

My Baby's Brain in Hertfordshire

The independent evaluation of Phase Two 2012 to 2013

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Further copies of this report and the executive summary of the evaluation can be accessed at

<http://www.hertsdirect.org/mybabysbrainevaluation>

&

<http://www.cevi.org.uk/publications.html>

Executive Summary

Background

1. **My Baby's Brain** has been under development by Hertfordshire County Council's Childhood Support Services since 2011. The initiative was *"conceived in order to convey in simple, accessible language, to parents of very young children, the principles of attachment and the direct impact they have on a baby's brain development"*. It is based on a model developed by Kate Cairns Associates (www.katecairns.com), known as *Five to Thrive*, a "5-a-day" style model. It recommends that parents focus on five 'building blocks for a healthy brain' when interacting with young babies: **Respond, Cuddle, Relax, Play** and **Talk**. These five principles are based in scientific evidence about their importance for positive child development and secure and healthy relationships, as well as their relationship with optimal brain development in the early years.



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2. In its second Phase (2012-2013), My Baby's Brain was centred around a one-day structured course delivered by trainers from Kate Cairns Associates to nearly 400 staff working in early years services across the county. Training was delivered in multi-agency groups of around 30 practitioners, comprised of approximately equal proportions of staff from health professions and children's services. Trainees mainly included children's centres staff and managers; health visitors and their managers; and a smaller group of social workers. The multi-agency approach was a key feature of the design, intended to ensure that all practitioners working in early years across the county would be aware of and able to use the same messages when working with local parents. Training was paid for by the council, backed up by materials for practitioners and for parents, and informal optional 'practice-sharing' events hosted by the council were held as follow-ups to the training. There is also a webpage hosted on the council's main website; www.hertsdirect.org/mybabysbrain.
3. My Baby's Brain was originally conceived as a universal approach, suitable for all parents in the local population, regardless of need. However over time its use has been extended to targeted groups of families with additional needs, particularly by children's social workers and Children's Centre staff. 'Embedded' use was described as the use of the messages and materials of the initiative woven into routine interactions with parents in a low-key, naturalistic way (for example, by introducing one or more of the five messages into conversation with parents during routine work in Children's Centres, home visits and baby clinics); 'structured' use implied the use of planned activities and sessions such as group discussions, and more explicit styles of delivery of the messages and materials. Both styles of delivery were widely used by practitioners irrespective of setting (universal, and targeted) or professional background (health or children's services).
4. The evaluation explored the **outcomes of the initiative for practitioners** from a range of agencies that participated in the training, and collected data from practitioners, parents, and strategic stakeholders from agencies within Hertfordshire. It also explored the **implementation of the initiative** at multiple levels: practitioners, services and the wider system of children's services within the county. Measurable impact on parents was not a strong focus of the research at this stage, in advance of full understanding of the implementation issues.
5. The research was underpinned by the use of theoretical frameworks drawn from intervention research and implementation science, and the methods included:
 - a survey of over 200 practitioners trained in the early part of 2013, using measures of change in knowledge, attitudes and practice repeated at three time points (pre-training, post-training and at 2-4 months follow-up);
 - 28 qualitative in-depth interviews;
 - analysis of costs data.

Outcomes for practitioners, and use in practice

Meeting a need

6. My Baby's Brain proved to be a highly popular initiative with early years staff and strategic stakeholders across the county. The survey of practitioners confirmed that it was meeting an important need. Although nine in ten practitioners already understood the importance of attachment to infant development, and six in ten used that knowledge 'a little' in their work prior to training, only 13% were using that knowledge 'a lot'. A large proportion had relatively little prior training in the theory or science of baby brain development. Children's services staff had least prior exposure to this field of science (40% had no prior training in this area), but health staff also reported gaps (21% had no prior training). Staff attending training were enthusiastic about the initiative, even where they viewed mainly it as a refreshment of existing knowledge rather than as a completely new area of learning.

Outcomes of training

7. My Baby's Brain was a successful and effective initiative in terms of outcomes for practitioners trained. In a few specific areas there were more substantial positive changes in the children's services practitioner group than for health practitioners, but these were matters of degree only and the overall picture was positive for all those trained.
8. Overall, the surveys showed that practitioners reported statistically significant positive changes in all dimensions of knowledge and attitudes. The changes were substantial for all types of practitioners, and notably, all the changes reported were sustained at follow up, which in some cases was at a time point three to four months after the training event. Almost all reported they had learned either 'a lot' (49%) or 'a little' (48%) during the training. After the training, almost all (nine out of ten) said they would use the five messages in their work with parents and would talk to colleagues about the initiative; eight in ten (79%) expected to change the way they worked with parents as a result; and seven in ten (71%) expected the quality of their practice to improve.

9. There were **statistically significant and sustained increases** in the following aspects of **knowledge and confidence**:

- ✓ Understanding the importance of attachment as a critical survival mechanism for small babies
- ✓ Knowledge of how babies' brains develop
- ✓ Understanding of the ways in which parents can affect their babies' development
- ✓ Confidence in knowledge about the theory and science of baby brain development
- ✓ Confidence in talking to parents about baby brain development

10. At follow-up two to four months after the training, there were also encouraging **changes in reported practice**:

- ✓ In the surveys, 90% said they had been able to use the five messages (25% with 'all' parents and 65% with 'some' of the parents they worked with)
- ✓ In the surveys, 50% said their way of working had 'changed', and 58% thought their practice had 'improved'
- ✓ There were numerous examples given in qualitative interviews of how practitioners felt the training had given them both the language and the confidence to talk with parents about this aspect of parenting and infant development.

How My Baby's Brain worked in practice

11. The research very much suggested that practitioners, in creatively and flexibly extending the original universal design of My Baby's Brain, were managing to extract considerable additional value out of the approach. Data from a small number of parents and from the qualitative interviews with practitioners suggested that in a universal setting, the impact of My Baby's Brain was mainly to reassure, reinforce and amplify warm and responsive parenting that was already present. With families in targeted groups, it served to normalise and explain the value of responsive parenting, and to highlight more clearly for struggling parents where they could make positive changes. The data suggested that parents could understand and retain the messages passed on by practitioners, and some had gained confidence and reassurance and even modified their behaviours. In universal settings these findings suggest that especially for first time or anxious parents, or those who have read or heard contradictory information about caring for babies, My Baby's Brain can be a helpful source of clarity and confidence. In addition, practitioners believed they were noticing behavioural changes arising out of having used the Five to Thrive messages with parents, with the clearest observations being reported in relation to families in targeted settings.

12. In targeted work, some stakeholders felt that the Five to Thrive messages might have useful applications in helping parents who were struggling to understand what was expected of them when there were concerns about safeguarding. Some staff were actively blending the Five to Thrive messages with other approaches as part of a toolkit of support for families with complex needs, sometimes in co-ordinated multi-disciplinary ways, and sometimes in relation to children who were well above the 0-3 age range for which My Baby's Brain was initially intended. Some social workers were using their new confidence and knowledge of the evidence on child development to improve the detail and quality of their reports to courts.

Costs of My Baby's Brain

13. Overall the costs of implementing Phase Two were not high. Using data provided by Hertfordshire County Council we were able to calculate the total costs of the whole initiative, to the end of the Phase Two evaluation, including standard hourly 'unit costs' of staff time in different professional groups.
14. Including all the costs of development and evaluation in both Phase One (the pilot Phase 2011 to 2012) and Phase Two, and including all the costs of staff time for development, and the unit costs of trainees to attend training in both Phases, the cost per practitioner trained in Phase Two was **£479.00**.

Implementation

15. Research increasingly shows that the quality and effectiveness of the implementation of services and initiatives is a determining factor in outcomes for service users, independent of content. Thus, in addition to outcomes from training, the research also explored the extent of readiness for, and the goodness of fit of, the new innovation amongst staff, services and the wider existing system. This helps us to understand what kinds of challenges could lie ahead when 'scaling up' My Baby's Brain in the next stage of development and roll-out.
16. All stakeholders were emphatic that My Baby's Brain was conceived as an 'approach' rather than as a formal programme or formal model of intervention. Thus, although considerable work had been done to develop the content of the approach in terms of the Five to Thrive messages and their supporting materials, the precise form in which these 'core components' should be combined, and the decisions about what to treat as fixed, and what to treat as variable, was left open. Practitioners were able to experiment and develop their own ideas.

17. The implementation of My Baby's Brain had many strengths. The ethos and broad logic was generally liked and endorsed, with strong credibility or plausibility attached to its basis in scientific evidence. There was wide agreement on the simplicity, clarity and accessibility of the Five to Thrive messages, which were recognised to have condensed a complex area of theory and evidence into a concise set of principles that practitioners and parents alike could comprehend. The flexibility meant that for confident agencies and confident practitioners, there were myriad ways to use My Baby's Brain in practice. The supporting materials that were produced to accompany the training were widely admired, and there was demand for a greater supply.
18. There were, however, some limitations arising from this flexibility. Although the Five to Thrive messages themselves were clear, most interviewees stressed that other aspects of implementation were likely to be key to effectiveness, beyond simply knowing and advertising or repeating the five messages to parents. In other words, the five messages were important content, but it was not always obvious to practitioners how that content should be used. In particular, My Baby's Brain clearly requires sophisticated practice skills to support effective delivery of the content, for example: excellent communication skills; empathy and relationship-skills; the ability to weave in intentional content in practice interactions in ways that seem entirely natural; the ability to identify opportunities 'in the moment' to address key issues; and critically, the ability to model the kind of responsive interactions that My Baby's Brain is advocating to parents. These, too, may be 'active ingredients' of the implementation model that would benefit from specification as part of the approach.
19. The training for My Baby's Brain was generally well received, but there was a clear mandate to deepen and extend the depth and detail of the scientific content, which may not have been equally well-delivered in some sessions. The experience of training in multi-agency groups was widely appreciated, though some felt that the training could have been better tailored to accommodate those with higher levels of career experience. The survey of practitioners showed that variation in the quality of trainers impacted on trainees' intentions to use the training in future as reported immediately post-training, although this seems not to have resulted in major differences in actual use of the messages in practice, when reported in the follow-up period.
20. Analysis of the different dimensions that bear on implementation effectiveness – people, organisations and the system – showed that there was a positive degree of implementation 'readiness' at all levels (except in regards to the lack of readiness of the implementation model, as described above) and that the 'fit' of My Baby's Brain to practice and strategy within the county was largely good. This almost certainly helped to carry the approach successfully forward.

21. At the organisations and systems level, key favourable factors were the low resource requirements; the fact that multi-agency working and partnerships were already familiar modes of working to staff and managers in Hertfordshire; and a generally positive approach to service innovation in general.

22. During Phase Two both children's services and the health visiting service were strongly engaged by the initiative and there was active leadership support both at the organisational and systems level. In children's services, almost everybody could see ways in which My Baby's Brain was or could be coterminous with existing operations and strategy. Children's services staff mostly described feeling confident in having the practice skills necessary to deliver the approach, and there were many vocal champions of the initiative. Child and family social workers, who were not at the outset envisaged as key proponents of the approach, also became keen advocates, seeing many applications for My Baby's Brain in their work with more vulnerable families. This may have been less true for health staff and agencies. Although findings were mixed, there were hints that even though health visitors were actively mandated to attend the training in Phase Two, the overall on-going commitment of health might be more fragile than that of children's services. There appeared to be more lukewarm or arms-length support by team leaders and a lack of widespread availability of strong champions. There were also some suggestions that some health visitors struggled with the necessary time and opportunity, and perhaps also the skills, to weave the My Baby's Brain approach into their other routine daily practices. This may raise challenges for retaining the engagement of health visitors in the future.

23. System mapping also showed that not all parts of the wider system engaged equally well in Phase Two. Midwifery in particular proved impossible to engage, and other services that might in future be important (GPs, early education, nursery and child minding services) had also not yet been reached by the end of the evaluation. Phase Three will benefit from exploration of how better to influence the unreached parts of the wider system of early years services in Hertfordshire.

Key recommendations

Several specific recommendations arose from the research:

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1. There is strong support from this research for continuing to develop and refine what has clearly shown itself to be a successful and low cost approach for improving practitioner knowledge, confidence and practice in working with parents of very young children.
2. The multi-agency framework should be retained and extended, preferably with energetic attempts to draw in champions from health who can help to craft the approach to achieve the best possible fit with health professionals' existing practice skills and health services' ways of working. There appears to be a less optimal 'fit' for health, and the concern is that if mandatory and free attendance at the training for health staff is withdrawn, health as a sector may gradually disengage.
3. Although further efforts to engage midwifery and GPs should be made, the development team may need to secure influential champions in these professions first and foremost.
4. The great flexibility of the approach that has so far developed is a valuable strength, allowing the use of My Baby's Brain in multiple settings and circumstances. This strength needs to be retained. However, before scaling up in Phase Three, we recommend that further work is undertaken to clarify and specify more clearly what are the 'active ingredients' (or 'core components') of the approach and how these ingredients can be combined together within different implementation or delivery models. For example, beyond understanding and communicating the five messages, what specific skills are required in order for practitioners to deliver them successfully? How should the five messages be combined, and how should this vary across different professional settings? When is embedded, as opposed to structured use most appropriate? Differences in the implementation model for preventive universal settings as opposed to the model that is emerging when working with higher-need, targeted groups of parents should also be specified further.
5. This process of specification will be aided by the development of a logic model that captures the 'theory of change' for My Baby's Brain. This should be co-constructed by staff from the different sectors and job roles who are involved in its delivery. The products will undoubtedly introduce new elements into the existing model, and will enable the approach(es) that is/are 'My Baby's Brain' to be quality assured and robustly evaluated for impact in the future. Some detailed questions that may be

useful to consider as part of this process are further discussed in the conclusions of the main report.

6. The training will also benefit from a review, and consideration to the possibility of training beyond 'basic' to more 'advanced' levels may be timely. It will be useful to specify what specific skills and qualities are required of My Baby's Brain trainers. Access to resources (for example, further reading) should be maintained and continuously updated, and the My Baby's Brain website, which was not well-known to or well-used by practitioners at the time of the research, should be the main hub for this activity.
7. There were many calls for more structured opportunities for the sharing of practice experience in using My Baby's Brain, post-training. Participants suggested these could be done in single agency or even single-team settings as well as in multi-disciplinary contexts, in order to maximise the development of shared and mutually supportive ways of implementing My Baby's Brain at both basic and advanced levels, and reflecting the different settings in which practitioners are working.
8. Multi-agency engagement was largely regarded as having been a success story for My Baby's Brain. However, it may be that in the next Phase of the project, a specific and very active strategy to reach other parts of the system will be required. Whilst universal and even targeted children's services had taken the approach thoroughly to their hearts, health possibly have not, and could easily find that other competing priorities in the coming months and years push their commitment to My Baby's Brain into the background. This will probably require a deeper analysis of the fit of the approach to the practice as usual of health staff (both community and acute services), especially those who feel very time-pressed. It will also require closer attention to the specificity of the implementation model and how it can be used in all the different contexts of early years and family work to add value to existing practice across the county.

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PART ONE

BACKGROUND

In this part of the report, we give an overview of the My Baby's Brain initiative and its key features. We also set out the methods and focus of the evaluations in Phases One and Two, the reach and costs of the initiative, and the evidence of need for the initiative within the county.

1. Introduction

1.1 My Baby's Brain: overview

My Baby's Brain is an initiative developed by Hertfordshire County Council's Childhood Support Services, described by the council as "*conceived in order to convey in simple, accessible language, to parents of very young children, the principles of attachment and the direct impact they have on a baby's brain development*" (Hertfordshire County Council; www.hertsdirect.org/mybabysbrain). It began in 2011 and was piloted ('Phase One') in 2012 in four one-day training sessions and as part of four antenatal classes and evaluated by the Family Matters Institute who reported on encouraging results in June 2012 (See below, Phase One pilot results). Phase Two, the subject of this report, covers the period from April 2012 to March 2013.

My Baby's Brain aims to equip practitioners to recognise and promote parenting styles and practices that strengthen healthy attachment and optimise the environment for healthy brain development in the years from birth to three. It is an *approach* to working with parents, rather than a 'programme', centred on training and supporting practitioners working in early childhood services to use knowledge about attachment processes and emerging evidence from the science of human brain development when they work with parents. It was developed to be used as a universal, preventive community-based parenting approach, suitable for use with all parents in the community, although it has increasingly shown its relevance to working in a more targeted way with vulnerable families or families of children in need. Primarily targeted at those working in Children's Centres, and health visitors, it also reached social care and social work staff, pre-school and library service staff, and school nurses and educational psychologists during the course of this evaluation.

The content of My Baby's Brain is based substantially on the '**Five to Thrive**' model developed by Kate Cairns Associates (<http://www.katecairns.com/>). Five to Thrive takes an approach familiar to the UK population from public health campaigns such as the NHS's '5 a Day' (a campaign to encourage everyone to eat at least five portions of fresh fruit and vegetables each day). It recommends that parents focus on five '*building blocks for a healthy brain*':

Respond, Cuddle, Relax, Play and Talk.

In a one-day training course, backed up with a written guide for practitioners, and another simpler one for parents, participants learn about the basic principles of attachment and

infant attachment behaviours, and about how parenting that promotes and utilises these five 'Five to Thrive' principles can support the developing infant brain.

Figure 1 Guides and materials developed for My Baby's Brain



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1.2 Stakeholder aspirations: the purpose of My Baby's Brain

In developing the My Baby's Brain approach, Hertfordshire's aspiration was for an initiative that was universal in its reach to front-line practitioners working with parents, that would to some extent standardise and unify practice across different sectors, agencies and professional groups, and would be simple enough to work for practitioners at all levels of experience working in a wide range of settings. There was a clear desire not to develop a formal programme, but to create a broad framework or a broad, flexible **approach** that would complement and join up existing practice across a range of services:

“We’ve not developed it as a specific programme that we would then expect workers to deliver, but more as an approach, where you would expect to see that approach within whatever work they were doing”

Strategic Stakeholder

As the comment below illustrates, many thought of My Baby's Brain as a **‘way of being’** with babies as much as (if not more than) than a ‘way of doing’ child care. They aspired to shift the culture of parenting in the county towards a more child-centred focus emphasising spending time in simple, enjoyable and warm interactions rather than focusing on specific developmental goals:

“What we were trying to achieve wasn’t just a one-off point to address a particular issue. It was just a way of being with your baby. It was (simply) the recognition that babies need the five to thrive element: it’s OK to do it. It’s fine to talk to your baby sing to your baby and read to the baby even though they are so young.... I’d like to see it become part of the vocabulary of all new Mums”

Strategic Stakeholder

Strategic stakeholders involved in the planning of the initiative were aiming for a universal, public health approach and although Children's Centres were very much envisioned as at the core of the project, the multi-agency nature of My Baby's Brain was a key feature of its design, because, as one stakeholder expressed it: *“If you’ve got a set model which everybody agrees on... then what you’re doing is providing a holistic approach”*.

“It needed to be a multi-agency approach because it’s no good Children's Centres saying one thing, and health visiting or some other service working directly with the same parents saying something that would be contradictory. So it needed to be done as a Hertfordshire-wide, multi-agency front-line worker approach it’s something that we’ve always tried, always aspired to, but there’s lots of difficulties and practicalities that get in the way”

Strategic Stakeholder

The aspiration for implementation of My Baby's Brain was that practitioners would use the learning in their daily work in their own ways: in the council’s terms, they would *“weave the Five to Thrive message into their daily interactions with parents”* (Hertfordshire County Council 2012a). Since the participating practitioners were expected to come from different professional backgrounds and agencies, (some employed by the local Health Trust, some by the local authority) and to be working in both community and clinic-based settings, and engaged in all varieties of one-to-one work, group work and family support and case work,

there was no pre-determined 'implementation model'; participants were encouraged to consider for themselves how the Five to Thrive messages might be best transmitted to parents with whom they came into contact, and to contribute to an on-going conversation about the most effective ways to embed the learning into daily practice. Thus, long term outcomes were defined for the initiative at the outset relatively broadly; see Box 1

Box 1: early articulation of outcomes for My Baby's Brain

- To train as many professionals as possible, from relevant agencies, who have direct contact with parents of children 0-3 in order to increase their knowledge of attachment and its impact on early infant brain development, and their skills in conveying this to parents.
- Through the above, to reach as many parents as possible of children aged 0-3 and to convey the "Five to Thrive" information to them
- To achieve an increase in the knowledge of parents of young children, 0-3 of the importance of specific attachment behaviours for the healthy development of their baby's brain and therefore for healthy social and emotional development.
- To create a general awareness among parents of the "Five to Thrive" 5-a-day message, in order to facilitate the above.
- To achieve an increase in confidence of those parents to incorporate these behaviours into their everyday life in the home environment.
- The ultimate outcome of all of the above is that babies will have benefited from secure attachments and responsive, stimulating, attuned and soothing parenting and whose brains will therefore will have developed the necessary pathways to enable them to function successfully, socially, emotionally and cognitively through childhood and adult life.

1.3 Design features: content and implementation

The design of the approach was relatively low-intensity and low cost. It was based around a one-day training course, paid for by Hertfordshire County Council, which was delivered in multi-agency groups of about 30 people, at various locations in Hertfordshire, by an expert trainer employed by the developers, Kate Cairns Associates. Those participating in the training received a stock of booklets designed for parents and a more detailed version of the same booklet for their own use, and were given time-limited access to a website provided by the developers with additional resources. They could get access to promotional

materials such as pull-up posters and banners to use in practice settings. Hertfordshire County Council also held a number of follow-up 'practice sharing' events in spring and summer 2013, although not all of those initially trained attended these later sessions.

Attendance at training was not mandatory, but invitations were sent out by the project lead at Hertfordshire County Council, who provided the training free of charge. Demand for places was high, with extra sessions provided over and above those originally planned. In the end, approximately 400 places were made available. Managers of Children's Centres recommended staff to attend, and in the case of Health Visitors, a senior manager actively directed that staff attend by personal communication to team leaders. Other staff from other services signed up voluntarily. Although there was no intention to try and train all staff working in early years in the county during this Phase of the Project, integral to the model was the expectation that those trained would talk to colleagues and share practice ideas and materials, thus cascading learning, to some degree, throughout teams.

The box below shows the course outline developed by Kate Cairns Associates:

Box 2 Content of the My Baby's Brain one-day training session

Session 1 Attachment and brain building

- **Outline of attachment theory as a key infant survival mechanism for eliciting care giving**
- **Three key processes supporting brain development**
*Soothing * Stimulation * Mindfulness*
- **Five key steps in attachment**
*Claiming * Physical attunement * Emotional attunement*
** Pre-cognitive patterning * Regulatory patterning*
- **How to identify signs that needs are not being met**
- **Building resilience**

Session 2 'Five to Thrive' for Life

- **Key parenting activities that contribute to brain development at each stage of attachment**
*Respond * Cuddle * Relax * Play * Talk*

Session 3 Implications for practice

- **Promoting the five activities with parents**
- **Using Five to Thrive in your setting**

In practice, as we shall go on to discuss, the evaluation showed that My Baby's Brain was being used in a wide variety of ways, which we categorise broadly in the discussion that follows as 'embedded' or 'structured'. Embedded use of the messages with parents involved the 'weaving in' of the five messages in a naturalistic way into the normal conversations and interactions that practitioners had with parents in their usual practice settings. Structured use primarily involved the development of specific group sessions covering one or more of the five messages, sometimes incorporated into another session (e.g baby massage), and sometimes set up especially for the purpose. It could also be used in social care case work and family support, with practitioners using the Five to Thrive framework as a tool to assess and support parents with particular needs to tackle specific areas of parenting and parent-infant relationships¹.

Examples of each of these ways of using My Baby's Brain in practice can be found throughout later parts of this report.

During the course of the Phase Two initiative, Hertfordshire also developed content for their website about My Baby's Brain, with pages designed for parents as well as practitioners:

<http://www.hertsdirect.org/mybabysbrain>

Since Phase Two began, a number of 'spin-off' activities have also been developed by the council. These activities were not a focus of the evaluation, but included:

- 'My Teen Brain' (for practitioners working with parents of adolescents)
- 'Relationships Build Brains' (for early education and childcare staff working in nurseries etc)
- A conference attended by 140 child-minders in Hertfordshire
- Inclusion of information about My Baby's Brain in an NCT newsletter sent to parents throughout the county.

¹ The evaluation was not able to collect detailed data from some groups of practitioners who had attended the training, including library services, school workers, Bookstart and Educational Psychology, so we are unfortunately not able to give examples of how these practitioners were using My Baby's Brain in their work.

2. The evaluations of My Baby's Brain: Phase 1 Pilot, and Phase 2

2.1 The Phase 1 evaluation

The Phase One pilot of My Baby's Brain was evaluated by the Family Matters Institute in a report to Childhood Support Services in June 2012. The design of the pilot evaluation was somewhat different to that for Phase Two. It collected data using qualitative interviews and a survey involving pre-training and post-training measures, with 71 practitioners attending four multi-agency pilot training and development days, and just over 100 parents who had been in contact with trained practitioners, or who had attending antenatal groups where the Five to Thrive concepts were discussed. It found positive results including significant changes in practitioner knowledge and confidence, and improvement in parents' understanding of the importance of the five messages. Practitioners who took part were enthusiastic and some reported changes to practice after the training. These positive findings encouraged the Council to go to the next stage of development of the initiative, during which the approach, training and materials were further developed based on feedback from participants.

2.2 The Phase 2 evaluation

The Phase Two evaluation was multi-method but relatively small scale. It was led by the Colebrooke Centre for Evidence and Implementation, collaborating with the University of Warwick Medical School. Its aim was to provide information that would evaluate the success of Phase Two of the initiative, and also provide information to help inform thinking about future scale-up.

2.2.1 Objectives

The objectives of the evaluation in Phase Two were two-fold:

1. To assess the **impact on participating practitioners' knowledge, attitudes and practice ('KAP')**, both immediately after the training events and at follow-up period some weeks later
2. To explore the **implementation context** of My Baby's Brain, at both strategic and operational levels, including an approximate assessment of its costs and reach (numbers of practitioners trained, and numbers of parents potentially reached by trained practitioners)

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graph LR; A[inputs (resources)] --> B[outputs (activities)]; B --> C[outcomes for practitioners (changes in KAP)]; C --> D[outcomes for parents]; D --> E[outcomes for babies]; F[1st-order (implementation) outcomes] --> C; G[2nd-order (service-user) outcomes] --> D; H[3rd-order (service-user) outcomes] --> E;
```

Phase Two evaluation

Future evaluations

inputs (resources)

outputs (activities)

outcomes for practitioners (changes in KAP)

outcomes for parents

outcomes for babies

1st-order (implementation) outcomes

2nd-order (service-user) outcomes

3rd-order (service-user) outcomes

2.2.2 How we measured impact on practitioners

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- A **training survey** module, designed to capture changes in knowledge, attitudes and practice of over 200 practitioners undertaking training in early 2013 using knowledge, attitudes and practice ('KAP') measures, repeated in a 'pre', 'post' and 'follow-up' test design:
 - **immediately before** the training, to assess KAP prior to the training session
 - **immediately after** the training, to assess changes in knowledge, attitudes and practice intentions resulting immediately after participating in the session
 - **eight to sixteen weeks after** the training, designed to assess sustainability of change in the short to medium term period after the training
 - a **comparison** group, utilising a wait-listed sample of 89 trainees who were surveyed once only, several weeks prior to their booked training session, to provide a simple '**counterfactual**' assessing KAP in the absence of the training, and providing a further means of validating the results obtained for the post training and follow-up surveys
- A qualitative module of in-depth **interviews with practitioners** who had been trained (n15)
- A qualitative module of in-depth **interviews with strategic and operational management staff ('strategic stakeholders') in health and children's services agencies** in the county (n8) including health visiting, and children's social care and community services
- Qualitative **interviews with a very small number of parents and carers** who had been exposed to the messages (n4)
- An **assessment of the costs** of developing and delivering the initiative, using data from the evaluation and unit costs provided by the County Council
- One in-depth **interview** with a member of the team at **Kate Cairns Associates** (the programme developers who developed the Five to Thrive Model and delivered the training)

We make comparisons throughout the analysis between two broadly defined groups of practitioners: '*Health*' (meaning mainly health visitors, community nurses, student health visitors, educational psychologists²); and '*children's services*' (meaning mainly Children's Centre staff, social workers and other children's social care staff, and family support workers). When discussing survey results, where we report that differences were 'significant' between these groups, this means they have been tested using statistical procedures that confirm the differences were unlikely to have occurred by chance. We also checked the characteristics of the training survey sample against the profile of all those trained and of those in the counterfactual (waiting list) group, in order to check that this group were not unrepresentative of the wider group of those trained in ways that might

² Educational Psychologists in Hertfordshire are employed by Children's Services (not the NHS); however due to the scientific basis of their training we have classified the small number who attended My Baby's Brain training for the purposes of analysis as more similar to the health group than the children's services/social care group.

introduce systematic bias into our estimates. We report the few (small) differences that we found only where these are material to interpretation of the training surely results.

The boxes below summarise the areas covered in the surveys and in qualitative depth interviews:

Box 3 Dimensions of change and feedback covered in the surveys

1. Changes in Knowledge

- Importance of attachment as survival mechanism for infants
- Knowledge of how babies' brains develop
- Knowledge of how parents can affect baby brain development
- Know how to talk to parents about baby brain development
- Whether learned anything new
- Recall of the five messages at 8-16 weeks post

2. Changes in Attitudes (Confidence)

- Confidence about theory and science of infant brain development
- Confidence in talking to parents about baby brain development
- Intention to follow up with further study
- Intention to talk to colleagues about the messages

3. Changes in Practice

- Intention to use the five messages
- Expectation that practice would change
- Expectation that practice would improve
- Actual follow up (reading etc)
- Actual talk to colleagues
- Actual use of five messages
- Whether practice changed
- Whether practice improved

4. Satisfaction with training (post-test only)

- Lived up to expectations
- Achieved what they hoped to achieve
- Right amount of detail
- Would they recommend to others

Box 4 Topic Guide for practitioner depth interviews

Topic Guide for practitioner depth interviews

1. Understand impact on practice

- **Describe how MBB is used in practice**
- **Understand, from the perspective of those trained, whether and how training has altered practice**
 - Explore impact, if any, of MBB training and materials on knowledge, attitudes and practice when working with parents
 - Identify whether and how MBB and 'Five to Thrive' packaging have 'added value' to usual practice
 - Gauge extent and level of practice fidelity to MBB in direct work contexts (e.g whether all 5 messages are used equally; whether practitioners deliver all or part of the messages, and to what extent they understand the theory and science behind MBB)

2. Understand implementation factors in practice context

- **Describe relevant implementation drivers within the practice context in two dimensions of Active Implementation Framework (competencies and organisational drivers)**
- **Understand how implementation drivers hinder or enable the use of MBB in practice**
 - Explore competency drivers (practitioner factors)
 - Explore organisational drivers (internal organisational factors & external systemic factors)
 - Identify whether/how these drivers operate to facilitate or hinder practitioners use of MBB messages in daily practice contexts

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Box 5 Topic Guide for strategic stakeholder depth interviews

Topic Guide for strategic stakeholder depth interviews

1. Understand awareness of and support for MBB

- Describe MBB purpose, design and delivery (what is the 'it'?)
- Describe how MBB is used in practice in their division/agency (what must practitioners do to deliver 'it'?)
- Explore expectations of outcomes & how MBB might 'add value'
- Explore to what extent interviewee involved in MBB planning, development, delivery

2. Understand fit of MBB with implementation key drivers

- Fit with strategy and leadership drivers (strategic and policy level) for their service
- Fit with organisational and administration drivers (operational and management level) for their service
- Fit with staff competency drivers (front-line practice level) for their service

3. Overview of system readiness to accommodate and sustain innovation

- Overview of key implementation enabling factors for division/ agency
- Overview of key implementation barriers for division/agency
- Overview of how MBB compares to other innovations, and likely prospects for roll-out
- Implementation supports that are/would be desirable for further roll-out

Box 6 Topic Guide for parent depth interviews

Topic guide for qualitative interviews / focus group with parents

1. Understand how the MBB messages are received by parents

- explore whether parents are aware of the MBB model: underlying theory; 'Five to Thrive' model; individual messages
- explore how parents experience the 'Five to Thrive' model (was this a discrete session / threaded through other activities, how was it introduced, whether multiple information sources / uses)
- explore reactions and understanding

2. Understand the impact of the MBB initiative on parents

- explore impact on parental knowledge and confidence
- explore whether and how it affects parenting, examples of how parents use the messages
- any negative aspects eg parental guilt
- what do they like / dislike about the 'Five to Thrive' model

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2.2.3 How (and why) we explored implementation

Effective implementation - operating through *implementation outcomes* reflected in improved or changed practice by staff working with parents - is a pre-requisite to the achievement of outcomes for parents and children. Without an understanding of implementation outcomes, no study of service-user outcomes (i.e., what has changed for the ultimate beneficiaries) can be sure that it is measuring the right sort of changes, or whether if changes they are found, they are likely to be due to the new service being studied or something else. Put simply, implementation is the process of turning a concept or idea into a reality, and implementation scientists such as Fixsen et al (2005)³ define implementation as: "*a specified set of activities designed to put into practice an activity or program of known dimensions*". Implementation has both strategic and operational dimensions, and focuses not only on the detail of how specific practices are put in to action but also on the systemic context in which new activities, programmes or approaches are embedded. Whilst the focus on the micro-level detail of implementation has often been the subject of research (and is often termed 'process evaluation'), specialised implementation researchers have begun to focus in much more depth on the macro-level analysis of systems contexts, realising that this is also vital for understanding how and why services are implemented successfully. We now know that even the most robustly theory-based, best

³ Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M. & Wallace, F. (2005). *Implementation Research: A Synthesis of the Literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231). <http://www.fpg.unc.edu/~nirn/resources/publications/Monograph/>

designed, best resourced innovations will be limited in their impact if the wider system rejects or marginalises them. Innovations are usually introduced, as was My Baby's Brain, as stand-alone, pilot or demonstration projects. However they cannot continue to exist in this form for long. If they are to become mainstreamed and more widely implemented they must, eventually, become 'hosted' by the system rather than existing on the outskirts of the system as 'ghost' (marginalised) entities. In other words, as has been noted: '*systems trump programs*' (Fixsen et al op cit) all too often. In the longer run, if they seek sustainability in any form, successful innovations have to make the transition from separately resourced and carefully managed pilots to becoming part of the 'business as usual' of the systems in which they are situated. The likely prospects for My Baby's Brain to become embedded in this way will be much more easily understood by scrutinising how well or how easily the Phase Two initiative moved through the different dimensions of an implementation model suggested by the findings from the research.

2.2.4 A model of innovation for My Baby's Brain

Therefore, drawing on and adapting existing implementation theory models and frameworks for data collection, beginning with those developed by the National Implementation Research Network (NIRN) at the University of North Carolina in the United States, we developed a specific model of the implementation of innovation for My Baby's Brain which we have used to structure the analysis of the implementation aspects of the study, and which is shown overleaf (Figure 3).

Threaded throughout the model are two key conditions that are often thought to determine whether innovations are implemented effectively. These are the conditions of 'readiness' and 'fit'. **Readiness** refers to the extent to which the staff, agencies or wider systems are properly prepared for the activities necessary for effective implementation. In the case of My Baby's Brain, readiness would imply that the case for the new innovation is made and accepted; its benefits are understood and agreed; people, services and partners are willing for and open to the change that embracing My Baby's Brain implies; and a clear, plausible model of what delivering (or putting My Baby's Brain into practice) involves has been developed and articulated. These combined elements are sometimes referred to as 'operationalising' a model and are known to be a vital determinant of later effectiveness of second order outcomes.

Fit refers to the extent to which a new innovation complements and can be accommodated within existing models of service delivery or practice. In the case of My Baby's Brain, when we talk about 'fit' we are talking about how easily practitioners, their agencies and the wider system of services for children in the county were able to incorporate the Five to Thrive constructs within their usual ways of working with parents, and what (if any) adjustments to 'business as usual' have been required (or may in future be required) to

make the fit optimal. Fit may pre-exist, or it may have to be created, but without it, implementation generally fails.

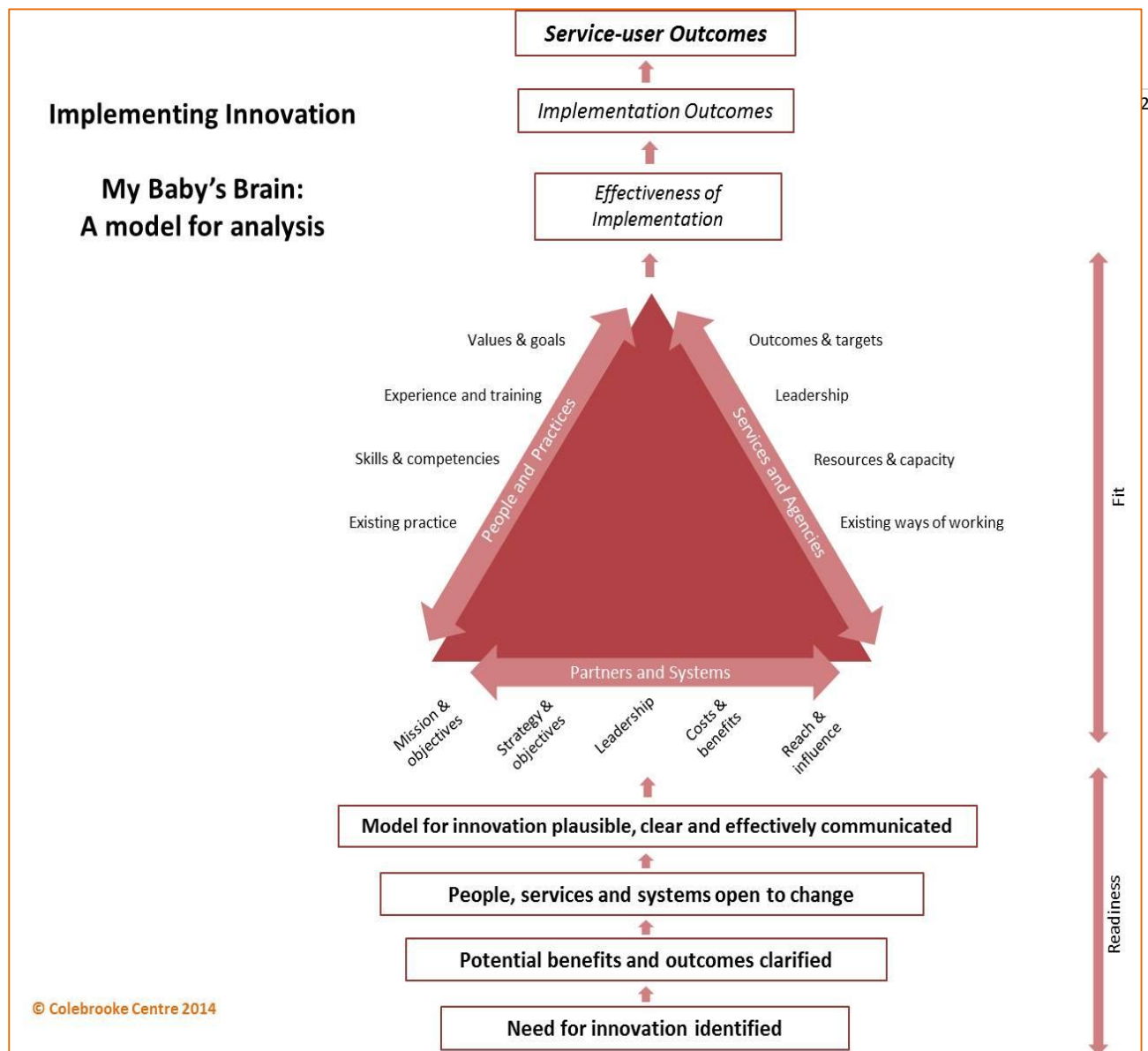
Our analysis of 'fit' draws on the core of the model in Figure 3, which is represented as a triangle, each side representing one of three overarching dimensions of implementation fit. The three dimensions are: **people and front-line practices** (i.e. staff and practitioners and their attitudes and behaviours – in this case, factors connected to individual staff experience, skills, competencies, readiness and willingness to implement My Baby's Brain); **services and agencies** (i.e. factors connected to service and agency structure and operations, resources and capacity, leadership, and professional culture in regards to innovation and change); and **partners and systems** (factors associated with the wider system of service for children and families in the county and nationally, including strategy, leadership, the costs and likely benefits of the innovation, and the reach to different parts of the system or degree of engagement with My Baby's Brain).

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Using interview data obtained from in-depth interviews with key stakeholders at both strategic and operational levels who were working across the wider systemic context for My Baby's Brain in the county (referred to as 'strategic stakeholders' throughout), integrated with data from qualitative interviews with participating practitioners that illustrate front-line, 'on the ground' aspects of implementation, we explored these various aspects of readiness and fit of My Baby's Brain in the discussion that follows in Part Three.

Inevitably, in new innovations like My Baby's Brain that are still being tested and developed, some aspects of readiness and fit may be less than optimal. However, our model is intended not as a counsel of perfection, but as a framework for data collection, analysis and interpretation, and as a helpful aid to thinking about how implementation might be improved and refined if the initiative grows and spreads.

Figure 3 A model of innovation for My Baby's Brain



3. The reach and the costs of My Baby's Brain

3.1 Who was trained: characteristics of practitioners trained in Phase Two

During October 2012 to March 2013, a total of **395** practitioners were trained in 15 day-long sessions, in multi-agency groups of between 21 to 30 participants. The evaluation team started work at the same time as the Phase Two training session began, and collected data from **232** people participating in nine of the training sessions, held between late January 2013 and late March. Of these, **227** practitioners provided useable data for both the pre- and post-test stages (98% of those invited to participate), equivalent to 57% of all practitioners trained in Phase Two.

Participants in the evaluation were predominantly drawn, in more or less equal proportions, from health and children's services. There were no significant differences between the group participating in the evaluation and those not, nor between those in the counterfactual group and those in the main sample. Grouping the different job types by sector, approximately **46%** of the evaluation sample was drawn from **health professions** (mainly, health visiting, and community and nursery nursing); **49% were drawn from children's services** (Children's Centres, family support, social work, and also education and libraries). In addition there was a small mixed group including management staff, charity workers and those who did not specify a job role (6%).

Figure 4 shows the broad distribution by health and children's services: Figure 5 shows self-reported job descriptions.

Figure 4 Job sector of evaluation participants

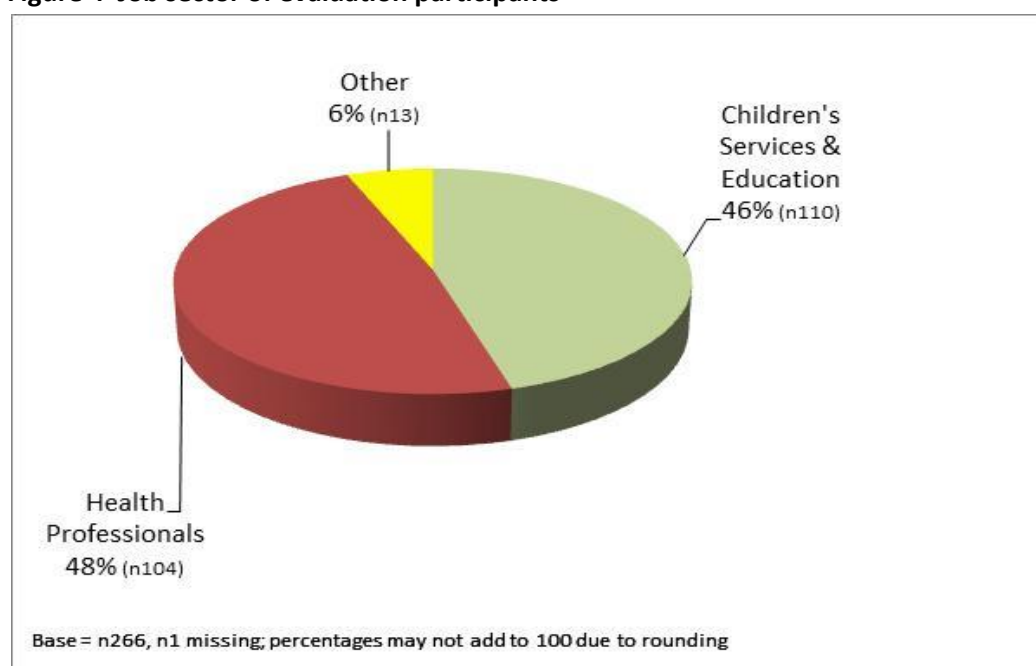
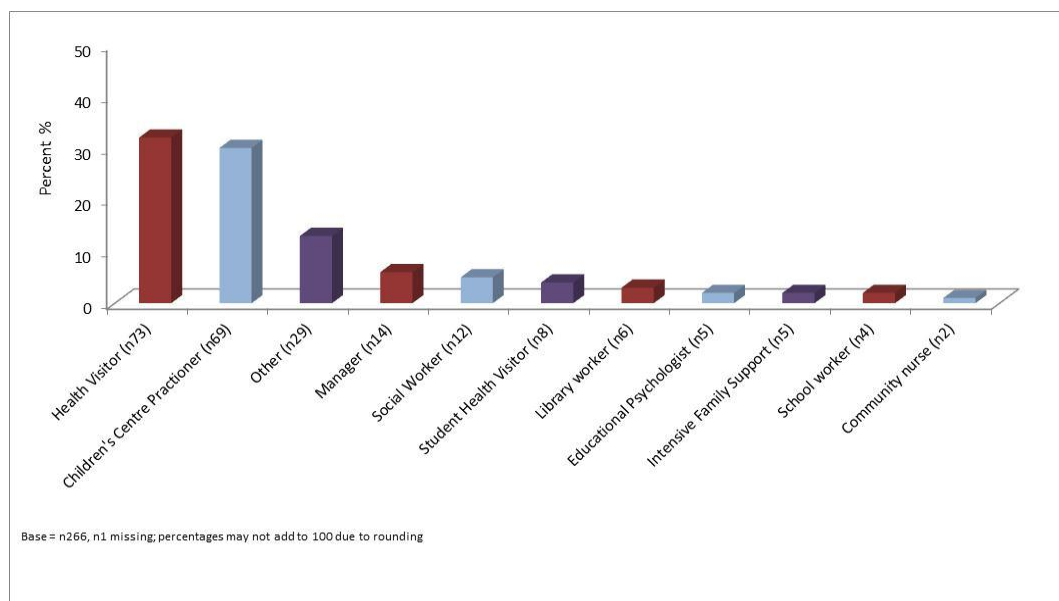
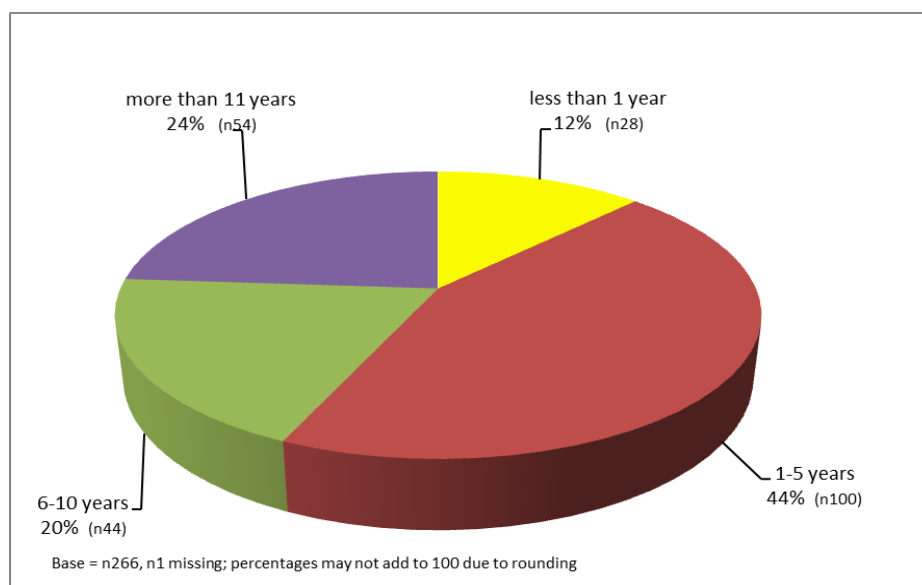


Figure 5 Self-reported job descriptions of evaluation participants.



44% of those who took part in the evaluation had been in their current role for 1-5 years, with a further 19% having 6-10 years' experience and 24% having 11 years + experience; see Figure 6

Figure 6 Length of time in current role



As the table 1 shows, the 'health' group were substantially more experienced in terms of their current role than their children's services counterparts, with just over two thirds (68%) of children's services practitioners having between one and five years' experience in their role, compared to less than one in five (18%) of health practitioners, reflecting the national picture of a more longstanding and established health visiting workforce as compared with the relatively newer children's services workforce based in Children's Centres.

Table 1 Number of years in job role, by professional group

	Health practitioners		Children's Services practitioners		Other		ALL	
	N = 104		N = 109		N = 13		N= 226	
	N	%	N	%	N	%	N	%
<1 year	14	13	13	12	1	8	28	12
1- 5 years	19	18	74	68	7	60	100	44
6-10 years	24	23	16	15	4	33	44	19
11 years +	47	45	6	5	1	0	54	24

Base = n226, n1 missing; percentages may not add to 100 due to rounding

Only 10 participants were not working directly with parents of 0-3 year olds, the majority having managerial roles organising service delivery. 96% of 226 participants were working directly with parents of children aged 0 – 3 years.

Finally, around two thirds of practitioners (65%) were working in areas that they described as ‘mixed’ in terms of deprivation, with 13% of practitioners working predominantly in *mostly affluent* areas and 22% in *mostly deprived* areas.

3.2 Parents reached by practitioners trained in Phase Two

Population data provided by Hertfordshire for 2012 indicate that there are just over 61,000 children aged 0-3 years⁴ county-wide, and Childhood Support Services estimate that Children's Centres alone reach around 70% of parents of these children⁵. Even the most conservative estimate (i.e assuming one child per parent) would suggest that Children's Centres across the county will annually be reaching almost 43,000 parents.

Practitioners themselves supplied the following estimates:

Table 2 Number of parents worked with weekly, by professional group								
	Health practitioners		Children's services practitioners		Other		ALL	
	<i>N = 104</i>		<i>N = 110</i>		<i>N = 13</i>		<i>N = 227</i>	
	N	%	N	%	N	%	N	%
<5	11	11	10	9	3	23	24	11
5 -10	11	11	27	25	4	31	42	19
11-20	15	14	20	18	2	15	37	16
21-40	45	43	28	26	1	8	74	33
41-100	13	13	18	16	1	8	32	14
100+	1	1	0	0	1	8	2	1
Varies	8	8	7	6	1	8	16	7

Base = n227; percentages may not add to 100 due to rounding

Of course, the number of parents ‘worked with’ is not the same as the number of parents ‘exposed to MBB’; however, this gives some approximate indications of the potential ‘reach’ of My Baby's Brain if all trained practitioners were to draw on this work routinely in their daily contacts with parents.

In addition, most practitioners reported that they worked with at least one parent with ‘above average or additional needs’ each week, and over a third (37%) worked with

⁴ <http://www.hertsdirect.org/your-council/hcc/env/factsfigs/population/popestimates/midyear/myedata/> accessed 16.01. 14

⁵ Personal communication; see also Hertfordshire County Council Interim Self-Assessment 2012
http://www.hertsdirect.org/your-council/civic_calendar/cscorpparenting/17445637/ accessed 06 02 14

between five and ten parents like this. 10% reported working with ten to twenty such parents weekly.

Of those working with 0 – 3 year olds, 45% stated that they worked mainly '*one to one*' with families (substantially health visitors), 27% worked predominantly with '*groups*' and 28% in both modalities.

3.3 The costs of My Baby's Brain

My Baby's Brain was designed as a low-cost, low-intensity multi-agency approach. Using data supplied by Childhood Support Services, we were able to quantify, in broad and relatively simple terms, the costs of designing and delivering My Baby's Brain.

The costs to Hertfordshire public services of mounting the initiative can be thought of as comprised of seven elements:

1. costs incurred by the County Council associated with development of the content of the initiative (including fees paid to the developer)
2. costs of trainers employed by the developer to deliver the sessions
3. costs of Hertfordshire County Council staff time for development and management
4. costs of printing materials to be used in training and in subsequent implementation by trained practitioners
5. costs of providing training venues and refreshments
6. costs of the time of staff trained, calculated using the daily unit cost of each type of practitioner (averaged across a range of costs for employing agencies including the NHS) and grossed up for the total number of trainees in each phase [See Appendix]
7. costs of evaluation (mainly, fees paid to evaluation contractors in each phase)

The overall cost of the initiative, across all costs of Phase 1 and Phase 2, including the staff time costs of all those trained was approximately **£189,000**.

Phase 1 costs (alone) were **£50,611**, including an estimated £9,640 for practitioner staff time (76 practitioners)

Phase 2 costs (alone) were **£138, 537**, including an estimated £53,692 for practitioner staff time (395 practitioners)

Table 3 My Baby's Brain costs, Phases One and Two

	Phase 1	Phase 2	Both Phases
	2011/2012	2012/2013	2011/2013
Development costs	Ph1 12 mo	12 mo	
Central Management costs, Hertfordshire County Council			
1 x senior staff 1/6th time	£16,757	£18,632	£35,389
1x senior staff 1/5th time			
Other staff ad hoc			
Delivery costs, Provider			
Training, website, practice sharing and assistance with evaluation	£11,010	£19,085	£30,095
Evaluation costs Provider			
Design, data collection, analysis	£9,718	£38,680	£48,398
Training Overheads (Herts CC)			
Venues, catering, website	£1,500	£1,500	£3,000
<i>(note; venue costs are minimal as in-house facilities used)</i>			
Training materials			
Printing MBB booklets	£1,986	£3,448	£5,434
Posters & banners		£3,000.00	£3,000
Practice development sessions (Herts CC)			
Venues, catering, materials		£500	£500
<i>(note; venue costs are minimal as in-house facilities used)</i>			
Development costs sub totals	£40,971	£84,845	£125,816
Practitioner costs (for attending training)			
<i>Phase 1 - 76 staff - actual costs</i>	£9,640.00	£53,692	£63,332.00
<i>Phase 2 - 395 staff. Costs calculated as an average based on actual costs for 227 evaluation participants (Av. cost eval sample = £136/trainee)</i>			
TOTAL INCLUDING PRACTITIONER TRAINING TIME	£50,611	£138,537	£189,148.00
<i>all staff costs include salary and employer on-costs</i>			

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A broad but maximal estimate, including all the costs of development, testing and implementation across both phases, and including the costs of practitioner time and set against the number of practitioners trained in the fully developed model in Phase Two therefore gives an approximate cost of **£479 per practitioner trained**. This represents the full cost of training a group of just under 400 people, incorporating the full costs to develop and refine the model from its inception. Other, lower, *per capita* costs could be calculated excluding Phase 1 costs, for example, or excluding evaluation costs.

Of course, these serve only as a very approximate guide to the costs of scaling up My Baby's Brain over coming years. Figures would vary according to the number of practitioners trained, and will in addition depend on what further development costs are incurred (for example, the costs of developing new expert trainers, or of implementing recommended changes to the delivery model). These costs do, however, seem modest beside the promising results on the effectiveness of My Baby's Brain in respect of practitioners trained (see Part Two), and the potential benefits to parents and children (as yet un-quantified).

4. The need for My Baby's Brain: Pre-training knowledge and awareness

Overall, the data from both qualitative interviews and the surveys confirmed that My Baby's Brain was filling an important gap in the professional knowledge and training of staff from both children's services and health, and suggested that a wide range of staff in the county working in early years and parenting support would indeed benefit from training in this area. It is clear that professional training currently was not covering these aspects of child development in great detail, perhaps surprisingly given the vital importance of responsive parenting in the early years to healthy infant development. Staff therefore mostly welcomed the idea of the training with enthusiasm, and recognised the need for it.

4.1 Prior awareness of the importance of attachment

The pre-training survey certainly suggested that there was already a strong **awareness** amongst both of the key professional groups of the general importance of the subjects covered by My Baby's Brain. Most of the evaluation sample knew, prior to the training, that *'attachment is a critical survival mechanism for small babies'* (mean average agreement with this statement on a scale of one to ten, where ten was the strongest level of agreement, was 8.67). Although those with substantial professional experience (six years or more in role) reported slightly higher levels of agreement (mean average score 8.94 vs 8.45 for those with five or fewer years in role), the difference between the groups was not statistically significant.

However, although two thirds, 62%, of practitioners also reported **already using** a *'knowledge of attachment theory and scientific knowledge of how babies' brains develop'* 'a little', and thirteen percent used it 'a lot', a quarter (25%) were not using it at all⁶.

⁶ Note that in the counterfactual group, 45% claimed not to use this knowledge in their work; in other words, the pre-test evaluation group were reporting much more use, pre-training, than the comparison group. Whatever the reason for this difference, it results in a particularly rigorous test of the impact of the training for

Table 4 Pre-training use of knowledge of attachment theory and baby brain science		
	ALL N= 222	
	N	%
Use a lot	29	13
Use a little	137	62
Do not use at all	56	25

Base = n222, n5 missing; percentages may not add to 100 due to rounding

4.2 Prior training in infant brain development

Many also indicated in the pre-training questionnaire that they had little or no prior **training** in *‘the theory and science of baby brain development’* (one third overall; 31%) and six in ten had only ‘a little’: table 5. As the table shows, children’s services staff were twice as likely as health staff to report having had no prior training, a significant difference (40% compared to 21%) .

Table 5 Whether previous training in theory and science of baby brain development, by professional group								
	Health practitioners		Children’s services practitioners		Other		ALL	
	N = 103		N = 110		N = 13		N= 226	
	N	%	N	%	N	%	N	%
a lot	11	11	4	4	2	-	17	8
a little	70	68	62	56	6	-	138	61
no	22	21*	44	40	5	-	71	31

Base = n226, n1 missing; percentages may not add to 100 due to rounding; * = Chi-Square test, p<.05

the training survey group, giving us greater confidence that differences pre and post-test, where they occur, are ‘real’.

4.3 Prior knowledge of infant brain development

A similar question assessing **prior knowledge** of '*the theory and science of baby brain development*' obtained similar results: overall, 31% of the group (just under one third) claimed 'hardly any knowledge', 61% claimed only 'a little knowledge', and only 8% claimed 'a lot of knowledge'. Notably, again children's services staff were three times as likely as health care staff to report having no pre-existing knowledge, (41% compared to 13%, a highly significant difference⁷), suggesting that most health staff had acquired a basic knowledge of the area through experiential or other informal learning, even where formal training was lacking.

Table 6 Knowledge of theory and science of baby brain development, by professional group								
	Health practitioners		Children's services practitioners		Other		ALL	
	N = 104		N = 110		N = 12		N= 226	
	N	%	N	%	N	%	N	%
a lot	9	9	2	2	1	8	12	5
a little	82	79	63	57	8	67	153	67
hardly anything	13	13	45	41	3	25	62	27

Base = n226, n1 missing; percentages may not add to 100 due to rounding

By contrast with reported knowledge of the importance of attachment in infant development, in the pre-evaluation survey, when asked to agree or disagree on a scale of one to ten with the statement '*I have a good knowledge of how babies' brains develop*', the average rating on this scale for the group as a whole was only 4.5 out of a maximum possible score of 10. A similar scaled question measuring agreement with the statement '*I understand the ways in which parents can affect their baby's brain development*' produced a mean average score of 5.5 out of a possible maximum score of ten. Although health visitors were somewhat more likely to report prior knowledge of brain development (mean average score 5.14 compared to 3.92 for children's services practitioners), the differences were not substantial enough to be significant. Similarly, level of experience also was not associated with significant differences in response to this statement. These figures suggest clear knowledge gaps amongst practitioners, irrespective of professional group or level of experience.

Not surprisingly, then, prior to training, practitioners also generally reported they had relatively little understanding of '*the ways in which parents can affect their baby's brain development*' (mean score 5.5 out of 10) and lack of confidence in '*talking to parents about*

⁷ Difference of means test; p=.000

how babies' brains develop' (mean score 4.1 out of 10). Again, whilst health visitors reported slightly more understanding (mean average score 6.05 compared to 5.06 for children's services practitioners), there were no statistically significant differences associated with professional grouping, or level of experience.

It is interesting that although most staff reported they were familiar with the principles of attachment, most used this knowledge only a little in their practice and over a quarter did not use it at all. Two fifths of children's services staff also reported having had no prior training in aspects of infant brain development, and even amongst health staff, one fifth were receiving this training for the first time. Thus, although children's services staff reported knowing less about the subject matter in the first place, and tended to be most excited about the training in advance, it was clear than even experienced health staff, despite attending not entirely of their own volition, in fact found the training a helpful refreshment of their knowledge about these subjects.

There was also a strong appetite for the training. Most practitioners (78%) reported that they actively chose to attend the training rather than being directed to attend by manager. Comments made in the pre-evaluation survey indicate the eager and positive expectations of many of those attending the training:

"I am excited about the training as it is so important to me to have a better understanding"

Even though many practitioners indicated that they had learned about attachment theory previously, relatively few had been substantially exposed to the emerging evidence on neuroscience and infant brain development. Even health staff, many of whom had been directed to attend and who were more inclined to feel they 'already knew' the content, were stimulated by the specific approach of My Baby's Brain and the 'five a day' concept:

"We were told that we needed to do it as part of our refresher, so it was really (decided by) the Trust. (But) I was quite interested because I don't think I've ever had any formal training before. I've probably covered it all (in my degree) but it's not been specifically focused (like this)"

Health Visitor

"Well, obviously we've dealt with attachment – I've dealt with that in my training as a health visitor and in my practice – but this, the five building blocks, a bit like your five daily veg – is a different kind of approach, really: more up to date, more modern. It was.... a new way of looking at things."

Health Visitor

Children's services staff were however especially enthusiastic about the need for an initiative like My Baby's Brain:

"I was quite excited about it and it's something we hadn't done before, so it was very different."

Children's Centre outreach worker

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"I had the knowledge, and I knew the building blocks, but I'd never broken it down, and I think breaking it down makes it so much easier.I had had no training like that before. I thought it was brilliant and I thought it should have been taught in school level, so everybody knows about it!"

Assistant social worker

PART TWO

OUTCOMES OF TRAINING

In this part of the report, we review the data on changes in practitioners' knowledge, attitudes and practice as a result of attending the training.

5. Changes in practitioners' knowledge, attitudes and practice

5.1 Introduction

Participation in the My Baby's Brain training was clearly and strongly associated with changes in knowledge, confidence and practice for practitioners. Overall, the quantitative surveys showed that practitioners reported statistically significant positive changes in all dimensions of knowledge and attitudes, and encouraging, although less substantial, changes in practice. The changes were large and significant for all types of practitioners, and notably, all the changes reported were sustained at follow up, which in some cases was at a time point three to four months after the training event. In a few specific areas there were more substantial positive changes in the children's services practitioner group than for health practitioners.

In this part of the report we present and discuss the evidence gathered in the research, blending quantitative data from the survey of those trained with qualitative data gathered through in-depth interviews with practitioners.

The quantitative element of the evaluation measured change for individual practitioners attending a training day, with changes in knowledge, attitudes and practice assessed at three time points: a pre-evaluation survey completed on the day of the training; a post-evaluation survey completed immediately before participants left to go home at the end of the training day; and a follow-up completed on-line and administered between 8 and 16 weeks after the participant had undertaken the training⁸.

The qualitative elements of the study, including 15 in-depth interviews with front-line practitioners in health and children's services roles and a further eight interviews with staff in strategic and operational management roles also explored perceptions of impact after the training and over time, as practitioners digested the information provided at the training days, and began to implement the learning in their usual practice settings.

⁸ Note: The follow-up questions were administered to varying numbers of people at between eight and sixteen weeks post training, due to an administration error in a KCA on-line process. We have used data generated from questions answered by between 125 (55% of the original pre/post-test sample, an acceptable response rate for a follow-up survey, by conventional standards) and 65 people (29%, a much less robust proportion). Though we have no reason to doubt the representativeness of the group completing the follow-up (it is believed to have been a systematic error), the results based on the smaller numbers clearly must be treated with caution.

Satisfaction with the training, which measures acceptability to trainees, and whether the training met trainees' own learning objectives, was also assessed at the post-test stage, and is discussed in detail in Part Three (Implementation), alongside a more detailed analysis of responses to the training.

5.2 Changes in knowledge

5.2.1 Acquiring new knowledge in general

Despite the comments made by some in qualitative depth interviews that the training content was more of a 'refresher' than entirely novel material, almost everyone who attended the My Baby's Brain training acquired new knowledge at the training events, according to the survey: 98% of participants stated that they had learned either 'a lot' (49%) or 'a little' (49%) with only 3 participants feeling that they had not gained any new knowledge. Thus, irrespective of discipline or level of experience, My Baby's Brain was bringing new insights to those attending the training.

Differences were however apparent by practitioner group, with the majority (60%) of Children's Centre practitioners claiming to have learnt 'a lot'; whereas the majority of Health visitors (60%) claimed to have learnt 'a little'. These differences between the health and children's services groups were statistically significant⁹, and were not attributable to differences in levels of experience between the two groups¹⁰.

In qualitative interviews, these comments were typical of the group who felt they learned 'a lot':

Q: Can you give me an example of something the training refreshed for you?

"Well, really about how environment and interaction can actually influence the development of the neural pathways in baby and in children. My play-work studies were geared at older children as well, so ...the new part for me was considering a new born, rather than older children"

Children's social care manager

"I did learn quite a bit. I wasn't so (well) informed about ways in which we can help babies thrive.... it was.... a refresher of how simple things (are important)... So that was helpful"

Children's Centre outreach worker

Even for those experienced practitioners who felt much of the content was not new, the refreshment of existing knowledge was appreciated:

⁹ Health professionals mean: 1.63; social care professionals' mean:1.41 (reverse scored), Base 224; one-way ANOVA test; p<.05

¹⁰ When tested, the differences between those who had six or more years of experience and those with less experience in the role were not significant.

Q: How much of what was covered in the training was new to you?

"I think some of it was new. The information that backed it up, and what we were able to observe in the video clips was refreshing, though maybe not as new. I suppose having done a degree, the modules on attachment, the on-going training as part of being a social worker, you do touch on areas that overlap. But it was nice to have all that (presented) in one place, and refreshing myself, picking up maybe on different signals of a baby's body language that I might not necessarily have known. I kept thinking: Oh, that's interesting: I'll put that into my practice now"

Social worker, child protection locality team

Q: Did you learn anything new in the training at all?

"Yes and No. I mean, I think the basic principles were not a revelation to me. There was nothing new there. But certainly the 'five a day' and the way it was presented was new, and is useful to pass on to parents"

Health visitor

5.2.2 Changes in understanding the significance of attachment for infant survival

As noted in Part 1, an overarching message of My Baby's Brain is concerned with the importance of strong and healthy attachment between parents and young babies. We also noted earlier that agreement at the pre-training stage with the statement '*attachment is a critical survival mechanism for small babies*' was already relatively high (mean average agreement 8.67 out of a maximum score of ten). However, at the post-test stage, significant improvement even in this already high score was seen and the mean average agreement rose to 9.52 (paired differences test; $p=0.00$). At follow up, 125 practitioners responding to this statement gave an almost identical mean average of 9.53, showing that the post-training gains were maintained over the short to medium term.

"The presenter said that often when we are dealing with safeguarding issues, often, eye contact will tell you all you need to know when you are going into a family. And that hugely influenced me, on the day. It is so important. And I was thinking of cases where I'd been working with families where the eye contact [between parents and babies] hadn't been there: so I came away with that one thing: it was quite a powerful statement for me"

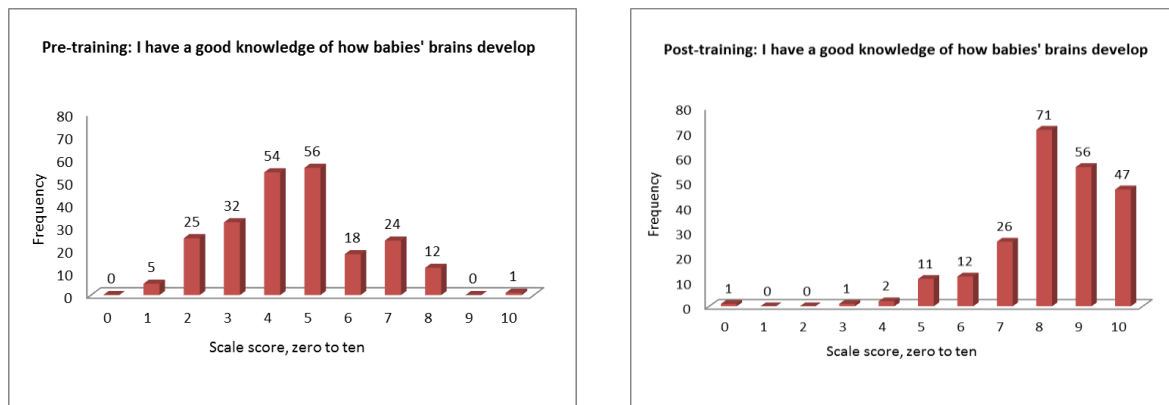
Health Visitor

5.2.3 Changes in knowledge of baby brain development

We also measured gains in knowledge, asking participants to respond to the statement '*I have a good knowledge of how babies' brains develop*'. There was a strong positive shift in responses between the pre-evaluation and the post-evaluation survey. Mean scores at pre-test were 4.53 and at post-test 8.20, a highly significant difference as the two Figures below

illustrate. Interestingly although health professionals reported higher starting levels of knowledge at the pre-test, both health and children's services practitioners reported significant gains over the course of the training event.

Figure 7 and 8 Pre and post-training knowledge of how babies' brains develop



Base: n227; paired differences test; SD 1.93; p=0.000

And at follow up, the mean average score of 125 participating practitioners remained significantly higher than at their pre-test (mean = 8.07), showing the gains did persist over time.

"The discussion of the development of the neuro-pathways: I found it very interesting. It was something I kind of knew, but ...it went into a bit more depth, and I loved the analogy that was used of the many different train stations and the neuro pathways creating this...train track between them so to speak, and connecting up all the billions that are developed throughout the early stage of life. That really spiked my interest".
Children's Centre ADHD Nurse

"Well, I suppose although I thought all the Five to Thrives were good for babies, I didn't actually realise how much it affects the brain. I can honestly say I didn't realise – all that stuff about the brain and neurons and things firing off. I didn't realise the significance, so that's what I've really learned".
Health Visitor

5.2.4 Changes in understanding how parents can influence development

Further gains in knowledge were found in relation to improved understanding of *'the ways in which parents can affect their baby's development'*. A pre-test mean average score rose from 5.55 (out of ten) to 8.76 at the post-training test (a highly significant result; paired differences test; $p=0.00$), again fully sustained at follow-up (mean for 125 respondents 8.80, $p=0.00$).

5.3 Changes in attitudes: confidence and expectations

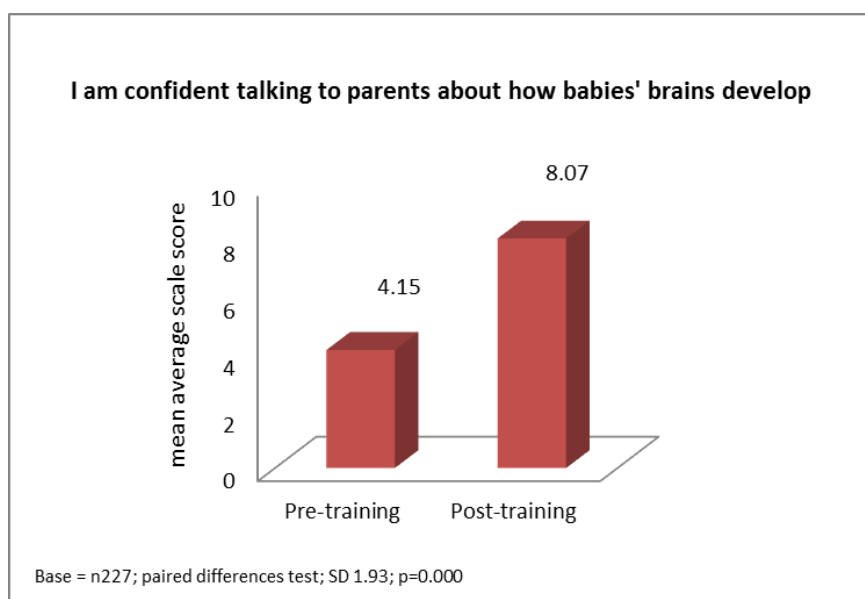
5.3.1 Improvements in confidence about theory and science

Gains in knowledge and understanding were an important positive result of the My Baby's Brain training, but in order for gains in knowledge to translate to changes in practice, practitioners must also feel more confident about their mastery of the material and that they can use this knowledge in routine practice.

Thus in the post-evaluation survey, we asked practitioners to agree or disagree with the following statement, on a scale of one to ten: *'As a result of today's training, I am more confident in my knowledge of the theory and science of baby brain development'*. One in five (19%) placed themselves right at the top of the scale, and overall, 86% participants strongly agreed with the statement (scoring 7, 8, 9 or 10 on the scale). At the follow-up stage, an identical proportion (86%) of 125 practitioners who completed this question gave the same response.

There was also a strong positive improvement in practitioner confidence in communicating with parents about the subject of infant brain development. Asked how strongly they agreed with a statement *'I am confident talking to parents about baby development'*, whereas the pre-test mean average score for the evaluation group as a whole was 4.15 (out of possible maximum score of 10), after the training the mean score was 8.07, another significant change.

Figure 9 Pre and post-training confidence in talking to parents about infant brain development



These gains were sustained into the follow-up period (mean average for 125 respondents 7.78, $p=0.00$).

In qualitative interviews, practitioners gave some indication of how this process of becoming more confident might have occurred. These are encouraging findings, suggesting that one of the key mechanisms of change for My Baby's Brain may be that it equips practitioners with better understanding of how to communicate with and convey information to parents about what might otherwise be a difficult and complex area of child development science.

"It (My Baby's Brain) definitely contributes.... It is giving you the thoughts and the meaning behind things, so instead of just saying (to parents) 'you should do this, and you should do that', (you can) explain (why)"

Children's Centre worker

"I think the training has allowed me to compartmentalise the important aspects, and...rather than being vague about them I can be more specific; more specific about the importance of each of those aspects and especially the different points of the Five to Thrive. So I think it's allowed me to have a clearer picture in my own mind, to then relay the information onto others, more importantly."

Children's Centre ADHD Nurse

Another equally important immediate effect that some reported was that the training and its emphasis validated practitioners' own understandings about good practice, by reinforcing practitioners' own, sometimes implicit or tacit, beliefs about what was good for babies, thereby helping them to feel more confident in their dealings with parents. This applied even to those practitioners who felt the new learning from the day had been minimal:

“I would like to think that I promote (the five messages) anyway, but I think I’m more conscious of trying to promote them now, since I’ve been on the training. I’ve been health visiting for many years, I have always felt these things have been important, but they aren’t the things we tend to get asked to promote. So I suppose, because I have been on a study day where I’ve been told they are important, it’s quite nice to have my values (endorsed). It has validated what I’d been thinking was important”.

Health Visitor

“I think the best part of it for me was the reinforcement of what I was already doing and an enhancement of what I do as health visitor”

Health Visitor

“(For me and my colleagues on the training) it refreshed things in our mind, and in a way it made us feel kind of good about what we are doing, because we are actually putting those things into practice anyway”

Children's Centre Worker

Some practitioners were more specific. They noted that the focus of My Baby's Brain, and the fact that it was underpinned by robust scientific evidence, was an important argument that could be marshalled when working with parents who were influenced by schools of thought that overemphasise routine and de-emphasise responsiveness:

“It was reinforcing what I thought was important: the talking to your baby, touching your baby, cuddling, responding. Also there have been books out a little while back, the Gina Ford book, which go against all of this in my opinion. You do start to doubt, perhaps, what you’re teaching to new parents, particularly when they tell you they’ve bought this book and they’re going to follow it. But (now) I would be saying to them “I don’t actually think you can give your new baby enough time and attention... and you should always respond when it is crying!” : (The My Baby's Brain training) helped me feel more confident... Now I can actually say: Well, we’ve got all this evidence that goes against some of the books that they’re reading.”

Health Visitor

5.4 Changes in practice: intentions and realities

5.4.1 Intentions and expectations about use of the five messages in practice

In qualitative interviews, many practitioners noted that the training had been inspiring, leaving them thoroughly convinced of the importance of the five messages and enthusiastic about passing on this information to parents. Many reported that they were eager to put into practice the new understanding:

"I think I just wanted to go and share this with the parents. I thought it was really interesting, and the benefits were fantastic."

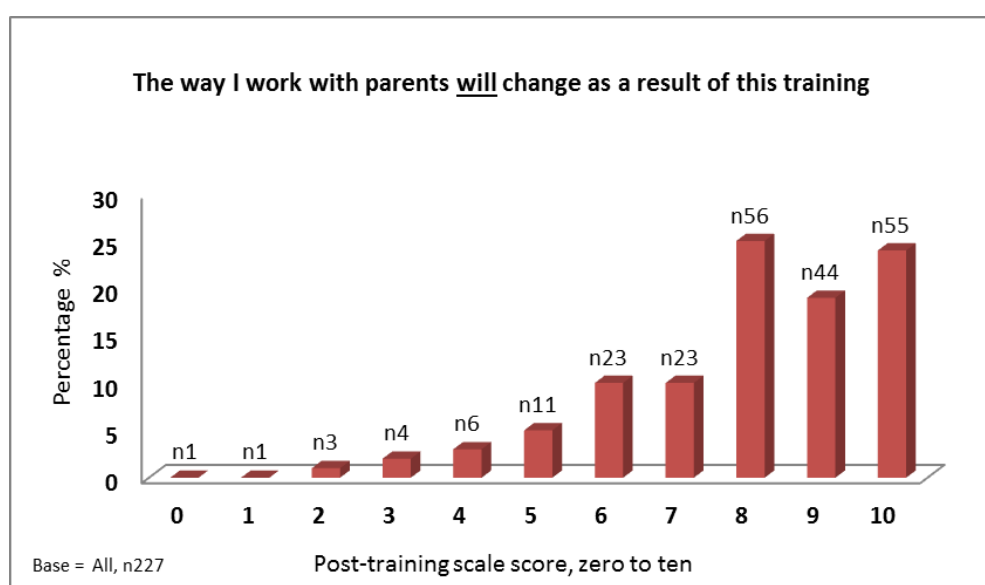
Health Visitor

"It hasn't made me think differently. It just makes me want to share it more"

Health Visitor

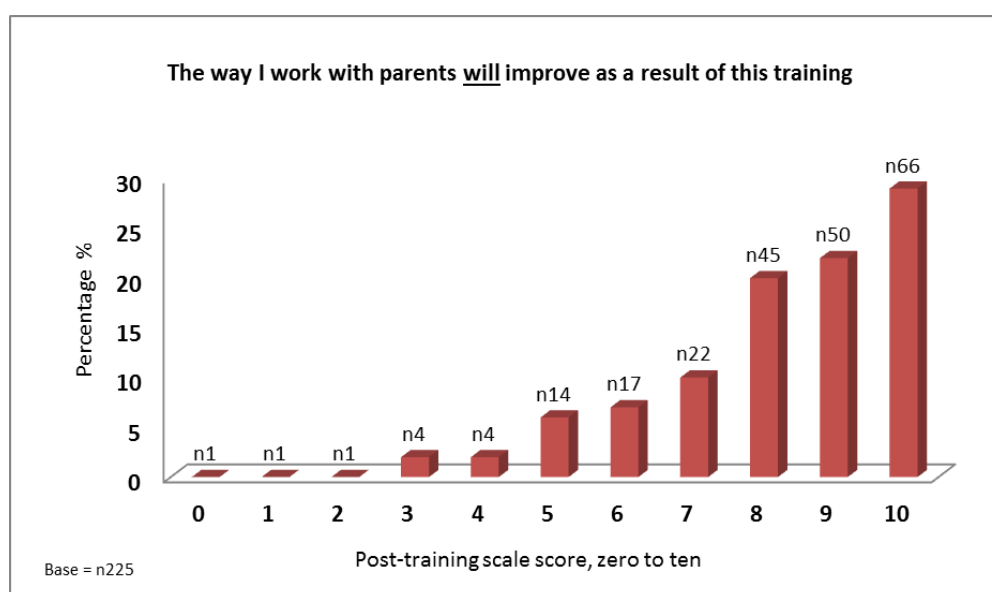
At the post-training stage, most practitioners (nine out of ten) were strongly motivated to use the five messages in their work and had high expectations of changing their practice style or quality. **95%** strongly agreed (defined as scored 8, 9, or 10 on the scale) with the statement *'I will use the Five to Thrive messages that have been provided today, in my work with parents'*. **91%** said they *'would talk to colleagues about My Baby's Brain training and the Five to Thrive messages'*. Over three quarters (**79%**) reported they were expecting that *'the way I work with parents will change as a result of this training'*, with health and children's services practitioners equally likely to say their practice would change (mean average score health group 7.80; children's services group 7.91).

Figure 10 Post training expectations of change in personal practice



Asked if they expected that the training would improve the *quality* of their practice, overall, almost three quarters (**71%**) of the evaluation group reported that they expected *'the way that I work with parents will improve as a result of this training'*, strongly agreeing with the statement (scoring 8, 9, or 10 on the scale).

Fig 11 Post training expectations of improvements in quality of personal practice

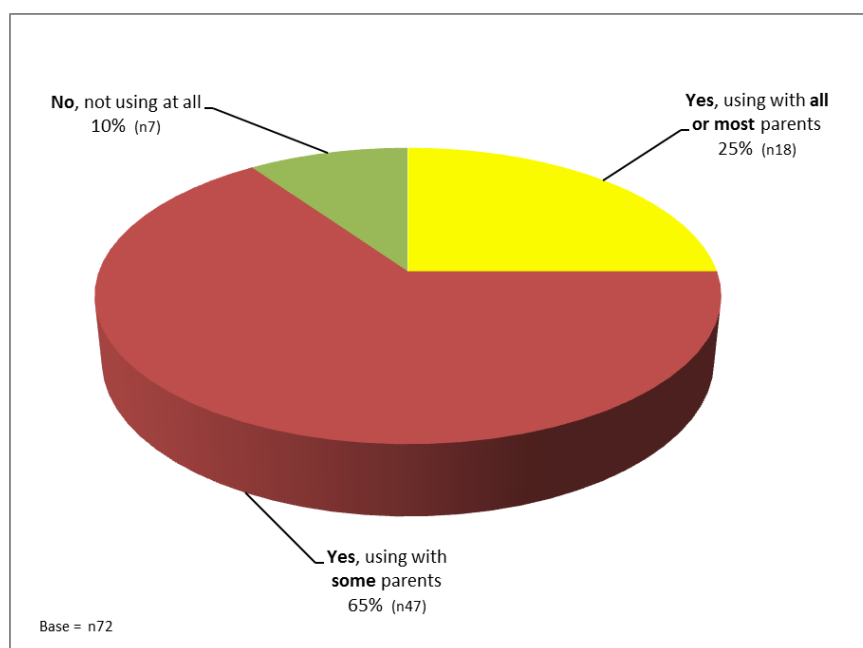


5.4.2 Actual use of the messages, changes and improvements in practice : data from follow up

At the follow-up stage of the survey, which took place two to four months after training, and in the qualitative interviews with practitioners that took place around the same period, practitioners were asked to indicate the extent to which they had in fact been able to start using the My Baby's Brain messages in their work. 72 practitioners responded to this set of questions, equivalent to 32% of the original pre and post-test evaluation sample (i.e., a small proportion of the overall group, which requires that we treat these data with caution).

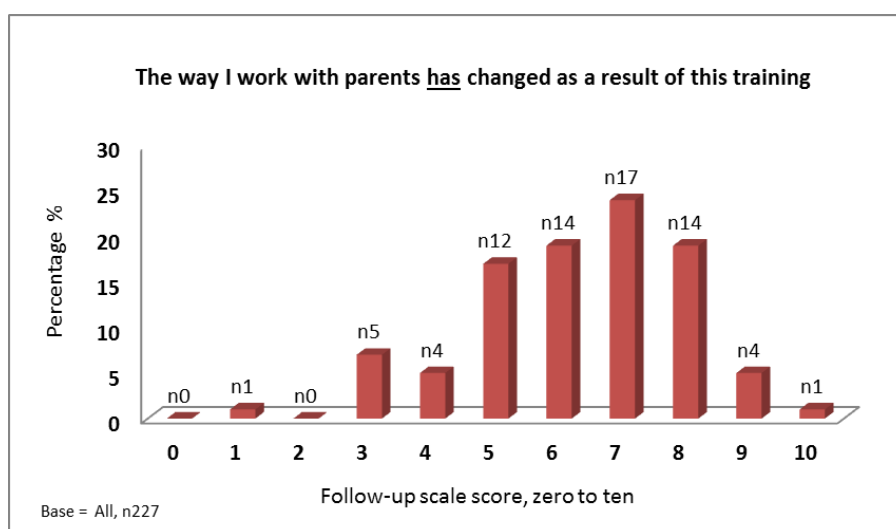
90% of this group said they had been able to **use** the messages, which compares favourably with the 'predicted' usage at the post-test stage (95%) **25%** had used '*with all*' the parents they worked with, and **65%** with '*some*'. Of the one in ten (10%) who had not used the messages at all, responses given were mostly to do with lack of opportunity, including having moved jobs, and no longer doing direct work with families, rather than lack of willingness or confidence. Note that prior to the training, 25% of practitioners were reporting not using these ideas at all in their work, suggesting that the training did substantially reduced the overall proportions of those not referring in any way to these important concepts in their daily work with parents: a notable achievement.

Figure 12 Use of the Five to Thrive messages at follow-up



Of the 72 practitioners answering the question, **50%** also said their way of working **had in fact changed** and a quarter 26% (n19) *strongly* agreed (scoring 8 or more on the scale) that the way they worked had changed; a smaller proportion than post-test survey expectations had indicated (79% strongly agreed their work would change at that time point).

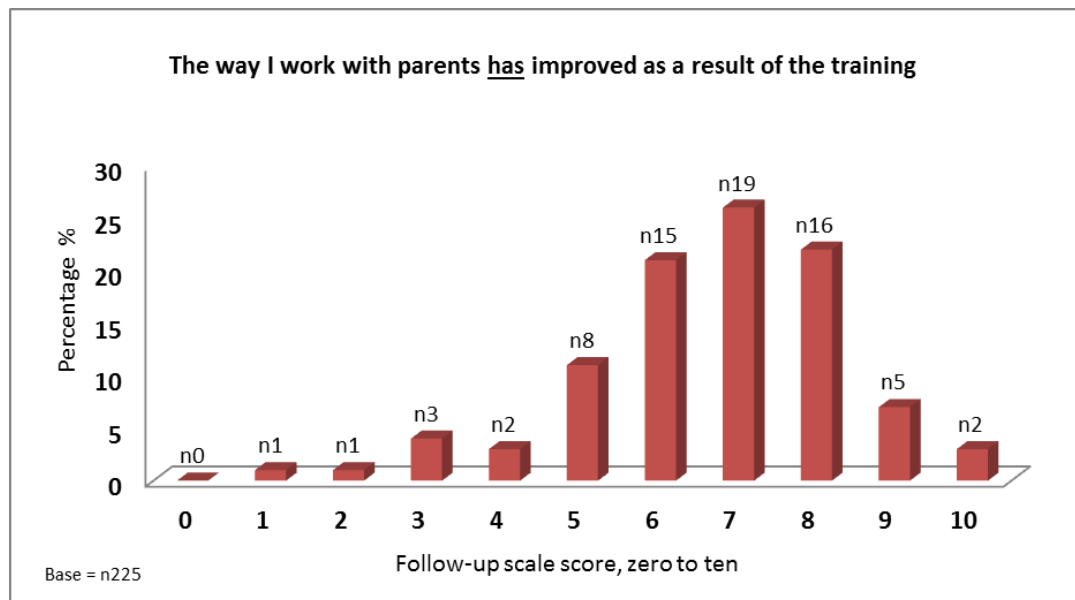
Figure 13 Follow-up reports of practice change after training



Somewhat over half of those responding reported that their work with parents had **improved** (58%, n42 scoring 7,8,9,10); somewhat less than post-test expectations, and only

a third (32%, n23) strongly agreed (scoring 8,9,10) that their work had improved (compared, again, to 72% strongly expecting it to improve at post-test).

Figure 14 Follow-up reports of practice improvement after training



How to calibrate these figures is of course an entirely subjective matter. By some estimations, half of all trained practitioners reporting changes to practice may seem small; but by others, this may seem a substantial shift, especially given the light touch nature of the training (a single day).

Certainly, examples of practice change attributed to My Baby's Brain abounded in the qualitative interviews with practitioners; which we discuss in more detail in Part Three that follows.

PART THREE

IMPLEMENTATION

In this part of the report we explore the multiple dimensions of implementation that are relevant for understanding how My Baby's Brain worked in achieving change. In the following three sections, we explore (1) use of the approach in practice, in the field; (2) the 'readiness' of people (staff), services and the wider system to implement My Baby's Brain effectively; and (3) the 'fit' of the new approach with the key factors influencing people, agencies and system partners.

6. How practitioners used My Baby's Brain in practice

6.1 Introduction

A notable feature of My Baby's Brain was that although the initiative began life as a **universal** approach, suitable for use with all parents in the local population and not just those who might be struggling or in need of specific help, over time it emerged that the approach lent itself well to the needs of **targeted** groups of parents and children with (higher needs or more vulnerable or 'at risk'). This formed an important dimension of variation in how the approach was implemented in practice. A further dimension of variation, which cross-cut the 'setting' dimension, was use of the Five to Thrive messages in both naturalistic, 'embedded' ways, and in more planned, 'structured' ways. Because My Baby's Brain is intentionally an approach and not a formal 'programme' with fixed elements, and because of its emphasis on relationships and responsiveness (a 'way of being' as much as a way of doing'), there are some challenges (both for those using and those evaluating) in isolating specific examples of 'My Baby's Brain in action' in practice examples, as these were often subtle and nuanced. Nevertheless, we found many examples where practitioners could point to identifiable practice change that they attributed to the My Baby's Brain initiative.

Below we describe how practitioners were using My Baby's Brain in the two different settings and in the two rather different ways, drawing mainly on qualitative data collected from practitioners. We also have 'case example' information provided by a small number of parents with whom we spoke during the course of the study, and which is shown in the boxes at relevant points where it augments the analysis of practitioner data.

6.2 Who My Baby's Brain was used with: Universal and Targeted delivery

6.2.1 Using My Baby's Brain in universal settings

According to practitioners' descriptions, use of My Baby's Brain in universal settings was characterised more by a change in the emphasis practitioners would give to certain aspects of child development and parenting, based around the Five to Thrive messages, than by a specific set of practices that they would undertake. However, they noted that the frequency with which they raised certain issues or the amount of time they would spend on them had increased after having attended the My Baby's Brain training.

For example, some practitioners working in universal settings noted that they had begun to use the Five to Thrive messages to introduce more detail and to be more emphatic about how parents could encourage infant brain development:

“I definitely now, particularly in my first visit, talk to the parents about enjoying your children and it’s not a waste of time to talk to them and sing to them and cuddle them... So (I’m) promoting all of that – whereas I don’t think I was quite so overt about it before”

Health Visitor

“I have noticed the difference in what I’m talking about: it is about time for yourself and the baby to relax; emphasising that more. Perhaps we do take it for granted that parent or every new parent feels the same as you. But they don’t, so it’s (about) making sure you emphasise this, perhaps more than I would have done in a visit (previously)”

Health Visitor

Some particularly focused on specific aspects of the Five to Thrive messages, which they felt helpfully counteracted a tendency to overemphasise intentionality in interactions with babies and in the early years, sometimes to the detriment of more nurturing, intuitive or responsive parenting. For example, some found the ‘relax’ message particularly useful, using it to reassure anxious new parents not to be too demanding of themselves and that ‘just being with your baby’ without any specific task or activity to do was as important and worthwhile as ‘purposeful’ interaction, or as one health visitor put it:

“Some parents are hard on themselves... I find sometimes they just want to get back in control of their lives very quickly and part of that means they don’t want to spend time cuddling or relaxing. They want to get their babies off to sleep as quickly as possible and get on with their chores. ...So I think it’s so useful to use this research and information to tell them it is really important...to realise the significance of how they are responding to the baby”

Health Visitor

Some staff indicated that in this respect they had found it particularly helpful to focus on specific messages:

“For me personally, the ‘relax’, and the ‘cuddle’ and the ‘respond’ stood out for me more. Obviously I was doing it to a certain extent, but... sometimes when you’ve been doing something for a long time, things get put aside, don’t they? So it did make me... revive those types of sessions a bit more, and really focus on those things.... (for example) within a baby massage session, because I have been doing it so long, I’ll just show the strokes and (although) I can see that the babies are showing certain cues, maybe I wouldn’t have picked up on it before and spoken about those things (to parents). Whereas now I am saying “(Babies) will show...these difference cues; do you know what cues your baby has? Can you respond to them?”, and there is a bit more discussion at the beginning and also throughout the group. I have been doing it for

four years, and you do sort of get into a routine, don't you? So it did bring that back out".

Children's Centre Worker

6.2.2 Using My Baby's Brain in targeted settings

However, it was in work with parents and children in vulnerable or high need situations that the heightened sensitivities prompted by the My Baby's Brain training really made a clear and identifiable difference to the way practitioners worked. For some families My Baby's Brain was used to help parents understand the importance of responsive parenting in its most general sense:

"Some of our families I think feel embarrassed, for example if a child makes babbling noises and they make them back, they'll look silly, so I'll say, "No, that's part of it (the Five to Thrive)!"

Assistant Social Worker

Again, as with work in universal settings, a change of emphasis and focus was described, as staff began to look more closely for the signs of responsive parenting and secure attachments in vulnerable families:

"When I do parent assessments and things like that, now I'm looking for extra bits, where before I was just looking at the basics. It means you're looking for the parents repeating words – and say they were engaging with the baby - now I can actually (look for) are they responding, are they in tune with the child? I think it's (My Baby's Brain) given me more insight into the parenting side... it has made me feel I have to work with the babies more, and that I have to implement it in everything that I do"

Assistant Social Worker, Child Protection Team

One experienced social worker who was supervising regular weekly contact sessions between a birth mother with social communication difficulties and her 15 month old son who was in foster care described how now she was now demanding more and pushing harder to help the mother support her son's development:

"She's got difficulties – she really struggles. It's important for her to spend that (limited contact time) with him productively. I've spoke to the contact workers as well, and we're trying really hard with that: 'play a little bit with him', 'read a little bit with him'. Before (the My Baby's Brain training) I suppose I might have let it go on a bit, but actually, no: that's not in his best interests. I am (now) more confident in the fact that actually, we should do something different, we should push it a little bit more, and they would both get more out of it".

Senior Practitioner, Safeguarding

Staff doing work with targeted groups also found My Baby's Brain added substantially to their confidence when it came to preparing for reviews and court reports. The confidence came from being able to clarify the evidence that supported the practitioner's case for taking a particular behaviour (or perhaps more importantly, an *absence* of a particular behaviour) seriously:

"It has made me think differently about how I observe the emotional side of things, when you are writing reports and things, around the safeguarding side of things. ...The training made me think about things from a slightly different perspective. (For example) perhaps just a quick cuddle when you ([the HV] are in the home is not enough. It has got to be a lot more, and on a regular basis, so the child gets the best outcome..."

Health Visitor

"I was really able to relate the training well to a case that I'm working on, a new born baby and concerns regarding neglect and it helped me evidence a lot of things that obviously Mum wasn't providing for her child. It helped me consolidate all of that information in the different areas where the baby might be affected – you know: necessary care, eye contact, smiling, talking, general stimulation... I was just able to pinpoint those things to evidence what I was saying a lot more clearly than what I would have been able to. I've gone into a lot more detail...in my court statement, about my concerns regarding the attachment (between mother and baby) based on my observations, whereas before I might have just summarised. We've got grave concerns about the mum's ability to care, and doing thatprovides more detail (for the court) as to why"

Social Worker

Some practitioners also believed they had seen direct changes in behaviour attributable to the stronger focus on responsiveness emphasised by the My Baby's Brain approach:

"I've got a young mum and I've spoken to her about when she walks down the road with the pram, instead of having her headphones she needs to talk to the baby and that kind of thing... and she's started doing that now"

Assistant Social Worker

6.3 How My Baby's Brain was used: Embedded and structured delivery

Use of My Baby's Brain in practice was described in two specific ways. One way reflected a more naturalistic, opportunistic style embedded in daily practice and particularly suited to briefer 'in passing' contacts with parents, to 'low-key' introduction of the five messages into groups and drop-ins, and to health visitors whose home and clinic contacts with parents were already tightly structured with a range of formal requirements that meant they were time-pressed.

6.3.1 Using My Baby's Brain in an 'embedded way'

Embedded use of My Baby's Brain could start as simply as having materials about the Five to Thrive messages prominently displayed in places where parents could not miss them, for example when entering Children's Centres:

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"We have the posters up all over the centre; and there's a really big six foot tall poster as well, that's as soon as you walk in the door! . (And) Sometimes we do a display just on one (message).

Children's Centre Family Support Worker

"We've got a display board and I bring it into the group work with the new mums. In baby massage it's easy to bring it in"

Children's Centre Outreach Worker

Some Children's Centres had created other kinds of materials designed to provoke comment and questions, that could then, quite naturalistically be used by staff 'to bring the conversation round' to discussion about the messages:

"I have asked two grandparents to knit these squares to make coloured knitted bricks around foam blocks, and then sewed 'respond' or 'talk' on them. And then when people look at it they'll say 'What is that? Why have you got to talk?' And then you can refer to it – It's a way you can incorporate it into a Stay and Play, without actually signing someone up for a baby talk. And I also thought it would be useful for the midwife when people come to have their antenatal check up"

Children's Centre Outreach Worker

"We have the Baby Lounge on a Tuesday which is not quite as sociable (as Baby Massage) because you tend to walk from one person to another; but I thought with the blocks, you could bring them together. It could be something that we could talk about without it looking like it's a lecture or a talk or anything, it would just be something we could talk about – you know, when they're sitting and playing with their baby, and you can sort of bring the conversation round to whatever it is you want to talk about."

Children's Centre Outreach Worker

Once again, one of the key differences in practice post training was around the degree of emphasis and focus (and time) that practitioners would try to give to the five messages in the course of their daily interactions with parents. Embedded use was therefore often described by many practitioners as a process of weaving the new information about why the five messages were important in with more general discussion about what parents were doing at home, placing a little more emphasis here, and providing bit more in-depth information there:

Q: Have you done anything differently since the My Baby's Brain training?

"Yes, yes, definitely. When I do home visits I actually talk about the baby's brain and I would never have done that before: I never talked about development from the brain side of it. I would talk to them about playing and talking and singing nursery rhymes and learning through play and stuff, but I never would have delved into it and going down that route with them (discussing brain development). I'm confident enough to do that now"

Children's Centre Outreach Worker

As one Children's Centres worker summed up the embedded approach:

"I think it's really not lecturing, not telling, but perhaps suggesting and....taking little steps to support parents to empower them"

Children's Centre Manager

6.3.2 Using My Baby's Brain in structured ways

The other way of using My Baby's Brain involved more planned, structured delivery of the five messages, using a variety of formats and props. This structured use was distinguished from the purely embedded delivery style by a focus on in more depth about the messages, the evidence behind them, and specific tips on how parents might use them when looking after their baby. In Children's Centres in particular, staff found the Five a Day model a helpful, simple, memorable framework around which to build discussions and even structured sessions with parents and children, using the different principles creatively and flexibly. As well as the 'building blocks' similar to those illustrated in the booklets (see Figure 1) and described above, some had created boxes or bags (one for each of the Five to Thrive messages) into which stimulus materials were placed for use in guided discussion or in structured play.

"Some of the things we picked up (in the My Baby's Brain training) were really good. (For example) they said making different sorts of bags with different things in...like stories... with the five (messages) on; so they have a 'cuddle' bag and a 'relax' bag...so we have those things ...as props to help show the parents. Since going on the training I have really focused back on my 'Bumps and Babies' session and implementing ways of doing these things.... You know, even like just having a little mini-rhyme at the end, eye contact, looking at babies' cues, things like that. We (would always have had) a focus within every session, and (now) we're focusing it more around those five areas..."

Children's Centre Worker

"It works really well. We have boxes of the different colours [corresponding to the Five to Thrive messages] and then when we are working on something that is to do with that area, we take that box out and we use the bits that are in it."

Children's Centre Family Support Worker

Some practitioners also described having developed special add-on components to existing services; so for example, some baby massage sessions and pre/post natal groups ('Bumps and Babies') in Children's Centres were sometimes ended with a discussion around one of the five principles. In some centres, workers led structured sessions specifically focused on one or more of the five messages, with the aim of covering all five over a defined period.

Case examples (boxes 7 to 9) provided by parents illustrate how parents heard and understood the information delivered in this way:

Box 7 Case Example, Structured Delivery (1) How content is understood and retained

Case Example (1) How content is understood and retained

One mother, whose local Children's Centre had run a five session group course based around the Five to Thrive messages, described how she had understood and retained the content:

"It was ...a five week course... they just went through how doing and saying some things does help your baby ... playing and interacting with them helps the brain, and that. They had five different principles. The main thing was how important it was to interact with her, play with her and things like that. That's what I took away... that's really going to help her with her development, and the more you speak to her the more she's going learn to interact with you and respond"

Mother 01

This mother had attended a talk given by a health visitor, held after a baby clinic:

"She talked through the pamphlet (booklet), and gave some examples, about what you could do with each of those building blocks. There were some facts she started off with – like, was it, by the time the baby is one their brain is three quarters the size of an adult or something, which makes you think 'Oh my God, it's so important what you do with them in that first year!' I think everyone should be told about it really. It is very easy to understand the way it is laid out in that leaflet, and the way she described it – and I think it's good the way it is broken down into section or chunks...Its obviously quite a complex topic, isn't it, but it was all broken down nicely"

Mother 03

Box 8 Case Example, Structured Delivery (2) How the My Baby's Brain messages are confidence-boosting for parents

Case Example (1) How the My Baby's Brain messages are confidence-boosting for parents

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Generally, there was evidence that hearing about the messages mainly served to build confidence for parents, especially those who were first time or anxious parents, or as one health visitor put it, *“emphasising and reinforcing what they were already doing”*. This was often described as amplifying pre-existing positive parenting behaviours, rather than leading to any radical changes:

“I don’t think I would have been doing anything differently (prior to the My Baby's Brain sessions), I just would have been not quite so happy that what I was doing was Okay or right. It was... reinforcement that what I was doing was ok. When I came away from each session I felt quite reassured that the things I was doing ...were right. I’d go back to my husband and I’d say: “We were told this, and it’s nice to know I’m doing something quite well...and my instincts are (ok)”. ...And I think the one about ‘cuddle’ – I (heard something) that made me worry that I cuddle her too much and make her clingy, but it (the My Baby's Brain session) did say that basically, you can’t cuddle too much. So that was nice to know that it’s not necessarily bad that I do cuddle her a lot”

Mother 01

Box 9 Case Example, Structured Delivery (3) How the My Baby's Brain can influence parents' attitudes and behaviours

Case Example (3) How the My Baby's Brain messages can influence parenting attitudes and behaviours

One mother had been persuaded by her health visitor to attend a talk focusing on My Baby's Brain after a baby massage group, and had (afterwards) been given the Guide for Parents by her health visitor:

"It was about giving your baby attention and not talking on the phone and ignoring them... and responding to how they are reacting and letting them copy what you're doing ...so you're interacting with them.... and with the booklet, with the baby talking to you about how it felt safe when you cuddled them and that sort of thing, it just brought it home a bit more, if you like.. it does pull your heartstrings a little bit!. You think 'yes I want to pick them up and cuddle them and look after them'... Maybe now I would cuddle her that little bit longer, just so she feels safer... It's just enhancing what I was already doing"

Mother 02

I don't know if it will change anything that I would have done before, but it's nice... for someone to say it's (good) to have a cuddle as way of helping their development! And my partner [who she talked to about it afterwards] he was quite interested in the bit about playing, you know, if you stick your tongue out over and over the baby will repeat it? He found that quite interesting and gave it a go"

Mother 03

Staff working with families with additional needs in targeted contexts also made use of a structured style of delivery of the Five to Thrive messages.

For example, in case work, staff used the five principles themselves, as thinking aids to help inform case planning processes. They were also able to use the simplicity of the My Baby's Brain materials to help them explain more clearly to parents what was meant by responsive, sensitive parenting, why it was important, and how staff would use this information to assess progress and check that all was well.

"(My Baby's Brain) would certainly be part of any meetings that we're having. Any court meetings, any child in need meetings, it would certainly be part of that. When I do my statutory visits I will be hoping to see parents doing it (demonstrating the five principles). It's made me more aware in being able to pinpoint (particular issues)"

Social Worker

"We discussed (the Five to Thrive) as part of the Review meeting to find out how (a mother) was getting on, just about keying into the five areas....making sure she does know how to play with her baby, does hold him in a way that makes him feel the warmth from his mum, teaching her how to respond to the different cries and get into a routine to be a responsive mum....(And) I think they were quite open to it.That case is a Child In Need; we have to do a plan, and as part of that we have to cover health, education... and you know, with babies, the value of relationships isn't always (made) evident (in those plans). But now we can ...be quite detailed that the part of the Five to Thrive that is part of 'education' is to appropriately play and stimulate, and that's what needs to be done. It's provided context; it's provided key goals for parents that we can then clearly document in our plans that we have to review. We can put key needs into the plan, and base some – or at least some of them – on the Five to Thrive areas".

Social Worker

There were also some impressive examples of whole-team working by teams around families, where practitioners in different roles were using the My Baby's Brain messages as a unifying structure around which to co-ordinate and mutually reinforce one another's work with highly vulnerable families;

"One of the families I am working with, they (the parents) have learning difficulties and the family is having problems adapting to the child's changing needs. All the professionals in the Children's Centre, the nursery nurse and myself, what we do is every six weeks we change a block (with one the five messages on it). At the moment we're still on 'respond', and then after the next meeting we'll change and go on to 'cuddle'. (We rotate the messages), so with certain families we concentrate on only one block (at a time) and then all the professionals involved with that family use only that block. We've done 'respond' and we'll do that for six weeks, and then we'll go on to the next one. But all of us send the same message about 'responding'. And you can actually see the difference in the family and the parents, and the way they engage with the child"

Assistant Social Worker

Finally, some practitioners working with parents of children who had learning difficulties or emotional difficulties had even found the Five to Thrive messages useful in work with much older children, showing that My Baby's Brain was already being extended well beyond the infant age group it was originally aimed at:

“Actually I have been using it in supporting parents of (school age) children with ADHD. I tailor the information to what would work best for me, and I can relay the information to parents on the importance of the five aspects because I think they are quite relevant up until ...they go into secondary school. I really try to push forward the ‘respond’ aspect, as especially with ADHD (children) they tend to draw quite negative responses from parents and from schools as well, and looking at the ‘respond’, the positive aspects of it and how promotional it can be for a (child’s) self-awareness and emotional and mental wellbeing... that’s really stuck with me”

Children's Centre nurse

6.4 Implementation risks: possible negative effects on parents

There is no evidence at this stage that My Baby's Brain carries any risks of potential harm to parents of children, and most practitioners that we spoke to found it hard to think of any potential problems in this respect. However, a number of practitioners commented that My Baby's Brain might potentially carry risk if implemented with insensitivity or lack of attention to context. This was especially thought to be a risk with parents who were excessively stressed, or who were depressed. They worried that the confidence of some parents could be unhelpfully dented if messages such as those contained in My Baby's Brain appeared to offer an unrealistic ‘counsel of perfection’ to parents, or left them with the impression they could do permanent harm to their baby by failing to use the messages.

Some also worried more generally that attempting to start conversations about any of the principles might be offensive and alienating:

Q: So when you work with parents in your normal practice, would you be explicit with them about it’s important to talk, cuddle, respond etc?

“I think parents would be very offended if you had to literally spell those things out. It’s more modelling behaviour, really. I think you have to be quite diplomatic because parents do always feel they are doing their best for their child. Certainly we have to be very careful not to alienate ourselves from families. For a lot of people its common sense and they do it without being told, but for some families it doesn’t come naturally, maybe... I think I wouldn’t ever tell parents ‘it’s important to cuddle your child’ or something like that because I think people would be very upset if they sense that they weren’t doing something so basic and fundamental”

Health Visitor

Health practitioners, in particular, therefore tended to emphasise that the messages must be communicated “in a nurturing way”, and were keen that the ‘relax’ message was given proper prominence within the Five to Thrive:

Q: are there any potential disadvantages about My Baby's Brain?

“I would hate for it to become another thing to beat these poor parents about, to say: “Right, you’ve got to do this or you are failing as a parent”. I would not wish something that is supposed to help them become another source of stress”

Health Visitor

“It is possible to deliver My Baby's Brain wrong? Possibly, if we’re talking about a practitioner who hasn’t got that sound child development knowledge.... they could just be... very prescriptive, I suppose”

Strategic Stakeholder

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There may also perhaps be a risk that parents could become unduly anxious they have damaged children permanently if they have not paid due attention to the five messages in the past.

For example, one parent had internalised the messages thus:

“They were saying, if you don’t connect with your child in the first year, I think or possibly three years, I’m not quite sure now.... that that part of the brain dies, and it can’t be repaired”

Mother 04

It may be important to remember that children’s (substantial) developmental resilience needs to be properly explained to parents, alongside the positive benefits of a ‘Five to Thrive’ model.

7. Implementation readiness

7.1 Introduction

In this section of the report we focus on the wider aspects of implementation beyond the way in which practitioners used the approach in practice, and in particular, explore aspects of ‘readiness’ that were highlighted as important for implementation quality and shown in **Figure 3** in Part One. Readiness includes both readiness of the model, and readiness of the people who will deliver it. These are relevant for understanding implementation outcomes,

and, beyond that, the ultimate outcomes for service users. In this section we draw substantially on data from qualitative interviews with strategic stakeholders in strategic and operational management roles across health, children's services including early intervention and prevention, and children's social care. We also draw on the data from practitioners.

7.2 Readiness of the model

One of the key aspects of readiness for implementation is the extent to which a new innovation is communicated, understood, and embraced by those who will have to support it at management level, and those who will deliver it on the front line. An 'implementation-ready' innovation will be plausible, clear and reasonably specific about what people have to do in order to deliver it to service users. In the case of My Baby's Brain, we also explore a key aspect of the implementation of the model – the training – to determine how well it conformed to principles of effective implementation.

The approach of My Baby's Brain lacked the formal articulation of key components and their relationship to anticipated outcomes that would be required for it to qualify as a fully-developed model. There was in Phase Two no formal 'logic model', and although the core elements (the Five to Thrive principles) were clearly set out, the implementation model (how precisely are these to be conveyed to parents) and the connection between each of the five messages and the intended outcomes (as shown in Box X) was not specified and was articulated at a fairly high level. (This is sometimes called a 'theory of change').

Nevertheless, there was no evidence in the research that stakeholders regarded the approach as lacking plausibility. They believed it could be effective, and could intuitively understand the logic of the Five to Thrive approach. In terms of clarity of the model, findings were mixed, however. As noted, the key elements of the content were extremely clear and this was felt to be a substantial strength. However, the clarity of the approach in terms of its readiness for implementation was less developed. The effectiveness with which the parameters of the approach were communicated to practitioners during the training was also mixed, with some feedback on the training very positive, but some more equivocal.

7.2.1 Plausibility of the approach

It is a key strength of My Baby's Brain that its content is derived from a strong body of theory and evidence on the importance for early development of secure attachment to caregivers, and from the rapidly growing body of evidence from brain science regarding the significance of caregiver responsiveness for the developing infant brain. For many stakeholders, especially but not only in health, a key contributor to the plausibility of My Baby's Brain was the connection to theory and evidence

“People have got a thirst to have a model which is somewhat evidence-based. Maybe they haven’t had a model which is so easy and meaningful to pick up on before.it just inspires people, really, and they think ‘Well, this is something I can get hold of really quickly’ It is...what we should be doing. It shouldn’t be too dissimilar to any of our (other) training...I think we’ve taken it on board as a service. It’s something that is recognised as something we will be doing, and we should be doing, by our service.”

Strategic Stakeholder

Practitioners also responded well to this, finding the subject matter both “*fascinating*” and “*exciting*”:

“It’s a very good model because there’s a theory behind it”

Children's Centre Manager

They were able to deploy the authority and credibility attached to evidence-endorsed messages in practice, both with parents (for example, to counteract misinformation about optimal child rearing practices), and in professional settings such court proceedings.

7.2.2 Clarity of the Five to Thrive messages

My Baby's Brain was extremely strong in terms of the simplicity and clarity of the ‘**Five to Thrive**’ messages. Indeed, the greatest strength the My Baby's Brain approach, according to every participant in the qualitative interviews and numerous comments made in post-evaluation surveys, was the simplicity, clarity, specificity and accessibility of the ‘Five to Thrive’ messages in particular. As one Children's Centre worker said: *“I love the simplicity of it: I can’t wait to use it”*. Although (see below, section 7.2.4.3), not all those trained could accurately recall the detail of the five messages exactly as presented in the training, there was no evidence that staff had left the training unclear about the overarching message. For example, asked to sum up the My Baby's Brain project, this Children's Centre manager noted, succinctly:

“It’s highlighting the importance of very early attachment and brain development, but also highlighting the importance of significant adults in that process”

Children's Centre manager

One strategic stakeholder noted:

“I think it’s a really simple concept and it doesn’t matter what your professional background. It’s so easy to see the applicability of it, and it’s a very simple message to get over with professionals and to families. You really can’t get a simpler more straightforward tool to use to intervene early”

Strategic Stakeholder G

Practitioners also thought the messages were highly accessible for parents, and ‘easy to take on board’:

Q: what is the best thing about using My Baby's Brain?

“I thought it was very clear, simple - basic building blocks, nothing too complicated and I liked it. I thought it wasn't too scientific in its language, and was just very easy to take on board. It is just like your daily five (fruit and vegetables). It is practical to use in the sorts of environments we are working in, because sometimes you can't spend lots of time, but the concepts are fairly easy to get over”

Health Visitor

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Practitioners and stakeholders also could not praise the **supporting materials** highly enough. The booklets for practitioners and parents were universally admired, with typical comments being *“I love the booklet!”*. Positive comments emphasised the design and visual layout, the text (which many described as ‘powerful’ and moving), as well as the positive tone. And although supplies of the booklets were not as plentiful as many would have liked (see later), the fact that the booklets were ‘parent ready’ was much appreciated:

“I've got my little booklet with me all the time – it stays with me on my desk and it goes with me when I go out on visits. I've photocopied it, so I don't damage my original...!”

Assistant Social Worker

“I think for people that aren't very literate, it would be very easy to sit down with someone and go through it. Sometimes we get booklets that are too short and some of them are too long. I thought it was very clear, nice and big, not too much, but enough and a variation of the different information for each section, like the child's perspective and then some suggestions of how they could do it. I think it covered a lot more bases than a normal booklet or leaflet might. That was the first training that I came away with something to give directly to parents. It was very, very good”.

Social Worker

“I've ordered more leaflets [booklets]. I think they are good. They are really simple and lovely the way it is written, like the baby speaking: I love that, I think it's really powerful. I've cut up one of the leaflets and made a display of it and you can hear the Mums going: “ahhh, read that, read what the baby says about that!” . The pictures and words are very powerful, and they're not preachy. I have given (other sorts of leaflets) out before which are really very good but they are still a little bit wordy and they'll only reach a certain type of audience. Whereas this, the way it is laid out its easy to read and accessible”

Children's Centres Outreach Worker

“They are written in a very positive tone, and they encourage parents rather than warning them about the dangers of not doing things in a certain way”

Children's Centre Manager

Those practitioners who had customised ‘building blocks’ available from the Council to use with parents and babies also praised the ease with which the five messages lent themselves to physical aids: Page | 61

“I ordered some blocks from Herts Council: they’re a cube and they’re made of foam and they have clear pocket on the side, so I put the colours in the pockets and then I’ve written the words on... so it’s like you’ve got this physical thing to hold whilst you’re talking about it and I think people take away a memory from it: it sort of spurs me on to talk about things that I knew were important anyway. I always knew they were important, but it’s because it’s laid out so terribly simply. The blocks leave an imprint”

Children's Centre Outreach worker

Perhaps the only problem with the resources was there were not enough of them. Although the project team commissioned what they considered an ample supply, there were a number of reports of shortage of materials, with some participants unsure of what was available or where to get more stocks, and some staff (for example health visitors) appearing not to have their own stocks at all. Whether a failure in communications had occurred or that there was simply unanticipated or excessive demand, is not clear.

Q: Do you hand out the booklets to parents?

“They are normally kept in the Children's Centres, and we are not based there. So we are certainly not giving out a booklet when we go out to do any health visiting calls”.

Health Visitor

Q: Do you give a booklet to parents?

“No, I don’t. I take my own copy with me... Maybe that’s something I could look at in future.... ”

Assistant Social Worker

But even in Children's Centres, demand for the booklets exceeded supply:

“The booklets: I think we’re getting about 50, but my understanding is when they’re gone, they’re gone. I would like to have enough for (any parent) to take one if they want, but we definitely don’t have enough to do that. I would like to send one in the post... I get the live birth data every month – approximately 30 families each month who’ve had a new baby. They get a letter and an invitation to come to the Children's Centre and I’d like to send them something about My Baby's Brain but I don’t have enough of it....”

Children's Centre Manager

7.2.3 Specificity of the model

7.2.3.1 Lack of clarity about who My Baby's Brain is for

As we have noted, My Baby's Brain was promoted by Hertfordshire first and foremost as an approach suitable for use in universal settings. Most practitioners did indicate a grasp of the universal, public health applications of My Baby's Brain, with over eight in ten (84%) saying in the pre-evaluation survey that they expected the training to be useful to their work *'with all parents'*. However, some practitioners had formed the impression that My Baby's Brain was more suited to work in targeted settings. Thus, prior to the training one in ten (10%) thought the training would be *'mainly useful with first-time parents'* and one in sixteen (6%) thought it *'mainly relevant to 'parents with above average needs'*. Participating in the training had not modified these assumptions : in qualitative interviews some health visitors (in particular) noted that they considered the five messages were much more relevant to parents in targeted groups (ie, vulnerable or disadvantaged families) than to all parents, and also felt that the messages were mainly relevant to first-time parents or parents with whom they were working one-to-one:

"I would think first time mothers particularly... also there are some parents that if they've got social issues, financial problems of relationship problems, lots of different things are impacting on their experience with their baby, you definitely might need to work more with those parents. They might need a bit more emphasis made on the Five to Thrive"

Health Visitor

"Obviously (its suited best to) mums that are depressed, that are having difficulties bonding with their babies. And people that have children on child protection plans, children in need, those sorts of families. Young parents definitely. So I think it's much more targeted to targeted families"

Health Visitor

Some also felt the design that lacked clarity on the age range for which My Baby's Brain was suited:

"I didn't feel that the course was very age specific which would have helped because we're dealing with children nought to five. It was just delivered as this is what you do (irrespective of the age of the child). I was aware there were social workers there and people from other disciplines but I'm not quite sure what age they were dealing with. Obviously it should be more age specific because what would be appropriate for a young baby, might not be appropriate for an older child and maybe an even older child still".

Health Visitor

7.2.3.2 Lack of specificity about the core components and how they fit together

Implementation science repeatedly stresses that in order for innovation to be successfully adopted within systems, it is important that there is clarity about what are the 'core components' (or 'active ingredients') of the innovation. Clarifying the core components of an innovation is not only relevant for 'manualised' programmes. Implementation theory suggests that time spent defining core components is just as important, if not more important, for flexibly-applied practice approaches. Core components are not just about content (**what** is said to or done with service users as part of the new approach); they are also critically concerned with **how** the new approach is delivered (for example, by whom, to whom, for how long, over what period, in what format or setting, etc). Research has repeatedly shown that the most effective interventions are those with clearly set-out core components, where both fixed elements and variable elements are identified. These provide the only way for practitioners and supervisors to be completely clear and purposeful about what they are doing: what is new or different to practice as usual; how much of it they should do, where, when and with whom; and to what extent they can adapt or vary the approach as the circumstances require. Identification of the core components and a good understanding of how they fit together allows practitioners to monitor their own practice, and to feel confident about using (or deciding not to use) the approach in different settings or with different clients. It allows operational managers and service planners to identify the practical and resource requirements necessary to support the implementation of the new approach. It also allows everyone to be clear about the intended outcomes of the new approach. Most critically for the development of evidence-informed and more effective practice, the identification of core components also enables *measurement* of the outcomes, since it makes it possible to disentangle what is expected to be the 'added value' of the new approach over and above what practitioners were already doing, and to confidently identify whether a service user has in fact received or been exposed to the new approach.

Although there was no doubt that the key elements of the approach involved five key messages (the Five to Thrive principles), when we asked practitioners and strategic stakeholders to define 'My Baby's Brain', (as distinct from 'Five to Thrive') and especially to identify how they would know or observe that My Baby's Brain was being used in practice, there were a variety of responses. Whilst most felt sure that there was a distinctive approach that could be identified as My Baby's Brain, few of them could put their finger on it beyond naming the five key principles. Most people were unable to describe what constituted all the core components of the implementation approach, and no-one was able to identify what were fixed and what were variable. So, for example, were the active ingredients restricted to the five principle or messages? Could these be split up or must they

be delivered together, as a package. Were the booklets and other materials key active ingredients? These remain open questions, as does the question of how 'My Baby's Brain' is different (if at all) to the foundational 'Five to Thrive' concept.

Most frequently mentioned when trying to specify the core components in practice were introducing the five to thrive messages into conversation with parents, modelling warm, responsive, relaxed and playful interactions with babies and displaying the (various) materials. However, no-one was able to confirm a definitive set of elements that together constituted 'the approach'. Most importantly, no-one we spoke to was able to clarify whether, if any one of these elements were missing, the likely effectiveness of the approach would be lost.

Q: How would you be able to tell that My Baby's Brain was being used in a practice setting?

"Well, I guess you would expect there to be some visible signs... My Baby's Brain materials on walls and in displays, to back up other things that Children's Centres are working on. What I would actually hear or observe in an individual practitioner...?. I think I would find that harder to define....because so much of it is, although we're picking on the specific five things, and those anchors give people the 'ins' to those conversations with parents, obviously they are built on practice that would be there within a good early years practitioner in the first place. How you would pull that apart and say, "Well they wouldn't be doing that or talking like that if they hadn't had MBB training...." I'm not sure I know, frankly"

Strategic Stakeholder

"I suppose I would expect to see some modelling, talking to the baby, playing with the baby, having fun with the baby.... practitioners modelling that and demonstrating its OK to have time to tickle your baby's tummy, sing to them, cuddle them, pick them up, all of that's fine. So I think that's what we'd expect to be seeing from the practitioner"

Strategic Stakeholder

7.2.3.3 Lack of clarity about the implementation model

In addition to clarity about the active ingredients or core components, the replicability (and 'evaluability') of an approach is greatly assisted by specificity about its implementation model: in other words, how the approach will be used on the front line, by whom, in what circumstance, how often and so on. Lack of specificity can be a potential weakness in this respect when considered from the perspective of quality assurance. If one cannot define the implementation model (or models), one also cannot assess quality of delivery. In the case of My Baby's Brain (as with many other aspects of children's services across the UK and elsewhere) not only have the fixed and variable components not yet been fully articulated, there is also no clearly articulated 'implementation model', or guidance about whether there is a 'right way' or 'wrong way' to deliver the Five to Thrive messages. Thus, it was accepted that practitioners using the Five to Thrive messages will do so in a different ways, each with a different emphasis and style:

"It is still fairly new and each of my team will probably be using it in different ways. As a team we haven't said "we are all going to do it like this". I really wouldn't know what my other team members are doing."

Health Visitor

Whilst some practitioners felt comfortable with this degree of latitude in how they used the approach, not all were equally confident. Some would have appreciated more specificity. For example, in qualitative interviews many participants noted that they would like the opportunity for further discussion about how the model could and should be used in practice. Although the training days had included a session on implications for practice (see Box 2 Part One), and although some practitioners had attended a follow-up practice sharing day, this had not been effective for everyone. Many were still unclear and would have appreciated further guidance with a more specific set of suggested ways to put the model into practice:

Q: Was there much of a focus (in the training) on how you might use the ideas in your own work?

"I don't recall that connection being made in my head on the day. It's very interesting learning about an abstract scientific thing but I suppose I wanted it to be more on a practical (level) – how it would be used "

Health Visitor

Q: Is there anything that would be useful in addition to the training, to help you put My Baby's Brain into practice?

"We have the basis of the techniques and have taken it all on board (but) I think we're really (only) touching the surface of it and need to go deeper into it now. We're busy people, we've got lots of things on, so it's trying to focus people. I think it will be good maybe to focus more on the actual framework of it, and explain (the model) a bit more".

Children's Centres worker

Q: Do you think the one day training was enough?

"Yes, I think it was enough to get a start. I think it was enough to ...be able to work with the materials and actually use them. I think it might be useful if you had a plenary in three to six months' time to see how people actually were using them. ...Because we discussed a few ideas about how to use the materials in quite creative ways, but it would be interesting to...find out whether that had happened, how it had happened, whether it was successful and really to find out what models might be more successful than others....It's really trying to formalise that a bit more..."

Children's Centre Manager

And as one Health Visitor summed up, because the approach was focused on **practice principles** rather than **practice behaviours**, the job of translating the learning into new or enhanced practices was left entirely to the practitioner:

“I think it reinforced the value of modelling rather than actually giving me ideas about (how to) model behaviour...”

Health Visitor

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Numerous comments in the post-training survey echoed these points, where participants were asked what they would change about the training:

- *“more practical ideas of how to use in practice”*
- *“more information on how to 'mend' problems in the first year”*
- *“I would have liked more tips on how to recognise different attachment behaviours and “how to work with the parents to adapt their parenting*
- *“I felt I needed a bit more on how to deal with challenging situations in the field, for example, young parents and travellers”*
- *“I would have like to have seen a DVD of parents being taught how to use the five to thrive”*
- *“I would have liked video or visual examples (of use in practice)”*

In summing up these issues, it is important to recognise that one of the greatest strengths potentially of MBB (its flexibility to be used across multiple settings and applied in a variety of ways) is also, paradoxically, a potential point of weakness. It was clear that the concept of ‘fidelity’ in the context of an approach with this degree of fluidity and flexibility is of limited use, and over-emphasis on pinning down ‘a model’ could be positively counterproductive, stifling practitioners’ own judgements and preventing them from using the tools creatively and in ways fitted to the needs of parents. However, unless some firmer boundaries are drawn to define what is, and is not ‘My Baby's Brain’ in practice, the initiative risks becoming so variable and diffuse and context-dependent that it loses all distinctiveness.

Stakeholders were well aware of these questions:

“I think flexibility and fluidity is what makes it work because Children's Centres managers and other professionals feel they can take in on board and make it part of what they're doing... but the risk is that the message gets in some way corrupted or changed”

Strategic Stakeholder

“It's difficult to say what's wrong if we haven't defined what 'right' is, I suppose... But, 'wrong' could be, I suppose, choosing to put more emphasis on one element of the five than the others... but then there could be some circumstances where the rationale would be you would focus on specifically some elements, so that might not be wrong!.

As one stakeholder summed up:

"I think we are going to have to make sure that we keep some sort of fidelity to (the) ideals of the approach (because) we need to build it into the approach for a range of different people working in different areas and include it within their specification. It's keeping it fluid and flexible... (but) it's also keeping hands-on.....making sure it's doing what we want it to do"

Strategic Stakeholder

7.2.4 Clarity and quality of delivery of the training

As described in Part One, the one-day training sessions provided by the developers of the Five to Thrive approach were at the core of My Baby's Brain. Training was provided in multi-agency groups of around 30 practitioners each, drawn from health and children's services, and who covered a wide range of experience levels from student health visitors to managers in health and children's services of many years' experience. The sessions were each led by a single trainer, who used slides, interspersed with group discussion, and interactive activities and selected clips from a film, *The Wonder Years*, showing the development and relationships between a baby and his parents in the early years from birth to three years old.

Overall, the training was extremely well-received, but with some learning for future replications. In this section we explore how the participants responded to the training and how the training was implemented.

7.2.4.1 Overall satisfaction

Overall, assessed at post-test, practitioners were highly satisfied with the training provided, and **96%** 'would recommend it to others'. There were many comments on questionnaires praising the training (*"Fab! I loved it!!"*), and positive messages about the materials including in particular the DVD that was used. There were also many spontaneous comments written on questionnaires and in the qualitative interviews reflecting genuine excitement about the messages emerging from research and the developing potential for this field to inform more effective parenting support. Many felt it confirmed what they already knew or suspected, but were pleased to have the evidence to confirm it.

Asked ‘*did the day live up to your expectations?*’ in the post-evaluation survey, only 26 (12%) of those participating in the evaluation said they were ‘somewhat disappointed’ and of the rest, **67%** said the training ‘met their expectations’ and **20%** said it ‘exceeded’ them.

80% of participants reported that the training had contained ‘*about the right amount*’ of detail, although 14% felt there had been ‘*slightly too little*’. However, one third of participants (**32%**) said that they would make changes to the content of the training, and between them made various suggestions for changes. Broadly, the suggestions fell into three main groups; (1) more **detail on the scientific content** underpinning My Baby's Brain; (2) more **focus on practice examples** and tips for how to use My Baby's Brain in everyday practice; and (3) more focus on the **practical aspects** such as the venue location, timing, length and structure of the sessions.

It was notable that no comments were made indicating that the scientific or technical content was inaccessible or difficult to follow, as could easily have been the case with training dealing with neuroscience. In fact the reverse was true – practitioners wanted more detail and more discussion of the technical and scientific evidence, and some felt this had been given cursory attention and were disappointed. Given the receptivity to and high level of interest in the scientific basis for the My Baby's Brain model, it was notable that a substantial number of participants commented, both in the survey and in-depth interviews, that the extent and depth of the scientific content did not meet their expectations. Though this might have reflected aspects of the trainers’ styles (see below), it is clear that for some, more detailed and more wide-ranging exploration of the underpinning evidence base was what they expected and what, for them, would have made the My Baby's Brain training different to other practice development training they had been on. Since **94%** of participants indicated that they intended to ‘*follow up on today’s training, for example by reading more around the topic*’, the message appears to be that practitioners have a genuine appetite and capacity for more detailed information on this topic and would welcome being stretched in this area – there was no need to over-condense or oversimplify the scientific content. Although health visitors were especially likely to express this view, children’s services staff also wanted more depth:

“When it came to the brain and making all the connections and pathways, that’s a side we don’t touch on very often. Myself and my colleague would have liked a bit more on that.... You only get a limited amount of information, don’t you, on each thing?. We were really interested in that, but it would have been good to have a little bit more.”
Children’s Centre Worker

“I felt the course wasn’t terribly scientific, in...demonstrating lack of brain development as opposed to good brain development. It wasn’t referenced at all to studies... in our job we do have to give evidence, and in training, students have to cite evidence in their work. The students are expecting the sources to be referenced. I felt that would have been... useful...”

Numerous other similar comments were made in the post-training survey:

- *“a little more detail about the neuroscience evidence to support the principles in building babies brains”*
- *“a little more on science of brain development “*
- *“I think I need much more detail, more psychological study references, (it was) far too basic”*
- *“more detailed information regarding brain development and age. Also the impact of stress, and cortisol levels in the brain”*
- *“more content needed; you can’t just tell parents ‘you need more connections made in the brain’. I already know about this, but don’t feel a good framework was provided for early years practitioners”*

7.2.4.2 Quality of delivery by trainers

Two trainers were involved in delivering the training during the evaluation period. Trainer B delivered fewer groups (reaching 69 participants) and therefore was the subject of few trainee reports than Trainer A (155 participants).

There was evidence in the survey that the quality of the trainers varied, with associated variation in the outcomes from training reported by the participants. In short, although the My Baby's Brain model, and the content of the training, was clearly sufficiently compelling to withstand variations in trainer quality, poorer delivery by one trainer (who was also the trainer who delivered most sessions) was associated with lower participant satisfaction, and lower intention to use the messages in practice. Given that we have already seen that the translation of knowledge and good intentions into actual practice change is not a perfect process, this is an important finding that underlines the vital importance of maximising training quality.

First, there was a statistically significant difference in participants' *satisfaction* with the course, associated with the trainer delivering the programme.

Table 7 Whether the training day lived up to expectations, by Trainer						
	Trainer A		Trainer B		ALL	
	N = 155		N = 69		N= 224	
	N	%	N	%	N	%
somewhat disappointed	24	16***	2	3	26	12
met expectations	110	71	43	62	153	68
exceeded my expectations	21	13	24	35	45	20

Base = n224; percentage may not add to 100 due to rounding. ***p<000; Chi-squared test.

One Health Visitor commented:

“If I’m completely blunt, I felt a bit patronised. Our particular lecturer was very stereotyping of particular groups of people. Actually I found that quite offensive... it just felt very narrow”
Health Visitor

(However she did also note:

“The two students (who went from my team) thought it was absolutely fabulous: they liked it very very much”)

Second, there were differences in responses to questions about the likelihood of practice change related to the two trainers. Those trained by Trainer B were more likely to agree strongly that their ‘way of working would change’ (76% scored 8, 9, or 10 on the scale) than those trained by Trainer A (64% scoring 8 to 10). This is an important finding indicating that the quality of the trainer may impact on intentions to use the messages after training. However, reassuringly, over time the differences between the two trainers showed less sharply. 29% of those trained by Trainer B scored 8, 9 or 10 on this scale at follow-up, compared to 25% of those trained by Trainer A. Importantly, there were no differences in actual use in practice reported at follow-up.

7.2.4.3 Clarity and memorability of the messages: did practitioners recall the ‘five to thrive’?

There was consistent agreement across all aspects of the research that the five messages that make up the *Five to Thrive* model underpinning My Baby's Brain (*respond, cuddle, relax play, talk*) were simple, accessible and easy to remember. But to what extent did practitioners recall the five accurately after training? At the follow up stage, we asked practitioners ‘Can you recall what the five *Five to Thrive* key terms are?’ (together with the instruction: ‘Please don’t look them up! We’d like to know what you remember’). Only 65 people responded to this question (29% of the original sample) so we should treat the results with caution; however, the results suggested generally acceptable recall – 74%

recalled all five key terms correctly, 18% recalled four out of five, and the remainder recalled the principles but expressed them in different terminology.

In qualitative interviews most respondents admitted to not always being to recall all five messages:

“Well I have been quoting the Five to Thrive, going around: I have been trying to say to people - I think it is: cuddle, respond, stimulate, touch? But there is always one I can't remember!”

Health Visitor

Q: Do the five message stick in your mind?

I'm afraid they don't!

Q: Could you rattle them off now if I was to ask you?

No, not really! That's terrible isn't it?...I think it was something about play, stimulate...

I don't know. I'm going to cheat! (and look at my notes)

Health Visitor

7.2.4.4 Was the training pitched at right level?

A key design element of the training was that it was multi-agency and aimed at people with diverse levels of prior experience. Almost all participants in interviews were positive about being in training groups with people from different agencies and professional backgrounds. Comments such as the following were typical:

“I think it really helps link up the work that we do with Children's Centres and health visitors because now everyone's trained to look for the same things. Now we [social care staff] can say to Children's Centres, 'look, you need to look out for this; is Mum able to do this?' Particularly in neglect cases, it's been really helpful in terms of bringing it all together. It just helps us to be joined up, and singing from the same hymn sheet if we all know what we're looking for.”

Social Worker

“You do tend to focus in only on your own experiences (if you train with your own agency only). I think it enhanced the day to have different thoughts and different experiences offered about different things”

Health Visitor

However, despite the favourable reports from practitioners regarding the multi-agency format of the training, what perhaps did not work so well, in implementation terms, was the mixing of levels of experience in the groups. This meant that some more experienced participants felt the training was *‘pitched too low’* to allow for less experienced participants,

and may have exacerbated the feeling expressed by some that the scientific and research content had been diluted. This seemed to be a particular issue for health staff:

“I think because of the diverse people in the audience I’m not sure (the trainer) knew where to pitch it. It’s always helpful to do it multidisciplinary ...but I think it would be helpful to have people who are at the same sort of level in their particular discipline”.

Health Visitor

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“It is very useful that people come from different backgrounds, they have different perspectives, different understandings, have different experiences, but the other side is it is, of course – it depends how you pitch it, because some people come from more of a scientific background or a nursing background, where other people come from more the social care background, therefore, they are looking more at the social care aspect, whereas a more medical background, you are looking more at the scientific and the medical model, perhaps. I think for the level of training that we were given I think it was fine; I think it was okay. (But) if you were going to give that training to different groups of people from different disciplines, you may actually pitch it slightly different for every group.

Health Visitor

Overall, it can be seen that the training was well-received and enjoyed by most participants, who found the subject matter engaging and appreciated the opportunity to train in multi-disciplinary groups. Given that not all participants had elected to attend (but had been directed by managers), the high levels of satisfaction speak well for the quality of implementation. There were however one or two learning points. A key aspect is the level at which the material was pitched and the extent of scientific detail: participants generally wanted more detail and more challenge, and health practitioners in particular will require well-presented and properly substantiated content. Whilst multi-agency groups were fundamental to the intentions of the initiative to cross sectors, it may be that groups could have been better-structured in terms of levels of peer experience.

The trainers varied in quality and this had a direct impact on participants’ satisfactions and on their reports about intentions to use the learning in practice. The fact that these differences did not, however, show up in actual practice use is reassuring, and suggest that the My Baby's Brain model is compelling enough to withstand variations in training quality (although to an unknown extent).

7.3 Readiness of people, services and system partners

7.3.1 People

A key factor that may help or hinder the ease with which a new innovation is adopted of implementation at the level of individual staff and practitioners is how well disposed staff are to change and innovation. Attitudes to change may of course be influenced by many things, including workloads and other aspects of resourcing. As we saw in previous Sections of this report, even staff who were least enthusiastic about My Baby's Brain were willing to make efforts to use the approach in practice. In general, and despite reports of recent re-organisations and significant pressures on staff time in some parts of the workforce, most practitioners who participated in Phase Two seemed positive in their personal attitudes to the project, and keen to try and find ways to incorporate the changes to practice that My Baby's Brain suggested. The good take-up of the training offer was also an indicator of willingness toward innovation, and the contention of one stakeholder that My Baby's Brain “*inspires people*” was largely borne out by the responses of individual practitioners participating in the evaluation:

As one strategic stakeholder in health put it:

“It wasn’t hard to get it taken up – in fact I’ve never encountered a training programme like it, where everyone wants to go on it and no-one is looking for reasons not to participate”

Strategic Stakeholder

7.3.2 Services and agencies

The research suggested that children’s services agencies were perhaps the most enthusiastic champions of My Baby's Brain; health agencies perhaps the least.

The project was felt to have been warmly embraced by Children's Centres across the County:

“Children's centres have come on board in leaps and bounds”

Strategic Stakeholder

Senior stakeholders in social care noted that take up had also been excellent in child and family social work.

However health agencies were noted to be less positive. Some (but not all) senior stakeholders attributed this to a generalised ‘change fatigue’ arising out of recent re-organisations in the County (and nationally) in the health sector, rather than to any

particular aspect of My Baby's Brain; but some senior health managers we spoke to were not, in fact, wholly positive about the 'added value' of My Baby's Brain to their agency practice:

"I would say health visitors already knew most of this, and for a health visitor, actually it's a bit like trying to teach your grandmother to suck eggs"

Strategic Stakeholder

Q: Has it won hearts and minds in health visiting?

"Hmmm. I would say most people's, certainly the younger ones, the more newly qualified ones. But I suppose although it's a new initiative, some of us that have been around (a long time) (feel) that the fundamentals have always been there"

Strategic Stakeholder

"I think it was a bit slow (getting people on board) initially. Getting health visitors to do it is very challenging. The turmoil in health is such that getting them to agree to do anything and actually carry it out is very difficult across the board. I think they have change fatigue, really, and the culture and getting them to embrace another initiative is very challenging. I think it's more of a resistance thing than a reality. I think it's dead easy to do (My Baby's Brain), because the amount that you do depends on how much time you've got. You could just focus on the five a day bit, and keep repeating that, or you can talk to families: do you use, have you tried this, have you tried that etc. It doesn't take a minute, does it?"

Strategic Stakeholder

Some stakeholders attributed the different approaches to innovation between different sorts of practitioners as about ways of working in different sorts of agencies. Children's Centres were seen as more inclined to a team-based approach whilst health visitors worked more independently. Some also thought that the professional culture of health emphasised more independent judgement about good practice:

"I think we've had more success in telling Children's Centres that they are expected to do this. I don't think you'd tell health visitors what to do and then expect them to do it! They will say: "We're autonomous practitioners. We'll listen to what you say and if we think it's a good thing, we'll do it, and if we don't... we won't"

Strategic Stakeholder

7.3.3 System partners

The general feeling of senior cross-system stakeholders with whom we spoke was that Hertfordshire had historically been an authority that was extremely open to innovation and change, with a culture of genuine interest and excitement around the continuous improvement of services. However, some thought that My Baby's Brain was a new departure to some degree, building on previous attempts at innovation in multi-agency working but also extending them. Overall, this seemed to create a feeling of positive interest

and excitement in at least some parts of the system (but see below: System reach and influence), supportive of implementation both directly and indirectly.

Q: is My Baby's Brain a departure from the norm, or the kind of thing you've been doing for years?

"I'd say there's a continuation of the direction of travel, but taking it a lot further. We don't deliver early years services (directly); we've always commissioned our Children's Centres. So we've always had to work with other sectors, and we've always had to work in partnership. The difference (with My Baby's Brain) is we are really putting into practice all the things people have been talking about for years.... there's always been a good relationship between early years and health visiting (but) here we are giving them something they will use as the same tool, the same approach, and that hasn't been the case before. So whereas people will say we were working in partnership, this is taking it a lot further"

Strategic Stakeholder

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8. Implementation 'fit': people, services and the wider system

In this section we explore our model of innovation (see **Figure 3**, Part One) from the perspective of implementation 'fit' of My Baby's Brain at the level of individual practitioners; the organisation or agencies that employed them; and the wider system of services for children and families within and across the County. Clearly, each level plays a different but important role in optimising the potential outcomes of the initiative. Practitioners themselves are key: if they do not use the messages or use them ineffectively in practice, then not only will benefits not be passed on to parents, it is theoretically possible that they could do harm to parents (see Section 4, Impact on parents). However, practitioners are in turn enabled or constrained by the services and organisations in which they work, which may support and reinforce willingness to innovate, and flex to accommodate new practice routines and relationships; or alternatively may cramp innovation and constrain resources in unhelpful ways. Finally, services are, in turn, enabled or hindered by the broader system in which they sit.

8.1 People and Practices

At the level of individual staff involved in delivering My Baby's Brain, a number of factors stood out as particularly relevant to understanding the implementation process in Phase Two of the initiative. Overall, My Baby's Brain was a good 'fit' from the perspective of

practitioners on the front line, and they were generally willing if not actively eager to try out the new approach.

8.1.2 Prior experience and training

The staff trained in Phase two varied substantially in terms of their previous level of training, as noted in Table 1, Part One. Amongst children's services staff, Children's Centre staff in particular were a 'newer' breed of professional, and tended to have fewer years in role than health staff (even if substantial practice experience in different roles in earlier parts of their careers). This may have impacted on their receptivity to the messages and ideas of My Baby's Brain, in that for these staff the material was reported to be newer and more exciting.

On the other hand, practitioners who had had prior professional or vocational training in child care and child development were already familiar with the basic idea of attachment theory. This appeared to assist the ease of implementation, building to some extent on familiar ground but extending and enhancing existing knowledge with up-to-date information from more recent scientific study. Some managers observed that more experienced staff may have been better able to take the messages immediately into practice:

"I think that practitioners who've got a solid child development background, who've then added the My Baby's Brain learning to that, are the most effective. I think it's not as effective if it's a member of staff who only has that really detailed information from My Baby's Brain. ..It needs to link in with other information about child development, rather than be a standalone "

Children's Centre Manager

8.1.3 Skills and competencies

Strategic stakeholders saw My Baby's Brain as fitting well with the existing skills and competencies of all of the groups who attended the training, but also saw the initiative as adding value to these. One senior stakeholder noted, in respect of social care staff, that the flexible, 'principle-led' approach of My Baby's Brain was consistent with supporting practitioners to make their own, informed judgements and was more about 'training for judgement' and less about 'training for skill' in a narrow sense.

"It doesn't duplicate. I don't think there's anything else like it. I want to move away from training social workers or sending them on training courses for skill development, and this fits nicely in my plan to give social workers confidence by enhancing their skills as opposed to just giving them information that they could read on their own anyway"

Strategic Stakeholder

However, a strategic stakeholder in health noted that in respect of the ‘embedded’ style of promoting the messages: *“Not all Health visitors necessarily have a really strong skill in that way of working”* and some health visitors, and particularly perhaps those trained many years ago in a more didactic style of interaction with parents, might struggle a little. Some of the comments from health visitors themselves seemed to confirm this, as they seemed to regard the Five to Thrive messages as something that had to be added on, rather than woven into their existing practice:

“I think because we [health visitors] have less contact with the parents in the home, I don’t think it’s so easy to deliver the messages.Particularly on the first visit we make, which is quite lengthy and there’s a lot to get through and sometimes I think we’ve overstayed our welcome by the time we’ve done all our bits [required elements]– I would be reluctant to start launching of on another aspect (like Five to Thrive) at that point.

Health Visitor

8.1.4 Fit with existing practice

‘Fit’ or relevance to the daily practice situations that practitioners find themselves in is also a factor that critically affects whether new models of working can be easily implemented. Both the underlying principles and the flexibility with which My Baby's Brain could be applied in practice were reported by staff and by stakeholders to be a strong fit for the work of early years practitioners in the County, perhaps somewhat against initial expectations:

“At the beginning we weren’t quite sure how this would be received. The Gina Ford methods – quite rigid programmes – were popular... So we started off very muchto change what we thought might be an underlying culture, and actually that was the easy bit because the practitioners really believed it anyway.”

Strategic Stakeholder

The content of the approach also was reported to be a good fit by practitioners themselves, due mainly to the flexibility promoted by the approach, which positively invited staff to mould the messages around their regular ‘practice as usual’, be that one-to-one and informal, or structured sessions and group work.

Typical comments were:

“I think it is related completely to what we do in our centre”

Children's Centre outreach worker

“I’m using it in all aspects of my job”

Assistant Social Worker

As noted earlier, the flexibility of the model was a great implementation strength according to practitioners, and a key factor in fit. Because there was no prescribed method or order in which the messages had to be presented, staff had found it relatively easy to adapt and tailor the delivery to specific circumstances and needs. These quotes illustrate the variety:

"You could tackle one thing at a time. All the building blocks lead to attachment, but you can just concentrate on one thing at a time - when you've just had a baby your brain's a bit mushed - and just whilst talking to people I can concentrate on responding one week, and do cuddling another week. It felt like something I could adapt to my way of doing (my work)"

Children's Centre Outreach Worker

"The five areas are all important, aren't they? But obviously in a situation in an outreach where a family isn't responding well to their child or isn't communicating well, then we would use those areas to focus on. We probably wouldn't do them all in one go"

Children's Centre Outreach worker

In addition, as well as using in a responsive, *ad hoc* way, many of those doing group work in Children's Centres were at the time of the research developing plans for creating more elaborate structured sessions or series of session themes around the five messages. This had contributed a 'focus' to some aspects of group-based work that Children's Centres in particular had found very helpful:

"I think it has helped to give a focus to some sessions that we run, like our [drop-in/coffee morning for new parents]. We were struggling to make it meaningful, not just a place to go out and meet people – that wasn't enough. So having the My Baby's Brain for the team to use (in the group), meant that there was now something they could definitely focus on for that group."

Children's Centre Manager

However, in some specific instances, health visitors in particular sometimes found the fit of My Baby's Brain with their usual practice less comfortable. For example, some mentioned that the practice of 'controlled crying' – allowing babies to cry and self-soothe in certain circumstances - could work against the 'Respond' message of Five to Thrive. It appeared that the discussion in the training session had not felt sufficiently nuanced for easy application in practice by health visitors, and understanding this conflict better clearly requires attention by the developers of My Baby's Brain:

Q: How well-tailored was the training to your particular role?

"Well. Actually one of the things I wrote on me feedback was that we did have a discussion about controlled crying and really I found that was quite confusing - it conflicted with the safeguarding information that we have to give out as health visitors"

....The trainer believed that you should respond to everything – but we were talking about babies over ten months and you have to bear in mind what the parent can cope with and what their mental health needs are: some people really can't cope (with the stress)"

Health Visitor

8.2 Services and Agencies

Generally speaking the fit at the level of the key participating agencies was also relatively strong, though with variations between agencies.

8.2.1 Organisational leadership & champions

There were numerous examples of Children's Centre managers, for example, personally championing the approach and providing strong and active encouragement to staff to develop ways to use the five to thrive messages:

I definitely want (it) embedded into everything we are doing... my three staff who went on it came back buzzing: they came back saying (to me): "We've got to do something with this – it's fantastic!" So then we started (developing the idea for our sessions). Staff need a clear focus. Staff need to know, 'yes, we are prioritising this"

Strategic Stakeholder

By contrast, it was clear that some managers in health felt less wholly enthusiastic, and perhaps mostly saw My Baby's Brain as something for other types of practitioners to use rather than as central to their own practice. That being the case, they were less likely to take a personal leadership role and were more inclined towards a *laissez faire* approach:

Q: And will your staff use My Baby's Brain in their work?

It is up to them, just like any other piece of training. It's expected that once you do some training you will use it. I know that the majority of people I've spoken to have at least used the resources. They've done things like some rather nice displays in some of the clinic areas, they've used it to make some of the referrals onto Children's Centres if there's a specific element that they feel needs a little further support. Those sorts of things. But there's no tick box to say 'Yes, I've spoken about My Baby's Brain today"

Strategic Stakeholder

8.2.3 Resources and capacity

A key feature of My Baby's Brain that emerged as a great strength of the design – and in resource-constrained times, a strong contributing factor to 'fit' - was its low resource requirements, both in terms of the preparation required by staff, and the agency-provided resources required to use the approach in daily practice settings. Apart from releasing staff to attend the single day training, relatively little effort or time was required on the part of employing organisations in order for most practitioners to be ready to start using the model in their daily work. No lengthy training and homework, no expensive equipment, no significant space requirement or special preparations were required. For children's services organisations, it seemed it had been relatively easy to release staff to participate and to enable them to use the approach afterwards in their daily practice, especially in an embedded way:

"For us [a Children's Centre] it's meant we haven't had to provide lots of new things here...we've looked at our resources and been inventive, and brought things in from home, and talked with the parents about how they can (do the same). I think the simplicity of it is why it works, really"

Strategic Stakeholder

What about capacity issues and case loads? Do social work staff have the time to use My Baby's Brain in their work?

"Yes, if it's basic level because it's not that time consuming, it's very easy"

Strategic Stakeholder

"The feedback we're getting is very positive. It isn't an add-on, it isn't something different. (By contrast) we're doing some training with Children's Centres on 'lite bite' universal parenting course which are very popular, but they need to find time and capacity and a room to deliver such a thing, which is very hard. Whereas we're just building My Baby's Brain into the approach of core services that they have to deliver (anyway). I know some of the Children's Centres have got displays and stuff up about how babies' brains develop and using the (five to thrive) words and things. That's lovely, but they don't need to do that in order to embed it. It's not a standalone thing, it's just a way of working. (And) we need to keep an eye on that it's not taking up too much time because our Children's Centres are resourced to a very low level. There's a lot of (other) work they need to do"

Strategic Stakeholder

In health, capacity may however have been a limiting issue. Both health visitors (who did participate in the training in large numbers) and midwifery (who did not participate at all) were described as being very short of time:

"I think people ...doing more individual work with parents at home (can use My Baby's Brain more easily).... They are involved in a lot more play work with families whereas we do a new birth visit and we see them at the clinic but clinic time is only for a period

of 10 to 15 minutes while they're having the baby weighed and while they're consulting with us about a particular issue. So there's not a lot of opportunity to bring all that into play"

Health Visitor

"We're not up to strength the way our staffing should be by any stretch of the imagination. We have hot spots in three of eight localities, where we are still fairly well understaffed"

Strategic Stakeholder

"Health visitors have a lot to do and a lot to manage – which is why the message that My Baby's Brain should be 'woven into' health visiting, not seen as a 'add on' was so important"

Strategic Stakeholder

"I think we have had some struggles in terms of (engaging) midwives... midwives do feel, within Hertfordshire and no doubt elsewhere, quite pressurised in terms of the numbers (of patients) and the amounts of time they have ... and the fact that there's a whole raft of things they're mandated to do through their own service in terms of conversations they have to have with parents... there are feelings I think that they just can't fit everything in. If we said: we need your managers to release you for training, and we need you to build this into conversations you are having with prospective parents, they might say (no) because there's not enough midwives to go round just to do the basic work... I don't think they would disagree with the fundamentals, it would just be down to the practicalities"

Strategic Stakeholder

Some stakeholders also noted that for the on-going sustainability of My Baby's Brain, staff capacity could become a challenge as high staff turnover in some professions could mean that there was a constant need for new intake to be trained:

"With health visitors, (we) havea difficulty retaining them."

Strategic Stakeholder

"The biggest challenge to my area [safeguarding] is turnover of staff. They have to keep (training) on the same thing quite a few times a year to catch everyone up"

Strategic Stakeholder

8.2.4 Fit to way of working

Finally, My Baby's Brain was generally seen as a good fit not just for individual practitioners, but also at the organisational or agency level. Several stakeholders mentioned specific practice approaches and programmes already being implemented by agencies within the County including the Healthy Child Programme used by health visitors, the Graded Care Profile used in children's social care, Motivational Interviewing which had recently been introduced to Children's Centre practice, and various other parenting support programmes including the Solihull Approach, the Northampton Baby Project, and Protective Behaviours. My Baby's Brain was described in some cases as being such a good fit, it could be easily blended with some of these:

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"My Baby's Brain links very beautifully with Protective Behaviours, so we've used some of the key messages from that and filter them though into some of the work we are doing"

Children's Centre Manager

"I see it (My Baby's Brain) fitting quite nicely really, as a sort of first step and then the Graded Care Profile is (more) specific . A professional does it with the (parents) and they agree the scoring... it is very much around emotional care for the child so I think it fits really well in helping the parent to understand about the impact on that child's development and the importance of those early years. ... You could almost do the training together, I would have thought"

Strategic Stakeholder

However there was some suggestion in the research that flexibility might have been greater for children's services staff than for health staff, who in spite of being more 'autonomous' and independent, nevertheless had a more structured way of working and a firmly specified set of 'deliverables' that may have created pressure and a sense of less freedom to innovate. This may, in particular, have made it harder for health staff to work out how to use the approach in the naturalistic, embedded way that had been envisaged as most appropriate for their service:

"Children's Centres don't have individual nit-picky performance management things to do with each and every one of their families.... But how health visitors work is really restricting. They've got to tick this box and that (box) and My Baby's Brain is to some extent an add-on piece of work for them. Social workers do have a ridiculous number of performance indicators to address within our work, but they also have to do direct work with families. How the social worker uses it, how the social worker adapts what they learn and the particular practice that they develop is really pretty much down to them. So I think (My Baby's Brain) will be taken up more easily (by Children's Centres and social workers) than by health visitors"

Strategic Stakeholder

An alternative view, however, was that there was nothing preventing health visitors incorporating the My Baby's Brain messages other than their own personal willingness:

“Yes, I think that for health visitors there is a more structured set of things that have to be delivered (than there is for Children's Centres), but you could argue that ...if you're there, talking to the parents at a ten-day visit, at their eight month check etc, ... you could easily weave the My Baby's Brain stuff into that. Their (service) gives them the ability to reach everybody”.

Strategic Stakeholder

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8.3 System partners

At the systems (county-wide) level, a number of factors related to fit emerged from the research as having helped the implementation of My Baby's Brain. First, in terms of approaches to innovation, the wider system of children's services in the county was believed to be well-disposed to innovation, but also at an advanced level in respect of multi-agency working. My Baby's Brain was therefore seen as an ideal fit to local authority strategy and objectives around early intervention, and willingness on the part of systems leaders to champion the initiative was therefore strong and actively demonstrated. The low resource requirements for implementation by agencies and on the front line aligned well with wider strategic concerns about resource constraints on public services, as did the discovery that although originally designed to be a universal parenting support approach, My Baby's Brain in fact had valuable applications for working with higher need and targeted groups. The only sign that Hertfordshire systems were not entirely ready for the initiative was the more mixed picture in terms of cross-system engagement, in that some parts of the system were not yet being reached (see below, System reach and influence).

8.3.1 Fit to system strategy and objectives

The fit of any new initiative to the existing policy and strategic objectives and practice arrangements in the wider system of services is an important determinant of how easily a new approach can be adopted and embedded.

It was clear from the interviews with the senior stakeholders with whom we spoke that My Baby's Brain was a good fit to the strategy and objectives of the wider system of services for families in the County. Thus for example senior stakeholders and many practitioners emphasised that My Baby's Brain was an excellent example of an early intervention approach, noting that the County had recently been given 'Early Intervention Place' status by the embryonic national Early Intervention Foundation (EIF), and that early intervention was still very much the prime focus in Children's Centres across the County.

“Our corporate priorities for our next round of transformation – one of the themes is prevention and early intervention... because we can’t manage the demand increases that we are facing unless some of these problems are stopped earlier on. So I think it fits very much within our corporate strategies for the local authority”

Strategic Stakeholder

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“It was where we were heading strategically ... our early intervention strategy and looking at the services we provide and what we can do to promote that. And our Lead Member is interested in the work that [EIF] are doing, so there’s a political push... it fits in with a real focus on early years and a commitment not only by partners but by members as well. This sort of thing, it will inform our focus: (for example) we’re re-commissioning our Children's Centres in 2015... this will help shape our focus and our early support ”

Strategic Stakeholder

However, over time it had also emerged that the fit between My Baby's Brain and strategic objectives for the wider system extended beyond the universal, early intervention and prevention agenda:

“My Baby's Brain applies to everybody.... but can be seen to have more impact on ...or used slightly differently with... those parents that you feel have got more needs in those areas”

Strategic Stakeholder F

“We always wanted it to be universal for everybody (but) I think to start with we hadn’t really spotted the impact on neglect and the higher level services, especially safeguarding”

Strategic Stakeholder

8.3.2 Project and Systems Leadership

The personal commitment of those in positions of system-wide influence is an important driver of implementation. Day to day leadership to the project was primarily provided by a small team within Childhood Support Services at Hertfordshire County Council, and it was clear that from the outset this small team gave clear and visible leadership in shaping and managing the roll-out of the project, such that they were individually known to (and named by) many of the participants in the research. One stakeholder noted: *“great credit has been given to [the project lead] and his team for developing it which is quite right, and Childhood Support Services has a good reputation for delivering and for developing new ways of working”*.

This personal leadership coupled with a strong reputation for delivery undoubtedly gave the project a degree of internal credibility that helped it to survive over a period when, across the country, resources available for innovation have been steadily tightening.

“Childhood Support Services had support (at the senior and corporate levels of the Council) in that they were trusted to do it... (but) they were happy to trust (them) to try it out, rather than actively supporting it, if you see what I mean”

Strategic Stakeholder

Senior strategic leadership support for My Baby's Brain was also reported to be very strong and widespread across children's and adults services at the time of the research:

“About four or five years ago I became interested in the effect of neglect and early development on babies brains, so I had a personal interest in My Baby's Brain”

Strategic Stakeholder

“I have placed it on the agenda of all the multiagency strategic meetings that I am part of where I think we can get it out to a wide audience: they've all been exposed to it and share it with their staff... I've also got on the agenda for this year's Safeguarding Board's Conference... It's easy to sell as a useful tool for senior managers”

Strategic Stakeholder

However, some stakeholders indicated that the garnering of support at the most senior levels had been a process rather than an instant success, and, not unusually, had required some initial indications of success before enthusiasm really crystallised:

“I think it took a while to build really. I think it suddenly became great. It was a bit of a battle for a while and we were more recognised externally than internally....there was a lot of interest from other local authorities and organisations. But really, until practitioners and some of the managers began to see the impact it was having on families they knew locally, it was just seen as (another) part of the parenting strategy.

Q: Has there been more active support as the results have begun to emerge?

Yes, absolutely. There's now a reference to our newsletters in the briefings from the directors; it's being integrated as part of what we're doing as a council”

Strategic Stakeholder

Leadership support was perhaps less widespread and more fragile across the leadership in health. A strong champion had been instrumental in getting wide engagement by health visitors in the training, and noted for example:

“I was really glad to have been able to get information about My Baby's Brain into the Red Book, which is the patient-held record: that was an achievement in ensuring that it came to everyone's attention”

Unfortunately this strong advocate for My Baby's Brain had since moved to a new role and now had little contact with the initiative, and no other equally committed champion had yet emerged. There appeared also to be a complete absence of leadership support in midwifery, which perhaps explains why Midwifery as a service had not yet engaged with the initiative; see below (system reach and influence).

8.3.3 Costs and benefits

The low resource requirements of My Baby's Brain and the fact that its implementation was by definition a multi-agency activity also enhanced the fit of the initiative within the wider system. Senior stakeholders in health commented that the fact that the training had been provided free to all health visitors had been very important, in the current climate of resource limitations. National policy and local resource constraints were, as in most areas of the country, beginning to place a greater focus on the needs of targeted families, and in that respect, My Baby's Brain was also a good fit, given its emerging applications and promising results for higher need groups:

"I suppose for me particularly – and that might be different to my other colleagues – wouldn't be looking (so much at) the universal, I'd be looking at the parents who have some challenge around parenting because if we're really honest, that's where our funding is going to go, that's the scenario we are headed towards (nationally).

Strategic Stakeholder

Also, some stakeholders saw the flexibility of My Baby's Brain and its partnership model as potentially allowing for an even more cost-effective delivery system to emerge, over time:

"(But) it lends itself to a universal-targeted set-up. Even if you've reduced the amount of council-funded services and the more universal element, we're looking at keeping that through a partnership approach.... and even if money was tight, you could still run these programmes through school, through nurseries couldn't you?"

Strategic Stakeholder

8.3.4 System reach and influence

We were able to form a picture of the 'reach' of MBB across the wider system of early years services in the county by combining information from various sources about the extent to which different services and agencies had engaged with the initiative. This included looking at the profile of those attending the training, and qualitative data from system stakeholders. Overall, and in terms of the key sectors that the early planning for My Baby's Brain had identified as critical to reach, there was a feeling that wider system engagement had been mostly a success story. In children's services, both Children's Centres and social care (social work and safeguarding) had been key targets for engagement, and had been very successfully reached:

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Q: Who was targeted by the new initiative?

Initially, we thought very much children's centres and health visitors and that quickly grew because of the interest from social care colleagues.... Obviously then it's grown to people who care for children with the early education and childcare practitioners and people like library staff... But that's developed with time because of the amount of interest and enthusiasm that the programme's invited. The fact that social care and safeguarding and a whole range of different organisations are so interested and excited and enthused has probably been one of the major successes of the programme.

Strategic Stakeholder

Courts had also been successfully targeted:

"We've done work with the courts... (The project lead has done) presentations with judge and magistrates on My Baby's Brain. They loved it. They didn't understand the impact of neglect on children so it was quite a light bulb moment for them, because they don't often see children in court. What they see is the parent... but no emotional response to that child's circumstances and what this parent's lifestyle has done to the child's life chances"

Strategic Stakeholder

In health, as we have seen, there had been a good take up of training by the health visiting service, with around half of all those trained in Phase Two coming from this background. However, as described previously, although health staff endorsed the Five to Thrive principles every bit as firmly as children's services staff, in both the survey and qualitative elements of the research we picked up some key differences between health and other staff participating. Health staff were generally somewhat less positive about the training, and its 'added value' for their practice, as well as its practical feasibility.

Some strategic stakeholders commented along similar lines:

“Although we’ve reached a lot of health visitors, I don’t know that they are all convinced. We’ve reached people, but we may not have convinced people”

Strategic Stakeholder

In health, it was however generally agreed by all strategic stakeholders that Midwifery was the single most important service that was conspicuous in its absence, despite the fact that in the view of one person: *“The highest applicability of My Baby's Brain is with Children's Centres, health visitors and midwifery”* and in another’s view: *“It doesn’t make sense to have a programme like this that doesn’t reach all the key people who are working with all the new parents and prospective parents”*. It was indicative too that the research team failed to obtain any interviews with strategic or operational staff from Midwifery, despite considerable efforts as we were keen to understand their perspective:

“On the ground (in health) we work fairly closely with midwives. But there are barriers. They are acute services, we are community and they are quite short-staffed at the moment. But there is always this difficulty. I sit on lots of advisory boards. Midwifery is very sporadic in their joining up to what’s going on”

Strategic Stakeholder

Most stakeholders agreed that there were significant reasons for this absence, however:

“We’ve struggled across the board to engage with midwifery and I don’t think that’s unique to Hertfordshire. My feeling is that perhaps there has been (more) emphasis nationally on health visitors and a lot more funding, and the midwifery service is feeling a bit forgotten at the moment and under resourced. So it is quite hard for them to feel enthusiastic and engaged with some of these initiatives”

Strategic Stakeholder

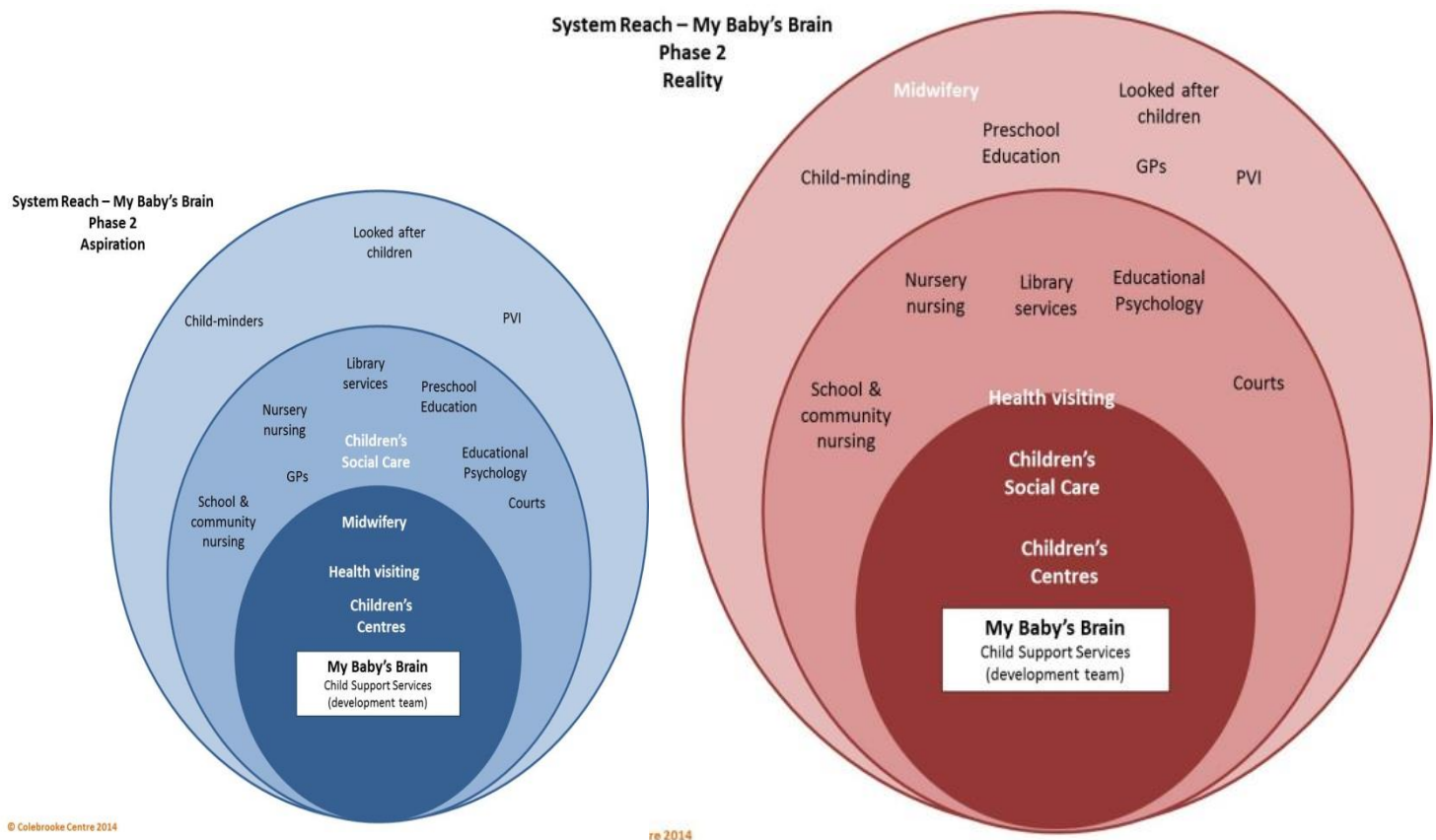
“It would be interesting to see how midwifery view it. You might find that midwifery services are stretched, hard pushed and therefore isolated from the overall partnership around early years and they need help. (Their not having engaged) may be a symptom of other things”

Strategic Stakeholder

The Figure 14 below captures the extent of the ‘reach’ to different parts of the system of children’s services, across health, social care, and early years within the County, contrasting the initial aspiration for My Baby's Brain with the reality as it was by summer 2013. It graphs the engagement of different services, represented in the figure by physical proximity to the centre of the My Baby's Brain initiative. Positions have been estimated with reference to information about the strength of strategic engagement (as provided by

research participants), and in terms of operational engagement as demonstrated by attendance at the training sessions in Phase Two and information about how the learning was being used in practice. The services shown in white font represent the key part of the system that intended to reach ('Aspirations'; blue diagram on the left) and did reach ('Reality' – pink diagram, on the right).

Figure 14 System reach of My Baby's Brain: aspirations and realities



As can be seen, key differences were in the relative positioning of the difference services. Midwifery, initially intended to be part of the 'inner circle', was effectively placed in the outmost circles by mid 2013 due to a failure to engage this service on any level. On the other hand, children's social care, which had not originally been a primary target of My Baby's Brain, had in fact engaged more strongly and quickly than anticipated, apparently due to the growing awareness of how the messages could be used in case work with vulnerable families. GP services, to take another example, had at the outset been seen as part of a group of services that should be influenced if not closely engaged, but by mid 2103 had not yet been involved to any appreciable degree.

This shifting of the programme's original intentions in respect of reach from the universal to the more targeted levels of service provision was perhaps one of the most striking aspects of the systems dimension of implementation of My Baby's Brain. In initial planning, as noted earlier in Part One 2 the aspiration was to create a simple universal approach that could be used across all universal services in contact with parents of very young infants. However, in practice, practitioners and senior stakeholders working in social care quickly created applications for the approach that took it into the core of practice in parenting support for families with children in need and in safeguarding. The simplicity of the Five to Thrive messages was readily turned into a useful framework both for individual practitioners and for teams around families; possibly in itself an indication of the continuing need for simple, practical, simple methods of working with these most vulnerable (and challenging) families. This can be counted as a success, and is very likely to assist in promoting the sustainability of the approach over the longer term given the current policy priorities to focus on the most needy families.

Q: When you were thinking about the original design, did you think you might be using it in different ways with families with higher needs?

"I think that probably came along a little later. Initially this was about a message you could get out to everybody, which will have an impact on everyone, whether at the universal end... or right at the specialist end. I think it then dawned on [the development team] that you could actually do more with it if you're looking at the specialist end"

Strategic Stakeholder

However, by the same token, the degree of systems engagement within universal services that reach all parents in the population, especially in health (.eg midwifery, GPs) was perhaps not as strong or as extensive as anticipated and may benefit from future focus.

PART FOUR

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

9. Summary and conclusions

9.1. Background

My Baby's Brain is an initiative developed since 2011 by Hertfordshire County Council's Childhood Support Services, *"conceived in order to convey in simple, accessible language, to parents of very young children, the principles of attachment and the direct impact they have on a baby's brain development"* (Hertfordshire County Council; 2013a). It is based on a model developed by Kate Cairns Associates, known as Five to Thrive, a '5-a-day' style model. It recommends that parents focus on five *'building blocks for a healthy brain'* when interacting with young babies: **Respond, Cuddle, Relax, Play** and **Talk**. These five principles are based in scientific evidence about their importance for positive child development and secure and healthy relationships, as well as their relationship with optimal brain development in the early years. Beyond emphasising these five behavioural principles of responsive parenting, neither My Baby's Brain nor Five to Thrive are prescriptive about how parents should do these things with babies. Thus, stakeholders and practitioners described the initiative as about encouraging a 'way of being' between parents and infants, rather than prescribing a specific 'way of doing'.

My Baby's Brain was originally conceived as a universal approach, suitable for all parents in the local population, regardless of need. However, over time it demonstrated that it could also successfully be used with targeted groups of families with additional needs. This distinctive openness and flexibility was shown in the study to be both a great strength of My Baby's Brain, offering almost infinite applications across county-wide services for children. However, as the report has set out, over time it may become a potential source of weakness and dilution of quality and effectiveness if some clear, practical parameters are not defined for future replications.

In its second Phase (2012-2013), My Baby's Brain was centred around a one-day structured course delivered by trainers from Kate Cairns Associates to nearly 400 staff working in early years services across the county. Training was delivered in multi-agency groups of around 30 practitioners, comprised of approximately equal proportions of staff from health professions and children's services. Trainees mainly included children's centres staff and managers; health visitors and their managers; and a smaller group of social workers. The multi-agency approach was a key feature of the design, intended to ensure that all practitioners working in early years across the county would be aware of and able to use the same messages when working with local parents. Training was paid for by the council, backed up by materials for practitioners and for parents, and informal optional 'practice-

sharing' events hosted by the council were held as follow-ups to the training. There is also a webpage hosted on the council's main website; www.hertsdirect.org/mybabysbrain. This report has described the background, methods and key findings of an independent evaluation of My Baby's Brain in Phase Two, undertaken by the Colebrooke Centre for Evidence and Implementation in collaboration with Warwick University Medical School between 2012 and 2013. The evaluation explored the outcomes of the initiative for practitioners from a range of agencies who participated in the training, and collected data from practitioners, parents, and strategic stakeholders from agencies within Hertfordshire. It also explored the implementation of the initiative at multiple levels: practitioners, services and the wider system of children's services within the county. Measurable impact on parents was not a strong focus of the research at this stage, in advance of full understanding of the implementation issues. The methods included a survey of over 200 practitioners using repeated measures of change in knowledge, attitudes and practice at three time points (pre-training, post-training and at 2-4 months follow-up); 28 qualitative depth interviews; and analysis of costs data. The research and analytic methods were underpinned by the use of theoretical frameworks drawn from intervention science and the emerging field of implementation science.

9.2 Findings - outcomes for practitioners, and use in practice

Meeting a need

My Baby's Brain proved to be a highly popular initiative with early years staff and strategic stakeholders across the county. The survey of practitioners confirmed that it was meeting an important need. Although nine in ten practitioners already understood the importance of attachment to infant development, and six in ten used that knowledge 'a little' in their work prior to training, only 13% were using that knowledge 'a lot'. A large proportion had relatively little prior training in the theory or science of baby brain development. Children's services staff had least prior exposure to this field of science (40% had no prior training in this area), but health staff also reported gaps (21% had no prior training). Staff attending training were enthusiastic about the initiative, even where they viewed mainly it as a refreshment of existing knowledge rather than as a completely new area of learning.

Outcomes from training

My Baby's Brain was also a successful and effective initiative in terms of outcomes for practitioners trained. Overall, the surveys showed that practitioners reported statistically significant positive changes in all dimensions of knowledge and attitudes, and encouraging, although less substantial, changes in practice. The changes were significant for all types of practitioners, and notably, all the changes reported were sustained at follow up, which in

some cases was at a time point three to four months after the training event. In a few specific areas there were more substantial positive changes in the children's services practitioner group than for health practitioners, but these were matters of degree only and the overall picture was positive for all those trained.

There were **statistically significant and sustained increases** in the following aspects of **knowledge and confidence**:

- ✓ Understanding the importance of attachment as a critical survival mechanism for small babies
- ✓ Knowledge of how babies' brains develop
- ✓ Understanding of the ways in which parents can affect their babies' development
- ✓ Confidence in knowledge about the theory and science of baby brain development
- ✓ Confidence in talking to parents about baby brain development

At follow-up two to four months after the training, there were also encouraging **changes in reported practice**:

- ✓ In the surveys, 90% said they had been able to use the five messages (25% with 'all' parents and 65% with 'some' of the parents they worked with)
- ✓ In the surveys, 50% said their way of working had 'changed', and 58% thought their practice had 'improved'
- ✓ There were numerous examples given in qualitative interviews of how practitioners felt the training had given them both the language and the confidence to talk with parents about this aspect of parenting and infant development.

Qualitative interviews also supplied numerous examples of how practitioners of all types were using My Baby's Brain creatively to make changes in focus and emphasis of their practice, both in universal and targeted settings, and in 'embedded' and 'structured' formats. Embedded use was defined as the use of the messages and materials of the initiative woven into routine interactions with parents in a low-key, naturalistic way; structured use implied the use of planned activities and sessions, and more explicit styles of delivery of the messages and materials.

The research very much suggested that practitioners, in creatively and flexibly extending the original universal design of My Baby's Brain, were managing to extract considerable additional value out of the approach. Data from a small number of parents and from the qualitative interviews with practitioners suggested that in a universal setting, the impact of My Baby's Brain was mainly to reassure, reinforce and amplify warm and responsive parenting that was already present. With families in targeted groups, it served to normalise and explain the value of responsive parenting, and to highlight more clearly for struggling parents where they could make positive changes. The data suggested that parents could

understand and retain the messages passed on by practitioners, and some had gained confidence and reassurance and even modified their behaviours. In universal settings these findings suggest that especially for first time or anxious parents, or those who have read or heard contradictory information about caring for babies, My Baby's Brain can be a helpful source of clarity and confidence. In addition, practitioners believed they were noticing behavioural changes arising out of having used the Five to Thrive messages with parents, with the clearest observations being reported in relation to families in targeted settings. For example, in targeted work, some stakeholders felt that the Five to Thrive messages might have useful applications in helping parents who were struggling to understand what was expected of them when there were concerns about safeguarding. Some staff were actively blending the Five to Thrive messages with other approaches as part of a toolkit of support for families with complex needs, sometimes in co-ordinated multi-disciplinary ways, and sometimes in relation to children who were well above the 0-3 age range for which My Baby's Brain was initially intended. Some social workers were using their new confidence and knowledge of the evidence on child development to improve the detail and quality of their reports to courts.

Although there is no confirmed evidence that My Baby's Brain is in any way harmful to babies or to parents, it is always possible that even seemingly benign interventions can have adverse effects. Some practitioners were concerned to ensure that the well-meant Five to Thrive messages did not get transmitted in ways that disempowered or stressed parents, and future research should certainly explore the possibility of negative effects more thoroughly than we have been able to do.

Costs of My Baby's Brain

Overall the costs of implementing Phase Two were not high. Using data provided by Hertfordshire County Council we were able to calculate the total costs of the whole initiative, to the end of the Phase Two evaluation, including standard hourly 'unit costs' of staff time in different professional groups.

Including all the costs of development and evaluation in both Phase One (the pilot Phase 2011 to 2012) and Phase Two, and including all the costs of staff time for development, and the unit costs of trainees to attend training in both Phases, the cost per practitioner trained in Phase Two was **£479.00**.

9.3 Findings - implementation

Research increasingly shows that the quality and effectiveness of the implementation of services and initiatives is a determining factor in outcomes for service users, independent of content. Even the best interventions and approaches may fail if the implementation context is inhospitable, or the implementation process is flawed. Using data provided by senior strategic stakeholders as well as by participating staff and managers, we have explored the extent of readiness for, and the goodness of fit of, the new innovation amongst staff, services and the wider existing system. This helps us to understand what kinds of challenges could lie ahead when 'scaling up' My Baby's Brain in the next stage of development and roll-out.

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All stakeholders were emphatic that My Baby's Brain was conceived as an 'approach' rather than as a formal programme or formal model of intervention. Thus, although considerable work had been done to develop the content of the approach in terms of the Five to Thrive messages and their supporting materials, the precise form in which these 'core components' should be combined, and the decisions about what to treat as fixed, and what to treat as variable, was left open. Practitioners were able to experiment and develop their own ideas. Over the course of time, one effect of this had been to extend the approach beyond its original universal remit and develop it for use with targeted groups; another example had been the development of structured sessions and courses for parents based around the five messages, in addition to incorporating the messages naturalistically, embedded in practice as usual.

The implementation of the initiative had many strengths. The My Baby's Brain ethos and broad logic was generally liked and endorsed, with strong credibility or plausibility attached to its basis in scientific evidence. There was wide agreement on the simplicity, clarity and accessibility of the Five to Thrive messages, which were recognised to have condensed a complex area of theory and evidence into a concise set of principles that practitioners and parents alike could comprehend. The flexibility meant that for confident agencies and confident practitioners, there were myriad ways to use My Baby's Brain in practice. The supporting materials that were produced to accompany the training were widely admired, although found to be in too short supply and not actively used by all practitioners.

There were however some limitations arising from this flexibility. Although the concept of 'fidelity' to an approach is complex when the 'intervention' being made is intentionally highly flexible and context-responsive, some fixed parameters are required to ensure implementation quality, and maintain ultimate effectiveness. The lack of specification about how the 'core components' or active ingredients of the approach fitted together, how they linked to expected outcomes, and the precise way(s) in which My Baby's Brain should be delivered to parents in different practice settings and with different needs left some

practitioners and managers feeling unsure how to use the approach. Although the 'Five to Thrive' messages are obviously core components, they are probably necessary elements rather than sufficient in themselves. Most of those we interviewed stressed that other aspects of implementation were likely to be key to effectiveness, beyond simply knowing and advertising or repeating the five messages to parents. In other words, the five messages were important content, but it was not always clear to practitioners *how* that content should be used. In particular, My Baby's Brain clearly requires the development of sophisticated practice skills to support effective delivery of the content: excellent communication skills; empathy and relationship-skills; the ability to weave in intentional content in practice interactions in ways that seem entirely natural; the ability to identify opportunities 'in the moment' to address key issues; and critically, the ability to model the kind of responsive interactions that My Baby's Brain is advocating to parents. These too may be 'active ingredients' of the implementation model that would benefit from further specification.

There are a number of implications that follow from not having clearly identified the essential active ingredients and core components, or not having clearly specified how they should be used in different practice contexts. First, lack of clarity about what is essential to the approach and what is open for adaptation will prevent easy replication and scale-up in different practice contexts. It can also hamper robust evaluation of effectiveness as it will be harder to specify the precise (i.e. measurable) outcomes that use of My Baby's Brain should be expected to produce. Second, as was shown in the research, practitioners who are uncertain about how to use the approach may be deterred from using it all, preferring instead to fall back on more familiar practice scripts; or they may intend to use it, but be hesitant and miss opportunities 'in the moment' as they arise. Finally, if there are no clear boundaries around what does, and what does not constitute the My Baby's Brain approach, the approach may become adapted or diluted in ways that reduce its efficacy, or could even cause harm. Attention to describing the all the active ingredients and scoping out the various alternative implementation models, albeit incorporating a strong element of continuing flexibility, should ideally be undertaken before further scale-up is attempted.

The training for My Baby's Brain was generally well received, and participants universally reported acquiring new knowledge. It was however criticised by some for lack of depth. There was a clear mandate to deepen and extend the detail of the scientific content, which may not have been equally well-delivered in some sessions. More experienced staff, in particular, look for well-delivered and properly cited scientific content and may take the training less seriously if this is lacking. The experience of training in multi-agency groups was widely appreciated, though some felt that the training could have been better tailored to accommodate those with higher levels of career experience. The trainers also varied in quality, which in turn impacted on intentions to use the training in practice, as reported immediately post-training (although this seems not to have resulted in major differences in actual use of the messages in practice, when reported in the follow-up period).

Analysis of the different dimensions that bear on implementation effectiveness – people, organisations and the system – showed that there was a positive degree of implementation ‘readiness’ at all levels (except in regards to the lack of readiness of ‘the model’, described above) and that the ‘fit’ of My Baby's Brain to practice and strategy was largely good. This certainly helped to carry the approach successfully forward.

At the organisations and systems level, key favourable factors were the low resource requirements, the fact that multi-agency working and partnerships were already familiar modes of working to staff and managers in Hertfordshire, and a generally positive approach to service innovation in general. There was strong leadership support both at the organisational and systems level, although the absence of a current health champion, coupled with more lukewarm or arms-length support by team leaders in health raises some challenges.

During Phase Two both children’s services and the health visiting service were strongly engaged by the initiative and there was active leadership support both at the organisational and systems level. In children’s services, almost everybody could see ways in which My Baby's Brain was or could be coterminous with existing operations and strategy. Children’s services staff mostly described feeling confident in having the practice skills necessary to deliver the approach, and there were many vocal champions of the initiative. Child and family social workers, who were not at the outset envisaged as key proponents of the approach, also became keen advocates, seeing many applications for My Baby's Brain in their work with more vulnerable families. This may have been less true for health staff and agencies. Although findings were mixed, there were hints that even though health visitors were actively mandated to attend the training in Phase Two, the overall on-going commitment of health might be more fragile than that of children’s services. There appeared to be more lukewarm or arms-length support by team leaders and a lack of widespread availability of strong champions. There were also some suggestions that some health visitors struggled with the necessary time and opportunity, and perhaps also the skills, to weave the My Baby's Brain approach into their other routine daily practices. This may raise challenges for retaining the engagement of health visitors in the future.

Finally, although multi-agency engagement was largely regarded as having been a success story for My Baby's Brain, it may be that in the next Phase of the project, a specific and very active strategy to reach other parts of the system will be required. System mapping showed that some parts of the wider system failed to engage in Phase Two. Midwifery in particular proved impossible to engage. Other services that might in future be important (GPs, early education, nursery and child minding services) had also not yet been reached by the end of the evaluation. Phase Three will benefit from exploration of how better to influence the unreached parts of the wider system of early years services in Hertfordshire.

10. Recommendations

Several specific recommendations arise from the research:

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9. There is strong support from this research for continuing to develop and refine what has clearly shown itself to be a successful and low cost approach for improving practitioner knowledge, confidence and practice in working with parents of very young children.
10. The multi-agency framework should be retained and extended, preferably with energetic attempts to draw in champions from health who can help to craft the approach to achieve the best possible fit with health professionals' existing practice skills and health services' ways of working. There appears to be a less optimal 'fit' for health, and the concern is that if mandatory and free attendance at the training for health staff is withdrawn, health as a sector may will gradually disengage.
11. Although further efforts to engage midwifery and GPs should be made, the development team may need to secure influential champions first and foremost.
12. The great flexibility of the approach that has so far developed is a valuable strength, allowing the use of My Baby's Brain in multiple settings and circumstances. This strength needs to be retained, and in principle there is no reason why a tiered model of implementation could not be specified, moving progressively from universal application through to use with higher need and targeted groups of parents. Before scaling up in Phase Three, we recommend that further work is undertaken to clarify and specify more clearly what are the 'active ingredients' (or 'core components') of the approach and how these ingredients can be combined together within different implementation or delivery models. For example, beyond understanding and communicating the five messages, what specific skills are required in order for practitioners to deliver them successfully? How should the five messages be combined, and how should this vary across different professional settings? When is embedded, as opposed to structured use most appropriate? Differences in the implementation model for preventive universal settings as opposed to the model that is emerging when working with higher-need, targeted groups of parents should also be specified further, paying attention to the fit and complementarity of My Baby's Brain with other approaches that are in use within the county.
13. This process of specification will be aided by the development of a logic model that captures the 'theory of change' for My Baby's Brain. This should be co-constructed by staff from the different sectors and job roles who are involved in its delivery. The products will undoubtedly introduce new elements into the existing model, and will

enable the approach(es) that is/are 'My Baby's Brain' to be quality assured and robustly evaluated for impact in the future. Some of the following questions may be useful to consider as part of this process:

- For My Baby's Brain to be fully effective, it is essential that all five messages are delivered to parents, as an integrated 'five a day' package, or can practitioners focus on single messages (as many were clearly doing)?
- Is it possible to deliver the messages incorrectly?
- Under what circumstances might it be more effective to use the approach as embedded, as opposed to delivering them in a more purposeful, structured way?
- How is My Baby's Brain delivered universally different from My Baby's Brain delivered to targeted groups?
- Are there circumstances under which My Baby's Brain should not be used?
- Is it appropriate to use My Baby's Brain with children above the age of three?
- Are the supporting booklets for parents necessary, or optional?
- Do the supporting displays of materials make any difference to impact?
- Could one test the quality of delivery and quality assure or accredit the approach?
- Do all practitioners in all agencies at all levels need to be trained, or would it work equally well to have selected champions who cascade the learning to colleagues?

14. The training will also benefit from a review, and consideration to the possibility of training beyond 'basic' to more 'advanced' levels may be timely. It will be useful to specify what specific skills and qualities are required of My Baby's Brain trainers. Access to resources (for example, further reading) should be maintained and continuously updated, and the My Baby's Brain website, which was not well-known to or well-used by practitioners at the time of the research, should be the main hub for this activity.

15. Although some practice-sharing events were held during Phase Two, there were many calls for more structured opportunities for the sharing of practice experience in using My Baby's Brain, post-training. Participants suggested these could be done in single agency or even single-team settings as well as in multi-disciplinary contexts, in order to maximise the development of shared and mutually supportive ways of implementing My Baby's Brain at both basic and advanced levels, and reflecting the different settings in which practitioners are working.

16. Overall, multi-agency engagement was largely regarded as having been a success story for My Baby's Brain. However, it may be that in the next Phase of the project, a specific and very active strategy to reach other parts of the system will be required. Whilst universal and even targeted children's services had taken the approach thoroughly to their hearts, health possibly have not, and could easily find that other competing priorities in the coming months and years push their commitment to My Baby's Brain into the background. This will probably require a deeper analysis of the fit of the approach to the practice as usual of health staff (both community and acute services), especially those who feel very time-pressed. It will also require closer attention to the specificity of the implementation model and how it can be used in all the different contexts of early years and family work to add value to existing practice across the county.

Appendix

2013 Unit costs for staff in different job roles, used for calculation of the per capita training costs (section 3.3)

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Trainee time costs (various agencies, @ one day's time average cost)

Health visiting - Managers	£114.00 per day
Health visiting - Other staff	£137.00 per day
Children's Centres (inc Intensive Family Support) - Managers	£145.00 per day
Children's Centres (inc IFS)- Other staff	£74.00 per day
Social Work - Managers	£162.00 per day
Social Work - Other staff	£99.00 per day
Library Service	£60.00 per day
Educational Psychology	£140.00 per day
Other agencies	£116.00 per day (avg)

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