationship teams - As of 2025, 51 teams are operational nationwide, providing targeted support to parents and infants with identified relational difficulties. See parentinfantfoundation.org.uk/our-work/what-is-a-parent-infant-team for Parent-Infant Foundation's detailed defintion.

Attachment and relational concepts:

Adverse Childhood Experiences (ACEs) - Potentially traumatic events in childhood, such as abuse, neglect, or household dysfunction, linked to later health and social outcomes.

Anxiously attached - An attachment style characterised by heightened concern over the availability and responsiveness of caregivers.

Avoidantly attached - An attachment style characterised by emotional distance or discomfort with closeness in relationships.

Disinhibited attachment disorder - Now termed Disinhibited Social Engagement Disorder (DSED), is a childhood attachment-related condition characterised by developmentally inappropriate, overly familiar behaviour with unfamiliar adults.

Disorganised attachment - An attachment style marked by contradictory behaviours, fear, or confusion in the caregiver-child relationship.

Insecure attachment - Refers to a pattern of relating where a child does not feel safe, secure, or confident that their primary caregiver will consistently meet their physical and emotional needs. This term encompasses anxious, avoidant, and disorganised attachment.

Intergenerational trauma - Psychological or emotional effects of trauma that are transmitted across generations, influencing parenting and attachment.

Maternal attachment - The emotional bond and relationship quality between a mother and her baby.

Paternal attachment – The emotional bond and relationship quality between a father and his baby.

Parental attachment – The emotional bond and relationship quality between an infant and their primary caregiver(s), including mothers, fathers, or other consistent caregivers, which influences the child's sense of security, emotional regulation, and social development.

Perturbed – A **PIR-GAS categorisation**, defined as relationships that are functioning reasonably well, less than optimally in some way. The disturbance is limited to one domain of functioning and lasts from a few days to a few weeks.

Secure attachment – An attachment style characterised by trust, comfort with closeness, and confidence in caregiver availability.

Interventions and approaches

Dyadic therapeutic work – Therapeutic interventions involving both parent and baby, focusing on interaction patterns, emotional regulation, and relationship quality.

Triadic therapeutic work - Therapeutic interventions involving the parent, baby, and an additional family member or caregiver, aimed at supporting relational dynamics and attachment within the wider family system.

Reflective supervision – Structured support for practitioners that encourages reflection on clinical practice, decision-making, and emotional responses to families.

Measurement and methodological terms

Cost-consequence analysis – An economic evaluation method that presents costs and a range of outcomes without aggregating them into a single metric.

EQ- 5D-3L - A short questionnaire used worldwide to describe a person's health across five areas (movement, self-care, daily activities, pain or discomfort, and anxiety or depression), each with three levels of severity. The answers are combined into a health utility score that summarises overall health and allows health outcomes to be compared across people, treatments, and countries.

Generalised Anxiety Disorder scale (GAD-7) – A seven-item questionnaire used to assess the severity of anxiety symptoms.

Minimum Clinically Important Difference (MCID) – The smallest change in a clinical measure that is perceived as beneficial by the patient or has meaningful clinical significance.

Parent-Infant Relationship Global Assessment Scale (PIR-GAS) – A structured observational tool assessing the overall quality of the parent-infant relationship.

Patient Health Questionnaire (PHQ-9) – A nine-item measure assessing the severity of depressive symptoms.

QALY: Quality Adjusted Life Year (QALY) – A tool that combines both quantity and quality of life into a single measure that puts a figure on the health benefits for any medical treatment.

Randomised controlled trial (RCT) – A study design in which participants are randomly assigned to intervention or control groups to evaluate the effect of a treatment.

Return on investment (ROI) – A measure of the financial benefit generated by an intervention relative to its cost.

Social Return on Investment (SROI) – A measure of the wider social, environmental, and economic outcomes of an intervention, expressed in monetary terms relative to the investment made.

Whole Time Equivalent (WTE) – A unit of measurement indicating the workload of a full-time employee, used to standardise staffing levels.



WHY BABIES' FIRST RELATIONSHIPS MATTER

THE VALUE OF PARENT-INFANT RELATIONSHIPS IN THE UK

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