Research Report DCSF-RR166

Nurse-Family Partnership Programme

Second Year Pilot Sites Implementation in England

The Infancy Period

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Institute for the Study of Children, Families and Social Issues
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Key messages

- The FNP Programme can be delivered well in infancy, in terms of the nature of the visits and the extent to which clients are retained in the programme.
- Clients value the programme and their Family Nurse (FN) highly and report that receiving FNP is making a difference.
- The strength of the client-Family Nurse relationship is noted by clients and FNs as the key to successful delivery, making an impact, and retaining clients in the programme.
- Progress in delivery has been good overall with much useful learning but some priority areas to be addressed by FNP teams, their organisations and the central team.
- Delivery with fidelity is associated with a close knit team, no staff turnover, and strong support for FNP from the PCT and local authority.
- Current 'impacts' based either on the total Wave 1 population or on local groups should be treated with caution. Results may be specific to Wave 1 and there are no comparable data for most of the reported outcomes.
- Data incompleteness remains a problem, limiting the likelihood of reliable impact data, and teams may need extra support to integrate the information based on forms into ongoing supervision.
- Sustainability needs addressing at organisational level through commissioners.
- Site variation suggests local factors such as: team cohesiveness and stability, relationships between the supervisor and FNs, and the capacity of individuals assigned to integrate FNP into local services to give clear messages to commissioners.
- Commissioners focus on the cost of the programme. They need to be clear about what FNP is, who it is intended for, what the impacts might be, and the relevance of the existing evidence base from the USA.
- The cost of delivery appears to be approximately comparable to the USA but a substantial proportion of staff time is taken up with non-FNP activities, including professional development and mandatory NHS training.
- Staff turnover has been high in some sites, one factor impeding successful delivery, and this may be related to a lack of clarity about where FNP sits in relation to other professional opportunities for nurses.

Executive Summary

Focus of year two evaluation

- How can consistency of delivery and attaining fidelity to the programme model be achieved in the infancy phase (birth to 12 months)?
- Are those clients that drop out different from those that remain involved in the programme?
- What factors (the family, the nurse, the site) are associated with retention/attrition of clients? How can retention be maximised?
- How acceptable is FNP during infancy to families and to practitioners?
- What is the extent of father involvement during infancy in FNP and how can this be maximised?
- What are the views of children's services commissioners about FNP and what place does it have in local service plans?
- What is the cost of delivering FNP and does this vary between sites?

Methods used for the evaluation

- Interrogation of the database that includes all forms completed by FNP.
- Structured face to face home interviews 154 clients with 6 or 12 month old infants.
- Structured telephone questionnaires with 98 clients with infants.
- Interviews with 42 mothers who terminated FNP involvement.
- Detailed case studies of 9 exemplars of client progress.
- Structured questionnaires with 44 FNs and 10 supervisors.
- Interviews with 4 staff who have left the programme.
- Staff diaries over a two week period in November 2008 with 38 FNs and 10 supervisors.
- Interviews with 35 local commissioners of services for young children and Children's Centre managers.
- Interviews with 10 local FNP Project Leads.
- Analysis of local Children's Service Plans and other pertinent documents relating to services for young children and their families.

Delivery of the FNP programme

- The majority (87%) of clients received at least half the expected number of visits in pregnancy, with 30% receiving 80% or more, the stretch objective to aim for once sites are well established.

- Almost two thirds (63%) of clients remaining with FNP until the start of infancy received at least half the expected number of visits; 36% receiving 65% or more, the stretch objective for infancy.

- There are substantial differences in delivery between sites.

- FNs suggest the proportion of visits could be increased by having a slower recruitment period and having more familiarity with the materials. They also note that NHS requirements required by local managers such as keeping duplicate records and engaging in other non-FNP activities reduces their capacity to deliver FNP effectively.

- The content of visits was overall close to the US recommendations, though there was site variability that merits further investigation. Some teams focussed on maternal and environmental health at the expense of spending more time on parenting and the maternal role.

Retention of clients

- Retention of clients is close to the stretch objectives particularly for infancy at 14% in pregnancy (objective 10%) and 21% for infancy (objective 20%).

- There is some site variability, with some retaining more clients in pregnancy, others retaining more in infancy.

- Most client demographic characteristics are not related to attrition. The exceptions are that minority background black clients have a lower level of attrition than other ethnic groups in pregnancy; and clients living in households with their partner and unrelated adults were the most likely to leave in infancy, those with their partner and mother the least.

- The most common reasons for leaving, apart from practical reasons such as moving out of the area, are clients indicating that their needs have been satisfied so they can cope without the programme, and clients missing many appointments.

- Clients who had left were positive about the FNs but a number commented on being unhappy about the frequency of the visits, especially if they were in education or employment.

- FNs generally accepted that attrition would happen but felt frustrated by thoughts that they could have made more of a difference with clients.

- To avoid the likelihood that a client would leave they turned to the team for guidance, worked on the relationship with the client, and looked in more depth at the client's immediate concerns, utilising motivational interviewing techniques. They also offered a 'holiday' from the programme.

- These techniques are similar to those that have been found in recent US research to reduce attrition levels.

Acceptability of FNP in infancy

- The programme is acceptable to clients, their partners and to the Family Nurses and supervisors.
- Clients were overwhelmingly positive about their FN, rating them on average 9 out of a possible 10. They also endorsed all items in a questionnaire about the nurse-client relationship.
- Clients were generally positive about the FNP materials, recalling many of those used in infancy, including some used only occasionally.
- FNs were also enthusiastic about the infancy materials and particularly those that were designed to promote mother-infant play.
- FNs noted a high level of client involvement in visits and good understanding of the materials.
- Those clients who subsequently left FNP were rated on average as having lower involvement, less understanding of and more conflict with the materials during home visits. Observed lower involvement could be used as a warning sign that measures might be needed to retain the client.
- Fathers were present for almost a quarter (22%) of all pregnancy visits and a similar percentage (24%) of all infancy visits.
- The father was present for at least one pregnancy visit for half (51%) of clients, and present for at least one infancy visit for 43% of clients.

Delivering FNP in infancy

- To enhance delivery, a supportive team was said by FNs to be the most important factor in conjunction with strong supervision.
- The main barrier to effective delivery was lack of time to learn about the materials and discuss them with colleagues.
- FNs indicated that they had to spend time on non FNP administration and meetings with other professionals.
- Newness of the teams in delivering the programme is still an issue.
- FNs considered that clients were more enthusiastic about the programme once they had their babies.
- Substantial client progress was noted by FNs and the programme allowed them to express their achievements as mothers.
- Supervision was valued and allowed FNs to reflect on issues but they would like more time to prepare for supervision sessions.
- Some aspects of delivery were variable between sites, in particular completion of forms documenting any change in clients' demographic characteristics, health habits and relationships.

- Absence of these forms could impair the capacity of teams to monitor the progress of their clients in ways that could be useful for creating a local evidence base.

- Overall FNs and supervisors were satisfied with their work, although FNs were less satisfied than supervisors about career opportunities.

- Some stress was noted about being under scrutiny as part of a national pilot.

Support for sustainability

- Support was variable between the sites and FNP tended not to be embedded in strategic plans

- Some commissioners were not convinced about the FNP approach, mentioning its origins in the USA. They indicated that local issues and needs drove their decision making.

- Most infrastructure difficulties noted in Year 1 have been resolved but several teams have move premises more than once, which may reflect the challenge of positioning FNP in relation to other local services.

- Some of the commissioners' comments reflected a lack of understanding about FNP, such as suggestions for modifying the programme and for sharing the materials with other professionals so that a 'pared down' version could be used more widely.

- Commissioners were concerned about the cost of delivering FNP, particularly since the benefits may be long-terms, and may not be health related (e.g. fewer of the children become delinquent as teenagers).

- There was some concern that existing services such as specialist midwives might suffer through the introduction of FNP to the area.

- Integration of FNP with children's centre services was variable.

Costs and workforce

- The estimated cost of delivering FNP is around £3,000 per client a year, comparable to the cost of the programme in the USA.

- Most of the existing USA information on benefits relative to costs is based on longer term child outcomes such as avoiding academic under achievement and delinquency.

- FNs spend on average 60 per cent of their time on visits prescribed by the programme or other related activity such as preparation for visits, travel and notes. For FNs 35% of their time was taken with client direct contact.

- This varied between the sites from 57% to 23% but there are some discrepancies between sites in the way that non-working days were recorded.

- In the two week period there were, across all 10 sites, 538 successful client visits and 143 unsuccessful ones (21%), where the client cancelled or was not present.

- Some comments made in dairies indicate it has been difficult to arrange visits for mothers in paid work.

- The use of time in 2008 was close to that found in 2007 with no change in the amount of time spent in non-FNP activities, reflecting ongoing pressure to maintain NHS related training requirements and anxiety that working in FNP will not be a long-term career path.

- Comparisons between the two years were hampered by incomplete information about the total hours worked by each staff member.

Potential impacts of FNP

- Clients and FNs indicated that they believed good progress had been made in parenting and in other life skills.

- Case studies illustrate substantial gains in mothers developing relationships with infants and improving difficult relationships with fathers, often in the face of initial low engagement or risk factors such as having been in care. These generally involved much multi-agency working and were facilitated by the strong Family Nurse-client relationship.

- Almost three quarters of all enrolled clients (943/1304; 72%) had been referred to other services by their Family Nurse, most often for financial assistance (39%), maternal health (35%), housing (27%) or infant health (23%).

- There was a relative reduction in smoking of 20% from early in pregnancy (40%) to 36 weeks gestation (32%); however this average masks substantial differences between sites.

- Site variation is affected both by the proportion of clients who report smoking at intake (very low in some areas) and by whether all the necessary health habits forms were completed at both time points during pregnancy.

- Breast feeding initiation was 63%, with more than a third (36%) of these clients still breastfeeding at 6 weeks, which is promising in relation to the rates identified in national surveys for socio-economically disadvantaged mothers.

- There was a wide range in breastfeeding initiation rates between sites, from 38% to 86%.

- The 1003 (singleton) infants were born on average at 39 weeks gestation, with 7.4% premature; their average birth weight was 3221 grams, with 9.2% LBW.

- Just under one quarter (23%) of clients reported experiencing some physical or emotional abuse since their infant's birth, which might reduce the likelihood of FNP having an impact.

- Just under one third (30%) of clients with infants who were interviewed, representative of the total group demographically, had been to a children's centre in the previous three months, mainly for play sessions or infant massage.

Conclusions

- These first 10 sites continue to make good progress in establishing how to provide the FNP programme in an English context.
- Despite being new to each stage of the programme, delivery in England has come close to stretch objectives, but there is substantial site variability.
- A small number of sites, with cohesive teams and strong local support, are performing at a high level, and a small number are performing less well. These sites are typified by high staff turnover and ambivalent support from the wider service community.
- Clients and staff alike continue to report a great deal of positive regard for the programme.
- Some FNs are offering the programme in a more flexible manner, especially in terms of the frequency of visits, in order to keep clients involved when their lives become busy, such as when they embark on education or employment.
- There is some way to go in terms of helping local commissioners and managers of children's services to understand the FNP more accurately, and where it fits in the range of services that are part of the Child Health Promotion Programme.
- Strong central leadership will continue to be necessary to facilitate the roll out of FNP to other areas, in conjunction with local advocacy.

Chapter 1 - Introduction

This report examines the second year of the implementation of a pilot Nurse Family Partnership (NFP) programme in ten sites in England. The programme is an evidence-based nurse home visiting programme developed in the USA (where it is called the Nurse Family Partnership) and designed to improve the health, well-being and self-sufficiency of young first-time parents and their children (Olds, 2006). The programme is offered to first-time young mothers early in pregnancy (ideally before 17 weeks gestation) and continues until their child is 24 months old. There are three main aims, to improve maternal and child pregnancy outcomes, to improve child health and developmental outcomes, and to improve parent's economic self-sufficiency.

There is a detailed curriculum for delivering the programme with many reading materials and activities and there is a recommended schedule of visits, but it is expected that the Family Nurses delivering the programme will use the materials flexibly, in relation to particular client needs. A full time Family Nurse has a maximum of 25 clients and they generally work in teams of four with a supervisor and administrator. Supervision is frequent and includes both individual work and group sessions. In the USA it has been tested in three RCTs with benefits found for mothers and their children and in particular more benefits for the most vulnerable. Specifically, the trials identified better maternal prenatal health, fewer child injuries, longer intervals between subsequent births, more father involvement, more maternal employment, less reliance on welfare support, better child school readiness and, when the children were teenagers, less substance use initiation and behaviour problems.

A. Brief summary of year one findings

The programme was introduced to the UK in April 2007 in 10 pilot sites throughout England. The first year of the UK implementation evaluation (Barnes et al., 2008) documented, analysed and interpreted the feasibility of implementing the programme in the sites using a range of qualitative and quantitative methods including: interviews with all the Family Nurses working in the sites; with local staff and stakeholders; and with clients and their families. Exploratory techniques, including observation, reflection, web-based information, and diary-keeping contributed to a multi-level understanding of the experience of the programme. All of the quantitative data collected as an established part of the intervention were analysed by the evaluation team.

The result of this intensive enquiry in the first year concluded that:

- The programme, called the Family Nurse Partnership (FNP) in England, could be delivered effectively, but some sites were still some way from the 'stretch objectives' that the US model links with optimal programme delivery. While the content and length of visits were close to the recommendations, it had proved challenging to provide the optimal number of visits during pregnancy.

- The evaluation highlighted some reasons why this might be occurring. Major factors were the newness of the staff to working in this particular way, the organisational delays in some areas in establishing the infrastructure necessary for smooth team working and pressure to recruit their full caseload in a short space of time.

- The FNP was reaching those who were likely to benefit from it with eligibility of women of 19 and under. It was recommended that further testing should focus on whether it should be offered to 20-22 year olds. Recommendations were made about refining and improving recruitment procedures.

- The programme was acceptable to young first-time mothers but in some sites attrition during pregnancy was high. The programme was acceptable to fathers and many took up the offer of being involved in the home visits and in studying the accompanying materials. Further work was needed to understand why clients refused or left the programme and factors associated with attrition such as dosage and client demographic characteristics.

- Practitioners working in the programme valued the learning, recognised the potential benefits of the programme to clients, and considered it differed substantially from their previous roles as health visitors or midwives.

- FNs recognised the benefits of using a structured programme, developing a different kind of relationship with clients, using new skills and reaching real need. Various barriers to effective working were identified.

- The work was demanding on practitioners and establishing the unique form of supervision had been a challenge for sites.

- Organisational infrastructure and support had an impact on successful delivery of the programme, and there were issues around the integration of FNP with wider services for children and families.

- The first year looked at a range of short-term programme objectives, including smoking reduction during pregnancy, breastfeeding rates, engagement with fathers and various other client behaviours.

The evaluation identified factors that supported or hindered high quality programme delivery but which would require further examination, which will be addressed in this report. Outstanding issues include:

- Should the FNP be protected as a discrete programme or integrated within the multi-agency children's service?

- What are the appropriate caseload size, workload and fidelity requirements within the English context?

- How much time are FNs spending on non-programme activities?

- Guidance needed for FNs on dealing with ongoing scrutiny of their work through routine data collection and supervision?

- What the therapeutic relationship of FNP means to professional practice?

- What is the role of central support in the future development of the programme?

It was recommended that an RCT be conducted to determine the impact of the FNP on clients, their children and families. This has now been commissioned and is underway.

B. Questions addressed in year two

In the second year of operation for the 10 Wave 1 pilot sites the research described in this report was designed principally to test the applicability of the NFP model when offered during infancy (much of the first year related only to pregnancy), modified for UK procedures and requirements and informed by UK best practice. In addition some of the information about pregnancy from the Year 1 report (such as 'dosage', the content of visits, changes during

pregnancy in smoking and outcomes for infants) are updated now that almost all the clients in those sites have given birth, apart from some new clients taken on to 'top-up' caseloads. The place of FNP within the range of services available through Children's Centres and as set out in local Children's Service Plans is a particular focus as well as Commissioners' understanding and perceptions of FNP.

The work has addressed the following questions:

- How can consistency of delivery and attaining fidelity to the programme model be achieved?
- Do families receiving FNP in infancy differ in any substantial way from the population reached during pregnancy? That is, are those that drop out different from those that remain involved in the programme?
- What factors (the family, the nurse, the site) are associated with retention/attrition of clients? How can retention be maximised?
- How acceptable is FNP during infancy to families and to practitioners?
- What is the extent of father involvement during infancy in FNP and how can this be maximised?
- What are the views of children's services commissioners about FNP and what place does it have in local service plans?
- What is the cost of delivering FNP and does this vary between sites?

C. Methodology

The main methods that have been used in Year 2 are:

1. Interrogation of the database that includes all forms completed by FNP nurses to illuminate issues of fidelity of delivery, referrals to additional services and attrition.

2. Structured face to face home interviews with an 8-10% sample of the families in receipt of FNP, half of whom had an infant of approximately 6 months (N=87) and half an infant of 12 months (N=67) to examine methods of assessing potential impacts for infant and family and what they thought about the programme during the infancy phase. The 154 randomly selected interviewees were compared to the larger group of clients with children of at least 6 months old during the time period that the interviews were conducted and who were not interviewed over the telephone or at home (N= 683) to ensure representativeness. Comparisons were made of maternal age, gestation at intake, marital status, household structure, number of household members, maternal educational status, maternal employment status, maternal smoking at intake and ethnic group and there was only one significant difference between the groups. Clients reporting smoking at intake were underrepresented in the interviewed group (smoker: interviewed at home 31%, not interviewed 41%, total group 39%, $p<0.05$).

3. Brief, structured telephone questionnaires administered to a further 10% of the FNP clients with infants of various ages (N=98) to determine satisfaction with FNP, service use beyond FNP with a particular focus on Children's Centres, and the involvement of partners in FNP. To see if the randomly selected interviewees was representative of the larger group they were compared to all enrolled clients with infants who were not interviewed by telephone or at home (N=1015) in terms of their age, gestation at intake,

4. Interviews with as many as possible of the mothers who terminated FNP involvement during the post-natal/infancy phase to identify their reasons for termination (N=42). It was not possible to contact all those who left for an interview and many had changed their contact details when contact was attempted. To see if those interviewed were representative of all leavers they were compared to the leavers who were not interviewed (N=352) in terms of their age, gestation at intake, marital status, household structure, educational status, employment status, smoking at intake and ethnic group and there were no statistical differences between those interviewed and the remainder of the leavers.

5. Detailed case studies of 9 clients, selected after discussion with the sites, as exemplars of those making good progress.

6. Structured questionnaires with all the nursing staff involved in offering the service (44 family nurses and 10 supervisors) who had been in post for at least 12 months on 2 occasions to examine the acceptability of FNP during infancy, barriers to and facilitators of attaining fidelity and perceptions of supervision and training requirements. On the first administration of the questionnaire 100% were returned. On the second administration only 40 FN questionnaires were distributed since 4 FNs were no longer in that role. Of the 40, 36 (90%) were returned.

7. Interviews with staff who have left the programme during the second year of the programme (N=4).

8. Staff diaries over a two week period in November 2008 to determine the costs of the service and set this in the context of the cost of related services. They were completed by 38 of 44 FNs and all 10 supervisors.

9. Interviews with local commissioners of services for young children and Children's Centre managers (N=35).

10. Interviews with all local FNP Project Leads (N=10).

11. Analysis of local Children's Service Plans and other pertinent documents to determine whether FNP is integrated in to future planning.

A summary of the number of interviews conducted by site is in Appendix A.

Chapter 2 - Delivering FNP with Fidelity

The Nurse Family Partnership (NFP) National Service Office in the USA has outlined objectives to help sites track the extent to which they are delivering the programme with fidelity, based on data from the three USA research trials and early dissemination experiences (see Appendix B). The objectives are designed to help supervisors and their teams improve programme quality and are considered long-term goals to strive for over time, hence they are generally referred to as 'stretch objectives'.

The performance of the 10 wave 1 sites in England is at the starting point of a long-term trajectory given that none of the sites have yet to see one client through to the point where their child is 24 months old. For each phase (pregnancy, infancy, toddlerhood) the FNs will have been new to the materials when they used them with the first clients recruited to their caseloads.

The figures provided in this report concentrate on those findings that are the most reliable. Thus delivery during pregnancy focuses on those clients (the majority, N=1255) who had completed pregnancy in that they had given birth. Programme delivery in infancy similarly focuses on those clients whose infants had reached 12 months (N=712) and thus completed the infancy phase. The third phase of the programme, from 13 to 24 months, is referred to as 'Toddlerhood' and is discussed only briefly.

A. Amount of support delivered

It is commonplace for a proportion of clients recruited into evaluation studies not to receive the intended support at all (e.g. Barnes et al., 2006). They agree to receive the programme and then either decide immediately that they do not want it or are subsequently not contactable. For example, in the Elmira and Memphis trials of the NFP programme, while the average number of visits conducted in pregnancy were 9 and 7 respectively (out of a recommended 14) in each of the sites some clients had no visits (Olds, 2006). Similarly the range of visits conducted in these two trials from the time of birth up to the child's second birthday had a minimum of zero in each site. In an evaluative trial this range is taken into account statistically whereas when the service is being offered as a service, not as part of a trial, it is relevant for service planning and staffing requirements to know the extent to which families receive some, or all, of the programme.

Pregnancy

All clients described in the tables and figures pertaining to pregnancy visits had given birth so had completed their pregnancy. Based on the expectation that the majority (at least 60% is recommended) of clients are ideally enrolled by 16 weeks gestation the programme materials itemise 14 pregnancy visits - designed to be weekly for the first 4 weeks and then fortnightly until the baby's birth. The stretch objective set out by NFP US National Service Office for the amount of the programme that ideally should be delivered during pregnancy is that 80% or more of expected visits should be made (see Appendix B).

The proportion of the expected number of visits completed in pregnancy is calculated in two different ways. The *first* method simply divides the number of visits completed during pregnancy by the number of visits outlined in the programme materials (14). On this basis, to reach the stretch objective it is necessary to have11 or more visits during pregnancy. The *second* method of calculating the proportion of expected visits that were delivered takes into account the client's gestational age at enrolment and also whether or not the client has left the programme during pregnancy. Thus someone enrolled at 25 weeks would not be expected to receive the full complement of 14 visits, and one who left while she was

pregnant would have the expected number of visits frozen at that time-point. It is important to examine the proportion of expected visits taking into account gestation since sites may vary in the extent to which they can recruit clients prior to 16 weeks. In the first year of the evaluation it was found that the links between midwifery and the FNP team differed so that some sites routinely received clients further on in their pregnancy, particularly sites 4, 8, 9 and 10. It is also important in implementation evaluation (as opposed to a randomised controlled trial) to understand the experience of real-life clients, some of whom may not remain in the programme. In a trial anyone included at the outset is perceived to be a participant for as long as the study or intervention progresses - in the case of FNP until the child is 24 months old. In the 'real world' once a client ceases to be involved, to maintain a full case-load the FN will recruit a new client, so the number enrolled changes over time. Those who have left are no longer considered the responsibility of the FN, thus to indicate that she has not delivered visits to these ex-clients would misrepresent the quality of programme delivery.

The analyses of the percentage of expected pregnancy visits received are conducted first for all clients enrolled who had completed their pregnancy (to give a reliable estimate of delivery throughout pregnancy; N=1255, Table 2.1) and then for those who remained with FNP throughout their pregnancy (N=1085, Table 2.2) to give an optimal picture based on presumably the more enthusiastic clients.

Using the first method of calculating the percentage of visits received, based on the proportion of 14 visits, the distribution indicates that 20% of all clients received at least 11 visits which is equivalent to the objective of 80% (Table 2.1, column 3) while a large proportion (503/1255, 40%) were close to that level of delivery with 50% to 79% of expected visits, which would translate to 7-10 visits. Using the second of estimating the percentage of expected visits received, taking into account gestation at intake and whether the client left part-way through pregnancy, the proportion of clients receiving 80% or more of their expected visits is greater at 30% (373/1255; Table 2.1, column 7) with a further 592 (47%) receiving between 50% and 79% of their expected visits. Fewer than a quarter of clients (290/1255, 23%) had less than 50% of their expected visits while a small minority (48, 4%) were visited more frequently than their expected number, suggesting additional vulnerabilities that were being addressed. The distribution of expected visits based on the second method of calculation is presented visually in Figure 2.1.

When only those clients who remained with FNP throughout their pregnancy are included, a slightly greater proportion achieved 11 or more visits (253/1085, 23%; see Table 2.2, column 3). Similarly, a greater proportion were supported at the level of 80% or more of expected visits (32%, see Table 2.2, column 7) and a smaller proportion received less that 50% of the expected visits (189/1085, 17%). From Figure 2.2 it can be seen that the most common proportion of expected visits received for this group (N=221, 20%) was just under the stretch objective of 80%, with 70-79% of visits.

Table 2.1 - Distribution of the percentage visits received for all enrolled clients who completed their pregnancy (N=1255), first the percentage of 14 visits and then the percentage of expected visits taking into account gestation at intake and leaving the programme

% of 14 visits	N	%	Sum %	% of expected visits	N	%	Sum %
<10 %	77	6.1	6.1	<10 %	13	1.0	1.0
10-19%	66	5.3	11.4	10-19%	42	3.3	4.4
20-29%	155	12.4	23.7	20-29%	80	6.4	10.8
30-39%	85	6.8	30.5	30-39%	86	6.9	17.6
40-49%	115	9.2	39.7	40-49%	69	5.5	23.1
50-59%	239	19.0	58.7	50-59%	142	11.3	34.4
60-69%	152	12.1	70.8	60-69%	220	17.5	52.0
70-79%	112	8.9	79.8	70-79%	230	18.3	70.3
80-89%	179	14.3	94.0	80-89%	184	14.7	84.9
90-100%	30	2.4	96.4	90-100%	141	11.2	96.2
101-120%	33	2.6	99.0	101-120%	24	1.9	98.1
121+%	12	1.0	100.0	121+%	24	1.9	100.0
Total	**1255**			**Total**	**1255**		
80+% (11+)	**254**	**20.2**		**80+%**	**373**	**29.7**	

Table 2.2 - Distribution of the percentage visits received for all clients who remained with FNP for their pregnancy (N=1085), first the percentage of 14 visits and then the percentage of expected visits taking into account gestation at intake and leaving the programme

% of 14 visits	N	%	Sum %	% of expected visits	N	%	Sum %
<10 %	20	1.8	1.8	<10%	9	0.8	0.8
10-19%	36	3.3	5.2	10-19%	20	1.8	2.6
20-29%	102	9.4	14.6	20-29%	39	3.6	6.2
30-39%	76	7.0	21.6	30-39%	63	5.8	12.0
40-49%	109	10.0	31.6	40-49%	58	5.4	17.4
50-59%	229	21.1	52.7	50-59%	123	11.3	28.7
60-69%	150	13.8	66.5	60-69%	203	18.7	47.4
70-79%	110	10.1	76.7	70-79%	221	20.4	67.8
80-89%	179	16.5	93.2	80-89%	180	16.6	84.4
90-100%	30	2.8	95.9	90-100%	125	11.5	95.9
101-120%	33	3.0	99.0	101-120%	24	2.2	98.1
121+%	11	1.0	100.0	121+%	20	1.8	100
Total	**1085**			**Total**	**1085**		
80+% (11+)	**253**	**23.3**		**80+%**	**349**	**32.2**	

Figure 2.1 - Distribution of the percentage of expected pregnancy visits received for all clients who had completed pregnancy (N=1255), taking into account gestation at intake and attrition

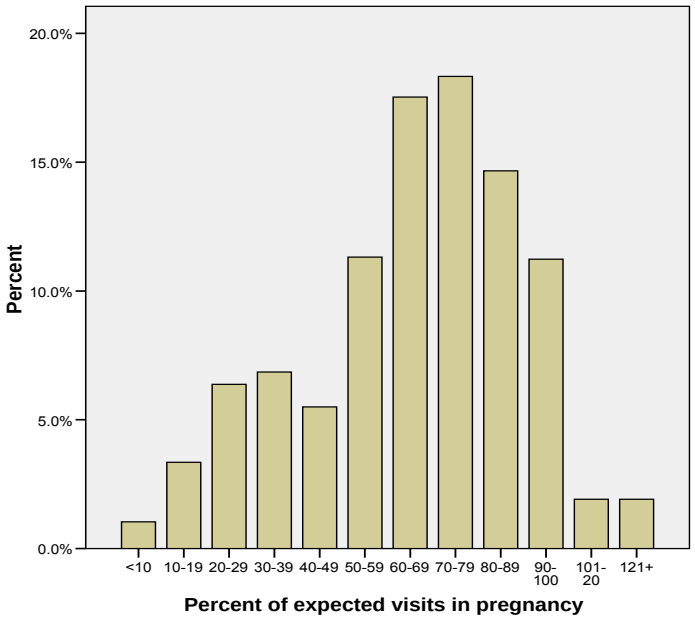
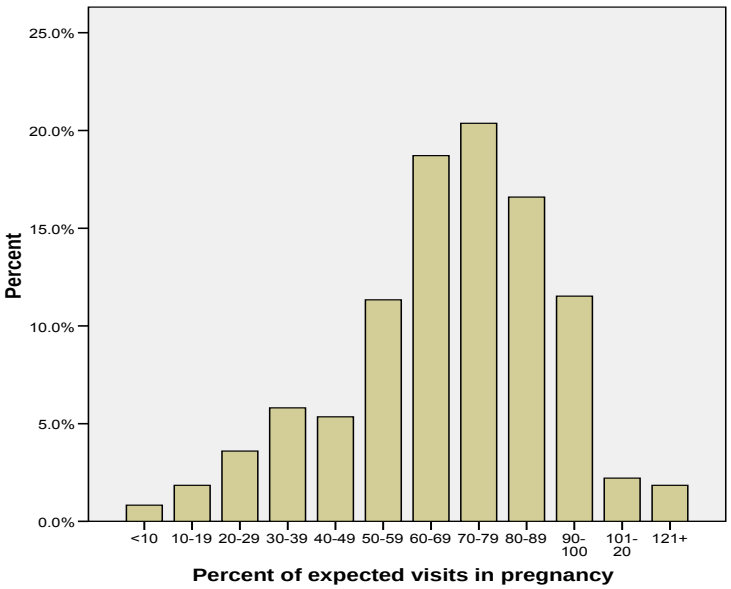


Figure 2.2 - Distribution of the percentage of expected pregnancy visits received, for clients who stayed with FNP for all their pregnancy (N=1085), taking into account gestation at intake



Site comparisons, pregnancy

The average number of visits completed in pregnancy, in total and by site, is given in Table 2.3. Clients received on average about half of the14 visits that are described in the pregnancy materials (mean = 7.4). Site means differ significantly, ranging from 6.1 (site 10) to 9.0 (site 3). The average percentage of the 14 visits completed was 53%, ranging from 44% (sites 8 and 10) to 64% (site 3). There were also significant differences between the sites in the proportion of clients achieving at least 80% of the 14 pregnancy visits, ranging from only 4% in site 9, with three other sites at or below 10%, to almost half (46%) in site 3.

Table 2.3 - Including all enrolled clients who had completed their pregnancy (N=1255), the mean number of visits in pregnancy and the percentage of 14 visits completed, by site

Site	N	Mean visits	Range	Mean % of 14 visits achieved	Range of % achieved	% with 80% or more
1	109	8.1	1-19	58	7 – 136	30
2	110	8.2	1-17	59	7 – 141	28
3	188	9.0	1-16	64	7 – 114	46
4	152	6.5	0-15	46	0 – 107	9
5	115	8.2	1-18	59	7 – 129	23
6	98	7.2	1-14	51	7 – 100	14
7	107	7.5	1-20	53	7 – 143	21
8	131	6.2	0-24	44	0 – 171	8
9	129	6.5	0-12	46	0 – 86	4
10	116	6.1	1-14	44	7 – 100	10
Total	**1255**	**7.4**	**0-24**	**53**	**0 – 171**	**20**

Table 2.4 provides information using the second method to calculate the percentage of expected visits in pregnancy, taking into account each client's gestation at enrolment and whether or not they had subsequently left the programme during their pregnancy. Calculating the percentage of expected visits on this basis, the mean number of expected visits overall is less than 14 at 11.2, ranging between sites from 9.8 (site 9) to 12.7 (site 1). The average percentage of expected visits achieved in Table 2.4 is, not surprisingly, higher than that in Table 2.3 given that most were not expected to receive all 14 visits. The mean of 66% is closer to the stretch objective of 80% of visits. In addition a larger proportion (30% vs. 20% in Table 2.3) of clients received at least 80% of their expected visits. There are again significant site differences, with site 3 achieving the highest proportion of clients receiving at least 80% of their expected visits (44%), the lowest proportions being in sites 1, 4, 6 and 10, all below a quarter of clients.

Table 2.5 presents the same information, but including only those clients who remained with FNP for the whole of their pregnancy. While the calculation of expected visits for all clients does take into account attrition (i.e. the calculation stops at the point where they left so no more visits are expected), those clients remaining with the programme appear to have been slightly more likely to receive a larger percentage of visits with an average of 69% of their expected visits; almost one third (32%) received 80% or more. Thus they may be more responsive overall, less likely to cancel or not be at home when the FN calls. Site 3 again has the highest proportion with 80% or more and sites 4 and 10 the lowest. Overall if clients remain with FNP throughout their pregnancy they are likely, throughout England, to receive more than two thirds of their expected visits. Clients in site 3 were the most likely to receive this level of support, with site 5 close behind whereas in other sites this was not so frequent.

In all but one site some clients received more than 100% of expected visits in pregnancy (see Tables 2.4 and 2.5) so there is potential to increase the proportion of clients receiving at least 80% of visits, if a cap were placed on the number of visits. However it should be assumed that there were good reasons why more frequent visits were made, based on client vulnerability and need.

Table 2.4 - Including all enrolled clients who had completed their pregnancy (N=1255), pregnancy visits completed and the percentage of expected visits, taking into account gestation at intake and attrition, by site

Site	N	Mean visits	Range	Mean visits expected	Mean % of expected achieved	Range % of expected achieved	% with 80% or more
1	109	8.1	1-19	12.7	63	7 - 119	24
2	110	8.2	1-17	11.7	70	15 - 140	30
3	188	9.0	1-16	12.1	73	14 - 200	44
4	152	6.5	0-15	10.7	62	0 - 200	22
5	115	8.2	1-18	11.1	74	20 - 125	39
6	98	7.2	1-14	12.0	60	6 - 100	18
7	107	7.5	1-20	11.6	64	9 - 167	25
8	131	6.2	0-24	10.0	63	0 - 136	30
9	129	6.5	0-12	9.8	69	0 - 200	36
10	116	6.1	1-14	10.7	57	8 - 125	21
Total	**1255**	**7.4**	**0-24**	**11.2**	**66**	**0 - 200**	**30**

Table 2.5 Including clients remaining with FNP throughout their pregnancy (N=1085), pregnancy visits completed and the percentage of expected visits, taking into account gestation at intake and attrition, by site

Site	N	Mean visits	Range	Mean visits expected	Mean % of expected achieved	Range % of expected achieved	% with 80% or More
1	92	9.1	2-19	13.4	68	12-119	26
2	98	8.8	3-17	12.2	73	27-140	33
3	144	10.7	3-16	13.6	81	23-186	52
4	128	7.3	0-15	11.5	64	0-200	23
5	101	8.9	3-18	11.8	76	29-125	42
6	83	7.8	1-14	12.6	63	14-100	21
7	96	8.0	1-20	12.1	66	9-167	26
8	124	6.4	0-24	10.1	64	0-136	31
9	118	6.9	0-12	10.3	69	0-133	36
10	101	6.7	1-14	11.0	61	8-125	24
Total	**1085**	**8.1**	**0-24**	**11.8**	**69**	**0-200**	**32**

While the programme is guided by a detailed curriculum, a particular strength of the FNP support is that the FNs provide the programme with flexibility. Thus it is likely that there will always be some clients who require more than 100%. There may also always be clients who receive a small proportion of visits during pregnancy, but who are kept in the programme in the hope that their involvement will increase in the future once their baby has been born. This strategy is discussed in more detail in Chapter 3, dealing with ways to increase client retention.

Infancy

All the figures and tables pertaining to delivery in infancy refer to clients whose infant had reached 12 months, so that the infancy phase was complete. The programme materials are designed so that there can be 28 infancy visits, offered weekly for 6 weeks after the baby's birth and then fortnightly, and the stretch objective for infancy is lower than that proposed for pregnancy, for clients to achieve at least 65% of the expected visits. The percentage of expected infancy visits completed is presented for three groups of clients (see Table 2.6). First figures are given for all wave 1 clients whose child had reached 12 months, including those who had at some point during pregnancy or infancy left FNP (N=712). Secondly, figures are given for clients with a child of at least 12 months old who remained with the programme throughout pregnancy and thus would be expected to have some infancy visits (N=614). Finally figures are given for the smaller group whose infant had reached 12 months of age and who were still with FNP (N=467), who would be the most likely to receive the full complement of 28 visits. All calculations of expected infancy visits take into account the time of departure from the programme, i.e. no visits are expected once the client has been identified by their FN as leaving the programme. If a client left during pregnancy then their percentage of expected infancy visits has been set at 0 so that they can be included in the calculations.

Just over a quarter of those whose baby had reached 12 months (223/712, 31%) had received at least 65% of the expected number of visits during infancy with a further 16% (113) receiving between 55 and 64% (see Table 2.6). However it can be seen in Table 2.6 and Figure 2.3 that a substantial proportion (17%) received no infancy visits at all, principally because they left the programme during pregnancy. Excluding those clients, a rate of at least 65% of expected visits was achieved for more than one third (223/614, 36%) and by close to half the clients who were still active at 12 months (200/467, 43%; see Table 2.6). It can be seen (Figure 2.4) that the most common client experience for those who did not leave in pregnancy was to receive just under the expected number of visits at 55 to 64% (18%) and that only a small proportion (64/614,10%) received less than a quarter of their expected visits. For those remaining throughout pregnancy (Figure 2.5) it was as likely that clients would receive 55 to 64% or 65 to 74%.

Table 2.6 - Distribution of the percentage of expected infancy visits received, for all clients whose infant had reached 12 months of age (N=712), the subgroup active during infancy (N=614), and the subgroup active at 12 months (N=467), taking into account attrition

% of expected infancy visits achieved	All with 12 month old	%	Sum %	All Active during Infancy	%	Sum %	All still Active at 12 months	%	Sum %
0	119	16.7	16.7	21	3.4	3.4	1	0.2	0.2
<15%	21	2.9	19.7	21	3.4	6.8	6	1.3	1.5
15-24%	22	3.1	22.8	22	3.6	10.4	5	1.1	2.6
25-34%	34	4.8	27.5	34	5.5	16.0	20	4.3	6.9
35-44%	84	11.8	39.3	84	13.7	29.6	64	13.7	20.6
45-54%	96	13.5	52.8	96	15.6	45.3	73	15.6	36.2
55-64%	113	15.9	68.7	113	18.4	63.7	98	21.0	57.2
65-74%	108	15.2	83.8	108	17.6	81.3	98	21.0	78.2
75-84%	64	9.0	92.8	64	10.4	91.7	58	12.4	90.6
85-94%	32	4.5	97.3	32	5.2	96.9	30	6.4	97.0
95+%	19	2.7	100.0	19	3.1	100.0	14	3.0	100.0
Total	**712**			**614**			**467**		
65%+	**223**	**31.3**		**223**	**36.3**		**200**	**42.8**	

Figure 2.3 - Distribution of the percent of expected visits achieved in infancy, all clients whose infants had reached 12 months of age (N=712), taking into account gestation at intake and attrition

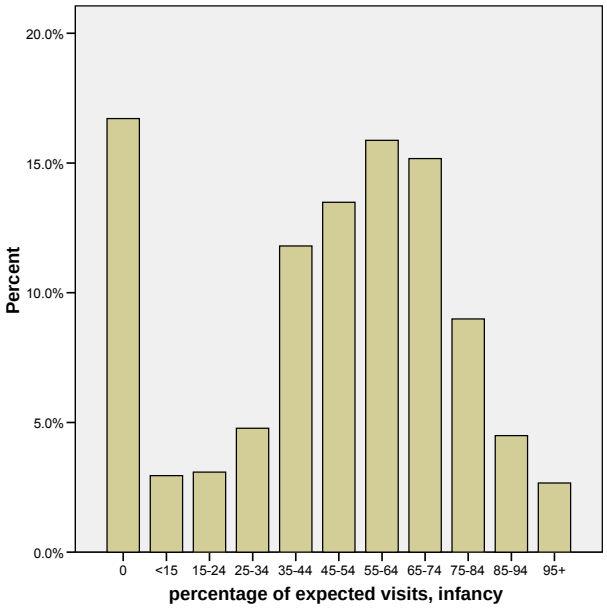


Figure 2.4 - Distribution of the percentage of expected visits achieved in infancy, all clients whose infant had reached 12 months and who did not leave in pregnancy (N=614), taking into account attrition

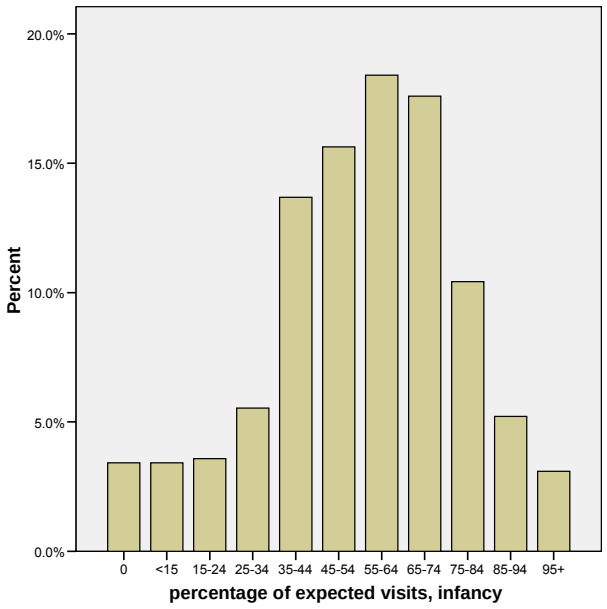
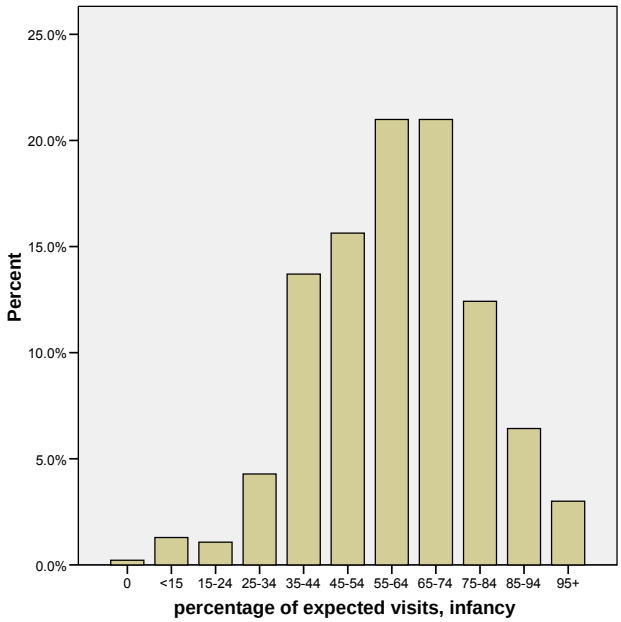


Figure 2.5 - Distribution of the percentage of expected visits achieved in infancy, all clients whose infant had reached 12 months and who were active at 12 months (N=467)



Site comparisons, infancy

The mean number of visits received overall in infancy was 13.0 and the average percent of expected visits received was just under half (48%, see Table 2.7). Site 2 completed the largest number of visits in infancy and site 10 the least. In site 2 more than half the clients enrolled whose child had reached 12 months received 65% or more of the expected visits, compared to only 15% in site 10 and just over 20% in sites 4, 8 and 9.

Table 2.7 - Infancy visits completed and the percentage of expected visits by site, for all enrolled clients whose children were at least 12 months old (N=712)

Site	N	Mean completed Visits	Range	Mean % of expected	Range %	% with 65% or more
1	43	14.4	0 - 33	50	17 - 114	40
2	71	17.4	0 - 32	61	7 - 110	54
3	113	12.1	0 - 27	45	0 - 93	37
4	85	11.3	0 - 27	42	0 - 100	21
5	65	14.2	0 - 32	52	0 - 110	34
6	73	12.8	0 - 26	49	0 - 88	36
7	65	14.2	0 - 34	51	0 - 117	33
8	77	12.3	0 - 29	46	0 - 120	21
9	61	11.7	0 - 34	47	0 - 117	23
10	59	10.5	0 - 24	38	0 - 81	15
Total	**712**	**13.0**	**0 - 34**	**48**	**0 - 120**	**31**

In each of the sites some of the clients had left during pregnancy. Table 2.8 excludes them and gives information about those clients who were still with FNP at the beginning of infancy. For that group the overall average of expected visits received was close to the stretch objective of 65% at 55%, with an average of 60% or above in 4 of the 10 sites. In sites 2 and 3 more than half the clients had received at least 65% of visits with sites 1 and 6 close to

that. By contrast, in four sites (4, 8, 9, and 10) less than a quarter of clients received 65% or more of their expected visits.

Including only those clients still with the programme when their baby was 12 months old (N=467, see Table 2.9) the mean percentage of expected visits overall was higher still at 61%, and overall 43% had received at least 65% with the highest proportions again in sites 2 and 3.

Table 2.8 - Infancy visits completed and the percentage of expected visits by site, for clients whose children were at least 12 months old and who did not leave FNP during pregnancy (N=614)

Site	N	Mean completed Visits	range	Mean % of expected	% range	% with 65% or more
1	36	17.2	3- 33	60	17 - 114	47
2	64	19.3	2 - 32	68	7 - 110	59
3	79	17.3	1 - 27	64	8 - 93	53
4	74	12.9	0 - 27	48	0 - 100	24
5	57	16.1	0 - 32	60	0 - 110	39
6	63	14.8	0 - 26	57	0 - 88	41
7	57	16.2	0 - 34	58	0 - 117	37
8	76	12.5	0 - 29	46	0 - 120	21
9	58	12.3	0 - 34	49	0 - 117	24
10	50	12.4	0 - 24	45	0 - 81	18
Total	**614**	**15.0**	**0 - 34**	**55**	**0 - 120**	**36**

Table 2.9 - Infancy visits completed and the percentage of expected visits by site, for clients whose children were at least 12 months old and who were still active at 12 months (N=467)

Site	N	Mean visits	range	Mean % of expected visits	% range	% with 65% or more
1	34	18.1	5 - 33	62	17 – 114	50
2	62	19.7	2 - 32	68	7 – 110	61
3	63	19.7	11 - 27	69	38 – 93	62
4	54	16.0	5 - 27	55	17 - 93	30
5	47	18.2	5 - 32	63	17 – 110	43
6	39	18.3	11 - 26	63	38 – 88	49
7	45	18.1	0 - 34	62	0 – 117	44
8	51	15.9	2 - 29	55	7 – 100	28
9	35	15.9	8 - 34	55	27 – 117	29
10	37	15.2	2 - 24	52	7 – 81	19
Total	**467**	**17.7**	**0 - 34**	**61**	**0-117**	**43**

Thus overall, more than a third of the clients who stayed with FNP until their child was born went on to receive at least 65% of the recommended number of infancy visits, and this was not surprisingly more likely if they were still considered an active client when their baby was 12 months old. Some sites appear to be managing to get close to this stretch objective while others are struggling. The infancy objective is not influenced by aspects of the client group at intake (i.e. their gestational age) suggesting that factors related to team functioning or other events (such as staff on sick or leaving) may be important in explaining the wide variation between sites. This is discussed in Chapter 9.

Since some clients deemed active received no infancy visits, or only a small number (the range of visits was from 5 or fewer in 7 of the 10 sites for clients said to be still active at the end of infancy, see Table 2.9), efforts are apparently being made to keep clients engaged even when they are not visited. Given that there are some 'dormant' clients on caseloads it may be necessary to increase the number of clients per FN to take this into account. This is discussed in more detail in Chapter 7 in relation to the proportion of FN time that is spent on client contact or programme related activity.

B. Family nurse views on attaining stretch objectives

Family Nurses (N=44) were sent questionnaires asking about their views on what would help them to improve the proportion of visits made to their clients and all responded. Given a list of possible solutions they were asked to rate each on a scale from 1 (not helpful) to 10 (very helpful).

Table 2.10 - Strategies FNs predict would increase dosage. Mean ratings on a scale from 1 (not helpful) to 10 (very helpful)

	Possible changes to increase dosage	Mean
1	Have a longer recruitment period in future	9.6
2	Having more familiarity with FNP materials	8.8
3	Reduce the requirement to keep duplicate NHS records	8.2
4	More time for team discussion about materials	8.0
5	More administrative support for preparing materials	7.8
6	Improved speed and rate of action by other agencies in response to Family Nurse requests.	6.6
7	Improved access for clients to other services	6.5
8	Reduce the amount of non- FNP activities required by local managers	6.2
9	Having the additional skills to be able to adapt my approach more readily to individual families	5.7
10	Fewer requirements to speak to professional groups	5.5
11	Complete FNP data forms electronically with clients during the visit	5.3
12	Making catchment area smaller	5.2
13	Reduce the number of multi-professional meetings	5.1
14	More time spent looking at reports from the database	4.5

Almost all considered that a different and less compressed period of recruitment would have increase the likelihood of achieving better dosage (see Table 2.10, item 1). They rated as very useful administrative changes such as not having to keep duplicate NHS records (item 3) and not having to photocopy materials themselves (item 5) and also considered that dosage would increase if they were more familiar with, and therefore confident to use, the materials (items 2 and 4). They did not, on the whole, think that more time spent studying the reports summarising how many visits had been made per client (item 14) would be very helpful (the reports are discussed in more detail in Chapter 5).

They could write in their own ideas about how to improve dosage and these included: a smaller caseload, that clients with greater needs should count as 1.5 clients, and that time spent on meetings with professionals about clients should also be taken into account and recorded as FNP visits. Several thought that dosage should take into account the competing demands on the client, i.e., that if the client was working and could not be home for as many visits then her expected number of visits should be reduced accordingly.

C. Nature of the visits

The fidelity guidelines give stretch objectives for the recommended length of visits (at least 60 minutes) and the proportion of the time with clients that should ideally be spent on each of the five domains of the programme's content - the mother's personal health, the maternal role, the mother's life course, family and friends, and environmental health (see Appendix B).

In all sites the visits were on average above the recommended minimum length with an overall mean of 74 minutes in pregnancy and in infancy, with site means ranging from 62 to 82 minutes in pregnancy and 62 to 81 in infancy (see Tables 2.11, 2.12 and 2.13). The recommended proportion of time spent on each of the five domains for the pregnancy and infancy phases is shown in Tables 2.11, 2.12 and 2.13 with details of the average amount of time spent on each domain by site, for all those clients for whom pregnancy was complete, i.e. their infant had been born (N=1255); for clients with any infancy visits (N=1036) and then for those clients whose infants had reached 12 months and had received any infancy visits (N=593).

During pregnancy the coverage on personal health, the maternal role and life course were as expected in most sites, with marginally more time spent on family and friends than the objective and about twice as much time as suggested on environmental health in most of the sites (see Table 2.11). There was more variation between sites in coverage of personal health, with three sites spending on average below the suggested proportion of time (35 to 40%) and one site just above the stretch objective at 41%.

Table 2.11 - Nature of visits completed during pregnancy, for all those clients whose infant had been born (N=1255)

Site	Personal health	Maternal role	Life course	Family and friends	Environ-mental Health	Mean visit length
Target	**35-40%**	**23-25%**	**10-15%**	**10-15%**	**5-7%**	**(60 mins.)**
1	39	23	10	16	11	62
2	30	27	12	18	13	75
3	32	23	13	16	15	65
4	36	24	11	15	14	78
5	40	26	11	13	10	74
6	35	24	10	18	14	78
7	36	21	11	18	14	79
8	30	28	13	15	14	74
9	36	25	11	17	13	78
10	41	23	10	16	12	82
Total	**35**	**24**	**11**	**16**	**13**	**74**

During infancy visits personal health and environmental health were covered to a slightly greater extent than the suggested target levels in most of the sites while less time was spent on average on the maternal role than the US guidelines indicate to be optimal in 6 of the 10 sites. The pattern was similar for those clients who had any infancy visits (Table 2.12) and for those who had stayed with FNP until their child was at least 12 months old, moving into the 'toddlerhood' phase of the programme (Table 2.13). A small number of sites appeared to

diverge more from the stretch objectives. For example sites 7 and 8 both spent on average less than the suggested time on the maternal role during infancy (see Tables 2.12 and 2.13). In site 7 relatively more time was spent on environmental health (e.g. child safety) than the target while in site 8 more time was given to the mother's personal health than the target. In contrast in sites 3, 5 and 6 for example coverage of the maternal role was as expected (45-50%) and all other averages were within or very close to the target levels. It is possible that more supervision time in these sites was spent with the reports providing detailed information about domain coverage, per nurse and per client. This and other reasons for the differences in patterns of programme delivery by site will be investigated further in forthcoming research.

Table 2.12 - Nature of visits completed during infancy, for all those clients who had any infancy visits (N=1036)

Site	Personal health	Maternal role	Life course	Family and friends	Environ-mental Health	Mean visit length
Target	**14-20%**	**45-50%**	**10-15%**	**10-15%**	**7-10%**	**(60 mins.)**
1	20	45	11	14	10	62
2	21	41	11	15	12	76
3	20	47	10	13	11	69
4	24	41	10	12	13	77
5	21	47	11	12	9	73
6	22	47	9	13	10	76
7	20	36	12	17	15	81
8	24	38	12	14	13	74
9	25	42	10	14	11	78
10	25	40	11	13	13	78
Total	**22**	**42**	**11**	**14**	**12**	**74**

Table 2.13 - Nature of visits completed during infancy, for all those clients who remained with FNP until their child was 12 months old (N=593)

Site	Personal health	Maternal role	Life course	Family and friends	Environ-mental Health	Mean visit length
Target	**14-20%**	**45-50%**	**10-15%**	**10-15%**	**7-10%**	**(60 mins.)**
1	22	44	11	15	10	62
2	21	41	11	15	12	76
3	19	46	10	13	12	69
4	25	39	11	12	13	77
5	22	46	11	11	10	73
6	22	46	9	13	10	75
7	20	36	12	17	14	81
8	25	36	12	14	13	74
9	26	41	11	14	10	78
10	26	39	11	14	13	78
Total	**23**	**41**	**11**	**14**	**12**	**75**

Conclusions

Can FNP be delivered with fidelity in pregnancy and infancy? Some aspects of delivery are close to or are in accordance with the stretch objectives recommended by the US National Office, indicating good progress in this early stage of the programme's life. The final information on delivery during pregnancy is comparable with the preliminary data presented for about half of the clients in year 1 of the evaluation (Barnes et al, 2008; page 34). Thus sites have maintained but not increased the proportion of pregnancy visits completed. The final figures (Table 2.4) reveal substantial variations between sites and the reasons behind

variation in the proportion of clients with visits at the target level between 18% and 44% merit further investigation. Indeed, for many aspects of programme delivery there are substantial differences between sites in the extent to which they come close to the stretch objectives. It is impressive that in one site (3) more than half of the clients who stayed with FNP throughout their pregnancy received at least 80% of visits and the strategies that they used to monitor and maintain this level of delivery will be useful for newly developing sites in Waves 2, 3 and 4 of the programme.

Examination of those sites coming closest to or farthest from the stretch targets for the percentage of expected visits should be illuminating. However, no clear picture emerges when integrating the existing information. A possibility is that sites are focussing either on lengthy visits but were not so concerned about how many visits they were completed in a week, or focussing on making the maximum number of visits per client. Site 10 appears to follow this pattern with the second longest average infancy visit length (see Table 2.13) and the lowest mean percent of expected infancy visits completed (see Table 2.7). However one might then expect that the site with the shortest visits on average in infancy (site 1) would have managed to come the closest to the stretch objective of 65% or more of expected visits and they were only the 4th best sites in infancy based on the average percentage of expected visits completed, while the best performing site (2) had the 5th longest average visit length (see Table 2.7). The site with the longest average visit length in infancy (site 7) and the third highest mean percent of visits completed of the ten sites. At the individual level their average visit length had virtually no relationship with the percent of expected visits received (r=0.06). Thus it is likely that aspects such as team functioning, staff sickness or local demands on the FNs' time may be related to these differences between sites. Variations between sites across a number of domains of programme functioning are discussed in more detail in Chapter 9, with ideas for future investigation.

The duration of visits overall and in each site exceeds the minimum suggested of 60 minutes but there are quite large mean differences between the sites. The content covered in the visits is predominantly in line with the stretch objectives, especially in pregnancy. During the infancy visits it appears that FNs are spending slightly more time on maternal health and environmental health, and slightly less than recommended on the maternal role, which is designed to be the major focus of infancy. Possibly the previous experiences of the FNs, most of whom were health visitors (see Barnes et al., 2008 for details) has drawn them more to the health topics whereas they are less used to spending time on parenting behaviour.

There are marked variations in this respect by site but most are spending the recommended amount of time on the maternal role in infancy, when it is given more priority than was the case in pregnancy. Possibly close use of the monthly reports that give information about the content of visits by client (see Appendix D and Chapter 5 for details of reports and how they are used) may be required in order to help FNs in the transition between pregnancy visits and those designed for infancy. Alternatively site differences might be related to group preferences for certain types of material. This will be explored further in the next phase of the evaluation. The role of the supervisor and wider management appear to be crucial and these are discussed in more detail in Chapter 5.

Chapter 3 - Retention of Clients

Investigations of the effectiveness of home-visiting programmes acknowledge the importance of understanding attrition (Olds, 2003). Generally intensive programmes are targeted at those families that may be vulnerable, and they may also be difficult to engage (Barnes, 2003). However, attrition is not necessarily random; it is likely that certain types of families or families in certain types of neighbourhood may be more likely to leave. For instance in a child abuse prevention programme offered in the USA, families from communities with more violence more often dropped out, as did younger mothers, while Hispanic mothers were less likely to drop out (McGuigan, Katzev & Pratt, 2003).

Programme such as FNP need to be delivered to families who need it most, and these may be the ones who are also more likely to drop out. Once nominally engaged they may then opt out actively - by asking that the home-visitor does not come again - or more passively by missing appointments and not being available on the telephone. Research evidence from the USA has shown that a proportion of families may drop-out before the service's intended completion date, and that rates of attrition in the national dissemination of the programme are greater than those described in the three research trials (Ingoldsby et al., 2009). Now that the programme is being disseminated in England it is important to know what the rate of attrition is in this country, and factors associated with more or less attrition so that it can be minimised. For example characteristics of clients who stay with the programme can be compared with those who leave. By comparing sites it is also possible to link attrition to different patterns of site functioning.

In the USA it has also been possible to link attrition with different styles of behaviour of the nurses (Ingoldsby et al., 2009). They found after interviewing nurses with high or low rates of retention of clients that those who had low retention indicated that clients needed to adapt and "fit with the programme" and generally had a more directive approach, they emphasized the programme's "perks" and positive outcomes with completion. In contrast, nurses who had higher retention talked more about the importance of tailoring and adapting the programme to the needs and interests of the clients. On the basis of these interviews a trial is taking place of different types of nurse training, one of which includes more emphasis on choices being presented to the clients, for example to alter visit schedule (e.g. fewer visits for a while), for the client to identify and choose which programme content was important to her, and to offer a different nurse. Preliminary research in the USA (Ingoldsby et al., 2009) has found that this approach, based on motivational interviewing, has increased client retention.

A. Rates of attrition

The guidelines from the USA National Service Office for NFP indicates that the aim of any FNP site (the stretch objective) is for cumulative attrition from early pregnancy up to the child's second birthday not to exceed 40% and further recommends that sites should work towards limiting attrition to 10% or less for the pregnancy phase, 20% or less for the infancy phase (where the most drop-out is expected) and then 10% for the final, toddler phase (see Appendix B).

In this report the rate of attrition in pregnancy and infancy are documented in this first roll-out of FNP in England in the 10 Wave 1 sites, the reasons for no longer receiving FNP are described, FN thoughts on ways to reduce attrition are given and the characteristics of families who have dropped out are examined, comparing them to those who remain with the programme. It is important to note (described in more detail in section C) that not all reasons for leaving are potentially in the FN's control, including clients who move out of the area, those who miscarry or who decide on a termination.

Site comparisons, attrition

Table 3.1 shows attrition in pregnancy for all those clients whose pregnancy was complete (N=1255) separately for each site. The overall pregnancy attrition during in the 10 sites was just above the stretch objective of 10% at 14% but with substantial variability between sites (5% to 23%). The average gestational age of clients leaving the programme was 27 weeks.

Table 3.1 - Attrition during pregnancy by site for all clients whose pregnancy was complete (N=1255)

Site	N Active (%)	N Left in pregnancy (%)	Mean gestation at leaving	Range	Total N
1	92 (84)	17 (16)	27	15-38	109
2	98 (89)	12 (11)	30	16-39	110
3	144 (77)	44 (23)	27	14-40	188
4	128 (84)	24 (16)	26	15-38	152
5	101 (88)	14 (12)	26	14-37	115
6	83 (85)	15 (15)	28	10-37	98
7	96 (90)	11 (10)	26	9-40	107
8	124 (95)	7 (5)	27	19-33	131
9	118 (91)	11 (9)	28	19-35	129
10	101 (87)	15 (13)	33	20-39	116
Total	**1085 (86)**	**170 (14)**	**27**	**9-40**	**1255**

Cumulative attrition for the pregnancy and infancy phases is given in Table 3.2 for the 712 clients who had reached the end of the infancy phase in that their baby was at least 12 months old. The infancy level of attrition overall in the 10 wave 1 sites in England was in accordance with the stretch objective of 20% attrition during infancy; 147 (20.6%) left FNP in infancy and the average age of their infants at leaving was 26 weeks or 6 months old (range 0 to 51 weeks). Again there is substantial site variation in infancy (3% to 38%).

Table 3.2 - Attrition during pregnancy and infancy by site for all clients whose infant had reached 12 months of age (N=712)

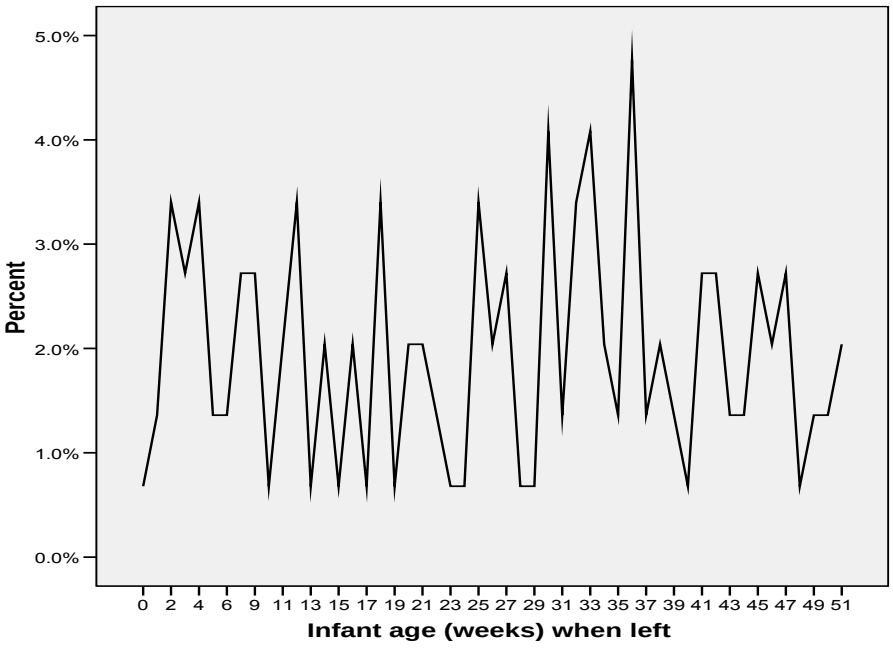
Site	N Active at the end of infancy (%)	N Left in pregnancy (%)	N Left in infancy (%)	Mean child age at leaving (weeks)	Range	Total N
1	34 (77)	7 (16)	2 (5)	31	2-30	43
2	62 (85)	7 (10)	2 (3)	22	8-35	71
3	63 (56)	34 (30)	16 (14)	24	4-51	113
4	54 (61)	11 (13)	20 (24)	25	4-50	85
5	47 (72)	8 (12)	10 (15)	20	2-41	65
6	39 (43)	10 (14)	24 (33)	27	2-50	73
7	45 (65)	8 (12)	12 (19)	35	2-48	65
8	51 (65)	1 (1)	25 (33)	23	0-49	77
9	35 (54)	3 (5)	23 (38)	29	2-49	61
10	37 (61)	9 (15)	13 (22)	22	1-51	59
Total	**467 (63)**	**98 (14)**	**147 (21)**	**26**	**0-51**	**712**

Interestingly in some sites the rate of attrition had changed substantially and in a way that the USA guidelines would not predict. The stretch objectives (10% pregnancy, 20% infancy) indicate an expectation that attrition is likely to rise in infancy and this was the case for 7 of the 10 wave 1 sites. The extent of increase is larger than 10% in some cases. The two sites with the lowest levels of pregnancy attrition (sites 8 and 9) had very high levels of infancy attrition with increases in their attrition rates of 28% and 29% respectively (see Tables 3.1 and 3.2). This might indicate that there were strategic reasons for low attrition in pregnancy, keeping clients on the caseload in the hope that they would re-engage, but that this was then changed during the infancy phase.

The opposite strategy might have been taking place in sites where the rate dropped - they may have been (perhaps prematurely) deciding in pregnancy that clients should be described as leavers as they missed many appointments, but then worked more on re-engaging with clients in infancy and leaving the door open for them to return. This may also have been related to early efforts to recruit a full caseload. In the case of site 3 attrition dropped from 23% in pregnancy to 14% in infancy, site 1 having the same pattern, changing from 16% to 5% from pregnancy to infancy. Other sites managed to maintain relatively low and stable levels of attrition in both phases, specifically sites 2 and 5.

Figure 3.1 shows the point in infancy when clients whose infants were at least 12 months of age left the programme, for those clients who remained in FNP throughout their pregnancy but who left during the infancy phase. While the average age of their infants at the point of departure from the programme was 26 weeks the range covered the entire 12 months (see Table 3.2) and there was no obvious peak in attrition during infancy.

Figure 3.1 - Child age at which attrition took place during infancy, for all clients with infants of at least 12 months who left during infancy (N=147)



From the data on programme delivery in Chapter 2, considering the group of clients who have been with FNP for the whole of infancy, there are some figures that suggest FNs are reluctant to give up on clients in the infancy phase. For instance some are said to still be active at the end of infancy but they have received no visits for the whole year and others have received as few as 2, with at least one client receiving 5 or fewer visits during the 12 month infancy phase in 7 of the 10 sites (see Table 2.9) (NB. the number of infancy visits in the curriculum is 28). On the other side of the coin, while other clients are receiving more

than the expected number of visits, this 'over-visiting' is at its highest 120%, lower than the level of 'over-visiting' in pregnancy which suggests that FNs are monitoring their whole caseload more carefully in infancy to ensure that some clients do not absorb an excessive amount of their time.

Overall, looking at the cumulative attrition across both time periods, sites 1, 2 and 5 were the most successful in retaining clients and sites 4 and 6 the least successful. It is important to note that in both of these sites there were staff departures, limiting the extent to which remaining clients could be supported adequately and in some cases clients decided that they did not want to have support from a different FN. This is discussed further in Chapter 6.

B. Who leaves, who stays?

Table 3.3 - Demographic characteristics of clients enrolled in FNP whose infant had been born (N=1255) [2]

Client Characteristic	Mean (range)	N (percentage)
Gestation at enrolment (weeks)	17.9 (3-35)	-
Age at enrolment (years)	17.5 (13-24)	-
13 to 15 years	-	140 (11.2)
16 to 17 years	-	484 (38.7)
18 to 19 years	-	505 (40.4)
20 to 24 years	-	121 (9.7)
Marital status - single	-	828 (72.4)
cohabiting	-	219 (19.1)
married	-	92 (8.0)
Separated / widowed	-	5 (0.4)
Number of other people in the household	2.5 (0-10)	-
Lives with - own mother, no partner	-	472 (41.1)
own mother plus partner	-	101 (8.8)
partner	-	182 (15.8)
partner and others, no mother	-	111 (9.7)
other adults, no partner or mother	-	95 (8.3)
alone	-	103 (9.0)
in shelter / homeless	-	85 (7.4)
Ethnic group - white	-	910 (79.1)
black	-	88 (7.7)
Asian	-	77 (6.7)
mixed	-	59 (5.1)
other	-	16 (1.4)
In school or vocational programme	-	309 (27.4)
Not in education	-	819 (72.6)
Number of GCSEs any grade	3.9 (0-16)	-
Number of GCSEs, A* to C	2.1 (0-16)	-
Employed, full time	-	117 (10.3)
Employed, part-time	-	125 (11.0)
Not employed / never worked	-	896 (78.7)
Smoker at intake	-	437 (39.3%)

Client demographic characteristics at enrolment were examined to see if there were any factors that differentiated between those who had left during pregnancy or in infancy and those who remained in the programme. For comparison purposes information about the total group enrolled and who had completed their pregnancies is given in Table 3.3.

[2] Note that for most characteristics the total N is not 1255 since demographic background forms were not completed for all clients.

Gestation at enrolment

Considering all clients whose infants had been born (N=1255), those who left the programme during pregnancy were enrolled on average 2 weeks earlier in their pregnancy than those who were still receiving the programme at the end of pregnancy (see Table 3.4). However there was no difference in gestation between those clients with infants of at least 12 months remaining with the programme and those leaving in infancy (N=614, Table 3.6).

Maternal age at enrolment

The average age at recruitment of those clients who remained with FNP during pregnancy was significantly lower than that of clients who left during pregnancy (see Table 3.4). Nevertheless the difference in mean age was in real terms negligible (17.5 vs. 17.8 years) and breaking the clients down by age group there was no significant difference between those staying throughout pregnancy and those leaving (see Table 3.5). There was no difference in mean age at enrolment or age group between those leaving in infancy and those remaining for the entire 12 months (see Tables 3.6 and 3.7).

Marital status and household structure

There was no difference in the marital status of leavers compared to those who stayed in the programme either in pregnancy (see Table 3.5) or in infancy (see Table 3.7). Household structure was not related to attrition during pregnancy (see Table 3.5) but was related to attrition during infancy (see Table 3.7). The difference between the groups was predominantly based on twice as many clients living in households with their partner and other adults (but not their one mother) leaving in infancy compared to the proportion of that kind of household among the non-leavers (15% vs.7%) while those living in a household that included their own mother (with or without their partner) were somewhat less likely to leave.

Ethnic group

There was a trend for there to be ethnic group differences in the likelihood of leaving in pregnancy (p=.06); in particular black clients, 8% of the total group, were underrepresented in the leavers group compared to those staying with FNP throughout pregnancy (1% of leavers, 8% of non-leavers) while for white clients the reverse pattern was indicated. They represented 79% of the total group but 88% of leavers (see Table 3.5). There was no difference between different ethnic groups regarding attrition during infancy (see Table 3.7).

Maternal education and employment

There was no difference between leavers in pregnancy and active clients or leavers in infancy and active clients in the average number of GCSEs held (see Tables 3.4 and 3.6). At the time of enrolment, those clients who subsequently left FNP either in pregnancy or infancy were no more or less likely to be in education or in a vocational programme or in employment than those who stayed with the programme (see Tables 3.5 and 3.7).

Smoking status

Reported smoking status at enrolment was unrelated either to leaving FNP in pregnancy (see Table 3.5) or leaving in infancy (see Table 3.7).

Table 3.4 - Comparison of those clients completing pregnancy and those leaving during pregnancy, continuous factors (N=1255)

	N Active	mean	N Left	mean
* Gestation at enrolment (weeks)	1085	18.2	168	16.2
* Age at enrolment (years)	1085	17.5	170	17.8
Other people in the household	1042	2.5	100	2.3
Number of GCSEs, any	994	4.0	103	4.1
Number of GCSEs, A*-C	996	2.0	103	2.5

* Difference between active clients and leavers at p<0.05

Table 3.5 - Comparison of clients completing pregnancy and those leaving during pregnancy, categorical factors (N=1255[3])

		N Active	%	N Left	%
Age group	13 to 15	125	11.5	16	11.2
	16 to 17	429	39.5	58	34.1
	18 to 19	432	39.8	73	42.9
	20 to 24	99	9.1	23	13.5
Marital status	Single	757	72.4	71	71.0
	Cohabiting	197	18.9	22	22.0
	Married	86	8.2	6	6.0
	Separated / widowed	5	0.5	1	1.0
Household structure	Own mother, no partner	430	41.0	42	41.6
	Own mother plus partner	91	8.7	10	9.9
	Partner	166	15.8	16	15.8
	Partner & others, not own mother	103	9.8	8	7.9
	Others, not partner or mother	85	8.1	10	9.9
	Lives alone	100	9.5	3	3.0
	Shelter / homeless	73	7.0	12	11.9
(*) Ethnic group (p<0.06)	White	821	78.3	89	88.1
	Black	87	8.3	1	1.0
	Asian	71	6.8	6	5.9
	Mixed	54	5.1	5	5.0
	Other	16	1.5	0	0
Education	In school / vocational programme	283	27.5	26	26.3
	Not in education	746	72.5	73	73.7
Employment	Employed full-time	103	9.9	14	14.3
	Employed part-time	111	10.7	14	14.3
	Not working / never worked	824	79.4	70	71.4
Smoking	Smoker at intake	326	38.1	111	43.4
	No smoking reported at intake	530	61.9	145	56.6

Table 3.6 - Comparison of clients with infants of at least 12 months staying throughout pregnancy and infancy and those leaving in infancy, continuous factors (N=614)

	N Active	mean	N Left	mean
Gestation at enrolment (weeks)	467	19.6	147	20.1
Age at enrolment (years)	467	17.5	147	17.4
Other people in the household	455	2.6	135	2.6
Number of GCSEs, any	449	3.8	129	4.0
Number of GCSEs, A*-C	449	1.9	129	2.2

[3] Demographic information was collected by the Family Nurses and was not available for all clients for most of the demographic characteristics; see Chapter 5 for more details of missing data forms.

Table 3.7 - Comparison of clients with infants of at least 12 months staying throughout pregnancy and infancy and those leaving in infancy, categorical factors (N=614)

		N Active	%	N Left	%
Age group	13 to 15	58	12.4	14	9.5
	16 to 17	187	40.0	63	42.9
	18 to 19	182	39.0	62	42.2
	20 to 24	40	8.6	8	5.4
Marital status	Single	339	73.9	89	65.4
	Cohabiting	81	17.6	32	23.5
	Married	37	8.1	15	11.0
	Separated / widowed	2	0.4	0	0
** Household structure ($p<0.01$)	Own mother, no partner	202	44.0	52	38.2
	Own mother plus partner	49	10.7	10	7.4
	Partner	66	14.4	23	16.9
	Partner & others, not own mother	31	6.8	20	14.7
	Others, not partner or own mother	34	7.4	8	5.9
	Lives alone	44	9.6	12	8.8
	Shelter / homeless	33	7.2	11	8.1
Ethnic group	White	357	77.8	110	80.9
	Black	50	10.9	7	5.1
	Asian	30	6.5	11	8.1
	Mixed	19	4.1	5	3.7
	Other	3	0.7	3	2.2
Education	In school / vocational programme	110	24.4	29	21.8
	Not in education	341	75.6	104	78.2
Employment	Employed full-time	42	9.2	22	11.6
	Employed part-time	49	10.8	22	11.6
	Not working / never worked	364	80.0	146	76.8
Smoking	Smoker at intake	182	40.5	54	44.6
	No smoking reported at intake	267	59.5	67	55.4

C. Reason for leaving

When clients leave their FN completes the 'Client Activity Status Form' that gives a predefined list of reasons why the client left FNP, with space to also write additional comments. The majority of those leaving in pregnancy and in infancy were said to have decided that they no longer wanted to be involved (see Table 3.8). Other common reasons for attrition were: moving out of the FNP area, many missed appointments, or the FN being unable to locate the client, which all represented approximately the same proportions of leavers in pregnancy and infancy (see Table 3.8). In pregnancy a substantial proportion of the leavers (11%) had miscarried or had a termination and in infancy a smaller proportion had lost the baby after the birth or stopped receiving FNP because the baby was no longer in their care. A further 5.8% could no longer receive FNP during infancy due to staff losses in one site. Those with 'other' reasons specified wanting a holiday from FNP (2) or that they would rather be supported by the local health visitor (1).

Table 3.8 - Reasons for leaving, (Client Activity Status Form) (N=398)

Reason	N	% of pregnancy leavers	N	% of infancy leavers
Declined further participation	83	48.3	93	41.2
Moved out of FNP area	31	18.0	50	22.1
Excessive missed appointments / attempted visits	24	14.0	37	16.4
Unable to locate	15	8.7	16	7.1
Miscarriage / termination / foetal death	19	11.0	0	0
Still birth / Infant death	0	0	6	2.6
Programme lacks capacity	0	0	13	5.8
Child no longer in family's custody	0	0	11	4.9
Total	**172**		**226**	

Reasons could be written in to describe why they decline further participation, the most common one being that they no longer felt the need for any support beyond their family and friends or that their needs had been satisfied (see Table 3.9). It was marginally more likely that leaving clients were said to have indicated that their needs had been satisfied in infancy (21.2% of leavers) than in pregnancy (13.4% of leavers). While some simply said that they had changed their mind a small proportion had received pressure from family members to decline further participation, which was more likely to take place during pregnancy (7.0%) than in infancy (1.8%).

Table 3.9 - Details given for 'Declined further participation' (N=176)

Reason	N	% of pregnancy leavers	N	% of Infancy Leavers
Needs have been satisfied	23	13.4	48	21.2
Has sufficient knowledge and/or support	12	7.0	4	1.8
Changed mind, no longer wants FNP	9	5.2	6	2.7
Pressure from family members	12	7.0	4	1.8
Dissatisfied with the programme	9	5.2	6	2.7
Returned to work	3	1.7	7	3.1
Returned to school	1	0.6	7	3.1
Refused new Family Nurse	3	1.7	4	1.8
Receiving services from another programme	3	1.7	3	1.3
No time	5	2.9	0	0
Other reason	3	1.7	3	1.3
No reason specified	0	0	1	0.4
Total	**83**		**93**	

D. Family nurses' views on attrition in infancy

FNs (N=44) were asked in questionnaires how they felt when they knew that a client was leaving FNP, what their particular strategies were to limit attrition and what they thought would help them to stay with the programme. The questionnaire listed possible emotions they might experience and they were asked to rate each on a scale from 1 (never felt this emotion) to 10 (often felt this emotion). Overall they did not report feeling strong emotions when clients leave, with the highest mean score 5.8 (feeling acceptance; see Table 3.10, item 1). Their training prepares them for the fact that there will be some attrition so, while it is not what they might hope for they understand that this is likely to occur. There were almost equal levels of frustration that they could do more if only the client would stay and pleasure that the decision made by the client to stop the visits reflected their growing competence and self assurance, personal qualities that FNP is designed to develop (items 2 and 3).

Emotions indicating concern for the client's well-being without the programme were fairly common, such as 'worry' about who would support them and also emotions indicating that the FN was not expecting the departure - for example 'disbelief' (item 5) and 'upset' because it would look as though the FN was not doing a good job (item 6). Although not common, some FNs did indicate that they had felt some relief when a particular client had been challenging to work with and anger or annoyance that the programme and they themselves were being rejected, which could also be hurtful (See Table 3.10, items 8, 9 and 10).

In open ended comments FNs described other emotions that they had experienced when clients left. For example when an infant died and when clients had moved out of the area nurses felt sadness and regret that the client was missing out. Knowing why a client had left was helpful and they felt better if the client discussed leaving with the nurse directly rather than being embarrassed to face her.

Table 3.10 - Impact on the FN when a client leaves. Mean scores on a rating from 1 (never felt this emotion) to 10 (often felt this emotion)

	Emotion	Mean
1	Acceptance - it is better for someone else to be on the programme	5.8
2	Frustration - client (and baby) really needs FNP	5.6
3	Pleasure - the client has taken what she needs from the programme and has made a positive decision to move on	5.0
4	Worry - client has no-one to support them now	4.8
5	Disbelief - client was making progress and all seemed to be going well	4.3
6	Upset - it reflects badly on your work	4.2
7	Relief - client was hard to engage and work with	3.7
8	Hurt - feel rejected as a person	3.2
9	Annoyance - there was so much extra work for this client	2.2
10	Anger - client behaved badly	1.4

They were also given a list of possible strategies that they might use to limit the extent of attrition, again indicating on a scale from 1 (never) to 10 (often) how often any were used. This question was given to them on two occasions during the year, first when about a quarter of their clients had infants and then at the end of the year when about half had moved into toddlerhood. The most commonly used strategies at both time points when they suspected that a client was likely to leave were to go to their team and to find out in more detail what particular issues were of concern for the client, often by way of motivational interviewing Table 3.11, items 1, 2 and 3). They also indicated that they would try to strengthen their relationship with the client finding out about their immediate concerns, and also offer them the chance of fewer visits or a break from visits as an alternative to finishing completely with the programme (items 4 and 5), described here by one FN interviewed after she had moved to another job:

> *"Being in tune with them [what helps to retain clients]. I had one client who had mental health problems and sometimes she just didn't want to do the programme and I would give her space and do it when she did want to work with me, rather than saying 'well I'm here to do this visit and I have to complete it'. So flexibility of approach, and almost doing a different type of visit with every family."*

This approach is very similar to the new method being studied in the US. They might also consider if other agencies should be brought in to address the client's needs (item 8). This approach was said to be used significantly more often at the second time of asking. Of all the strategies listed they were least likely to suggest that there could be a change of FN although some had used this strategy occasionally (item 10). It was even less likely to be used at the second time point than the first. Interestingly this strategy is part of the US method of increasing retention.

Table 3.11 - Strategies used by FNs to strengthen the likelihood that clients will stay with FNP. Means on a scale from 1 (never use this strategy) to 10 (often use this strategy).

	Strategies	Mean Time 1	Mean Time 2
1	Ask the team for advice and discuss during individual /group supervision	8.6	8.8
2	Use MI to explore the client's ambivalence about the programme and agree changes to suit her	7.6	8.0
3	Spend more time in visits on the client's immediate concerns rather than planned programme content	7.5	7.0
4	Try even harder to engage client and build a stronger relationship	7.0	7.2
5	Negotiate with client a break for a few weeks from the programme	6.6	6.2
6	Revisit the client's goals and refocus visit content on these	6.6	7.3
7	Negotiate visits less frequently for a while	6.4	6.4
8	Suggest other agencies who may be able to additionally help the mother	6.2	7.6 *
9	Do joint visits with supervisor for a second opinion	4.5	4.4
10	Ask if they would prefer another nurse	3.6	2.7*

* Significant change in reported use from time 1 to time 2 at $p<0.05$

They were (at time 1 only) also given a list of aspects of the programme and asked to indicate whether any were relevant (10) or not relevant (1) in relation to reducing client attrition. To limit attrition nurses believed (in accordance with the new ideas emerging in the US) it was important to adapt the programme to the needs of clients with shorter or less frequent visits and by dealing with pressing short-term concerns of clients (see Table 3.12). Also allowing the client to be honest and to say 'no' if there is something they did not want to do.

In general the prevailing view was that it was a good relationship with the FN combined with enjoyment of the visits, offered flexibly and in a way that took account of the client's particular needs that kept clients involved with FNP (see Table 3.12, items 1 to 4). Achieving some tangible change and the support of family members to stay with the programme were also thought to be relevant (items 5 and 6) which reflects the finding reported in section B that those clients living in households with their partner and other adults but without their own mother were the most likely to leave the programme. In their comments FNs mentioned the importance of listening and encouraging, and empowering the client. Involving partners was also thought to be a valuable way to reduce the likelihood that they would leave the programme.

Table 3.12 - Factors perceived to be likely to help clients stay with FNP. Means on a scale from 1 (not relevant) to 10 (important)

	Factors	Mean
1	A good relationship with the Family Nurse	9.8
2	Enjoyment of the visits	8.9
3	Flexibility in timing of visits	8.8
4	Sensitive use of FNP materials to meet specific client needs	8.4
5	Achieving some change	7.7
6	Support from family members to stay with FNP	7.6
7	Recognition that FNP is needed for many challenges in their life	6.7
8	Support to stay with FNP from other involved professionals (e.g. social worker)	6.3
9	Referrals to other professionals for specific needs	6.3
10	Presence of partner at the visits	5.9

E. Clients' thoughts on attrition

Clients leaving between April and November 2008 (excluding those who left due to foetal or infant death or those whose child was taken into care) were contacted subsequently to see if they would agree to be interviewed and semi-structured interviews were completed with 42. They were asked about their thoughts regarding FNP and their nurse, their reasons for leaving and how they were currently managing. Their average age was 18 years and their average gestation when they started FNP was 15 weeks. They were most likely either to be living alone (15, 35.7%), with their partner (14, 33.3%) or with their own mother (11, 26.2%). For two thirds their current partner was the baby's father. Three were still pregnant and the remainder had given birth (average infant age 16 weeks). The average number of visits they had received ranged from 1 to 50 with a mean of 11.

They were asked if the FNP visits had been useful and more than three quarters (35, 83%) indicated that they had been. A substantial proportion of them (10, 24%) had left the programme because of moving out of the area where FNP was available. A similar proportion (9, 21%) had decided that they did not need the programme since they considered they were coping well with their available support. Others (7, 17%) were too busy due to employment or education or had missed many appointments (4, 10%). Thus their general reasons for leaving were similar to the total group as described in Tables 3.8 and 3.9. Able to nominate more than one source from a list, they indicated that support now came mainly either from their partner (25, 60%), their parents (23, 55%), their health visitor (7, 17%) or friends with babies (6, 14%).

Characteristics of FNP

They were specifically asked if anything about the nurse's behaviour, the FNP materials or the frequency of the visits led them to decide to leave and this was not often specified; 5 (12%) mentioned the nurse, 4 (10%) the frequency of the visits and 3 (7%) the actual materials.

Many of the mothers who had left FNP made comments that were generally positive towards their particular FN and programme. They were aware that the programme was designed to be supportive:

> *"I think it's about support when you first have your baby."*

They also indicated appreciating the detailed information that was provided and that things had been explained methodically and in more detail by the FNs than anyone else:

> *"The visits are very informative. She is very supportive and she tells me what I can and can't do. I couldn't do the breastfeeding and she helped me with this. I breastfed for three weeks and I would have given up much sooner if it wasn't for my nurse."*
> *"It was nice to know you could ask the advice, and I did ring once when I had pains and couldn't feel the baby move. She told me to call the labour ward."*

They reported enjoying the fact that they had the Family Nurse to call on if any questions arose, even when they had some prior knowledge of child development, although this led them to feel bored with visits eventually:

> *"I worked in a nursery before I became pregnant and had a NVQ 2 but it was nice to have someone to talk to."*

> *"To be honest I got quite bored with it. It's all right at the beginning because its new, you don't know much but then when you do there is not much else you can talk about."*

One of the few negative comments about the programme referred to the client's perception that she was being monitored for bad parenting. Presumably the FN was outlining how her role interfaced with her safeguarding responsibilities but the consequence was that this client then decided not to receive the FNP visits:

> *"It made me a little uncomfortable, because she said that if they were to come over after the baby was born and if they see anything they didn't agree with they would report me. You're quite stressed at times anyway so if one day she came up and the baby was giving me a little too much hassle and I was a little bit stressed out, it just made me feel she would go and report me for it so I didn't carry on."*

The frequency of the visits was not appreciated by a number of those interviewed:

> *"It was a hassle, the hassle of getting home, then doing driving lessons; it [FNP] was getting in the way."*
>
> *"I didn't want to be committed to it every week."*
>
> *"Sometimes the visits were spaced out and sometimes they would be every other week and that was a bit too much for me."*
>
> *"Now I have a lot more time to get things done, I'm not having to stay in and worry about people coming around to my house and doing these things. When I've got an appointment with the health visitor I can just go to the doctor's and to do it. I have managed to get quite a few things done that I probably wouldn't have done with people coming around all the time."*

The Family Nurse

Almost every leaving client interviewed described their FN in a very positive light. Friendly, easy to talk to and providing really helpful information were the most common themes:

> "*Yes she is very friendly. She is more like a friend*"
>
> *"I was having a problem with my landlord and she helped me with this."*

A small number made negative comments around being 'bugged' about going to activities or as they perceived it being told the same things:

> *"Sometimes I did, they told me the same thing every week."*
>
> *"She was OK but I knew the things she was telling me."*
>
> *"She was okay but she was bugging me. Kept telling me to go places about my reading and writing and I did not want to. Told me to go to [mother and baby group] and I didn't want to. I felt ashamed to say "No I didn't want to go". She kept texting me and bugging me."*

Some comments indicated that contact between the FN and other local professionals was unacceptable in that it was perceived by the client as breaching confidentiality or failing to be sufficiently supportive, thus a potential strength of FNP in that services could be 'joined-up' if there were additional needs (see chapter 8, case studies for more on this topic) was perceived by some as a problem:

"They (FN and Health Visitor) discussed my business without my permission; other than that it was really good. (FN) brought some bits around when I had the baby. At first I did say to (FN) that she could speak to someone (other health professionals) but then I said that I would get it put in writing but she went ahead and had the conversation anyway without my permission."

"The Health Visitor was basically ringing up to check on my parenting skills and grilling her (FN) for information and she was actually here at the time. I think she should have stood up for me and said that her parenting skills are good."

A generally less 'intrusive' approach was suggested by one as a change that might have persuaded her to remain with the programme:

"If it was not so intense and not so long and prying and I want to be able to talk about things and be free and open."

The focus on encouraging father involvement could also lead to difficulties if there was discord between the parents:

"One minute it's confidential and one minute it's not, that put me in a difficult situation. The women turned round and said it was (FN) who said that [that contact should be arranged] and that he (father) is kicking off because he wants to see his son. He couldn't even turn up to mediation, she was telling me to take the baby over there and it wasn't very helpful on that side of things. And since then I've found out that he smokes crack now."

A few leavers also mentioned that they thought the FN was not sufficiently knowledgeable:

"I asked a question (pregnancy related) and she (FN) didn't know, she said she would find out but I asked the midwife and she knew. Some of them are midwives and some of them (FNs) are health visitors or something, and she knew the Health Visitor stuff more and I asked her about my housing when I lived with my mum and she didn't get back to me quick enough, I ended up doing it on my own. You need to have confidence in them (FNs)."

The materials

Most clients who had left the programme did report enjoying the materials to some extent:

"*They helped me learn about my baby, how my baby grows and what to do."*

"Yes it was all helpful to learn about my baby and how the baby develops."

"I liked the leaflet and forms and the questionnaires."

However many described how they found them too much to take in and only used them selectively. They attended to the materials they liked and learnt something from and disregarded or discarded the ones they knew about or were uninterested in. A few clients did not like the materials at all considering them too simplistic and presented in a manner suitable for someone younger than themselves:

"There was too much information."

"They were more for younger mums, a bit simple and patronising."

"They were not interesting; it was telling me how to look after my baby when I already knew."

"Worksheets would be better for the younger people but because I was a bit older I found them a bit funny."

"Sometimes (liked the materials), I didn't like all the paperwork."

Clearly, while some knowledge had been gained about parenting during the visits that were completed a number of those who left FNP had other individuals to whom they could turn for a support and advice. It is possible that even a small number of visits had allowed them to reach a level of self efficacy. For others the very experience of receiving support was for them a sign that they were in need, which could be counter-productive for their personal well-being and confidence, as indicated by this statement:

"At the moment I've managed to deal with things quite well, I've got an injunction (for father) the other day. I'm getting the support I need and going out and getting the support I need."

Client related factors

For some clients their lives had moved on, possibly as a result of FNP, but this made it problematic to continue. In the case described below employment was taken which meant that arranging visits was not feasible:

"The nurse was really nice and I felt that because she was young she was my age and felt comfortable talking to her. Unfortunately she couldn't visit me past 4.30 pm so she asked me if I wanted another nurse to visit and I didn't. I wanted this particular nurse because she was lovely. I couldn't have visits in the day as I was working."

Others simply felt that they were managing well:

"I didn't leave because of the nurse; it was nothing to do with her. I have enough support from my partner; I'm working part time and find it quite difficult to fit in the visits. I had quite a lot of visits after I had the baby and they were very useful. Now I go to the Children's Centre, the mum's groups, baby massage and so on so I get support there and I have friends with babies."

"We moved house from a bedsit and now finally we have got a house which the nurse has helped us with. I am now busy with the move and my baby is 10 months so I feel okay on my own."

"*Sometimes it's good when you move on and don't need the support anymore*."

One suggested that a change in the programme that might have encouraged her to stay, given her return to education, would be to allow more flexibility, though she did not specify whether she meant visits at different times of day such as the evening, or fewer visits:

"Just try to be more flexible with mums who are working or going to college."

Conclusions

The NFP National Service Office in the USA recommends that sites attempt to keep attrition to 10% or less in pregnancy and 20% or less in infancy and overall the sites in England are coming close to this. However there was a substantial amount of variation between the sites, with pregnancy attrition as low as 5% and as high as 23%, and infancy attrition ranging from 3% to 38%. Some sites had to deal with staff departures or extended absence. In addition it is likely that aspects of site management and team functioning may be related to higher or lower attrition. Few client-related factors were associated with attrition apart from ethnic background (black clients the least likely to leave in pregnancy) and living arrangements (those in households with other adults, including their partner, but without their own parent most likely to leave in infancy). Most of the reasons for leaving given by clients indicated that they felt they were sufficiently knowledgeable and supported to manage without FNP which could be perceived as positive outcomes for the programme. Not all clients may need to receive the support for the whole period of time until their child is 24 months. Indeed the ones moving on with their life, taking up educational opportunities or employment, may be the most difficult to retain in that they will be busy.

Family Nurses could experience strong negative emotions if clients left; particularly frustration that more could have been achieved and anxiety about how the client would progress without the programme. They were likely to turn to the team for advice if they were concerned about a client's involvement. Their belief was that a strong relationship between the client and the FN would help them to stay in the programme and they noted that it may be better to accept a lower level of delivery - in terms of dosage - so that the client can be kept in the programme. This corresponds with research being conducted in the US (Ingoldsby et al., 2009) which has shown that those FNs most successful in retaining clients allow them to 'set the pace' of visits. Thus a balance is ongoing between attempting to make the optimal amount of contact and retaining the clients. Both are important but eventually it may be most important to keep the client connected with FNP even if few visits are being made at certain points. This makes programme delivery challenging for managers, caseloads may not fully reflect the amount of client contact.

Comments made by clients who had already left were usually positive about their FN, saying that the visits on the whole were useful. A number made remarks about the materials and indicated that their level seemed too low, designed for someone younger or with less knowledge. In Chapter 4 there is additional evidence from FN ratings of client involvement that leavers appear to be less engaged with the programme materials. Many of these have since been updated for the English context and may now be more appealing to the more informed clients. For some life had simply become too complicated and they found that their stress was reduced by dropping out of FNP and for others they considered that the programme had been helpful, but that it had served its purpose in that they felt confident and well supported, and knowledgeable about parenting. These clients might usefully be kept on a 'dormant' list, to be checked up with perhaps every 6 months, just in case new issues had arisen. However from their comments they felt that they could access help if needed from other NHS resources such as health visitors.

The one area that could cause some difficulties, mentioned by some of the clients who had left, was a sense that the FN and other professionals - in the context of multi-agency working - appeared to be 'ganging up' on the client in a way that she found unacceptable. While in Chapter 8 cases are described where multi-agency working has led to success, this may need to be managed delicately, especially with clients who may have had negative experiences in the past with professional intervention.

Chapter 4 - Acceptability of FNP in infancy

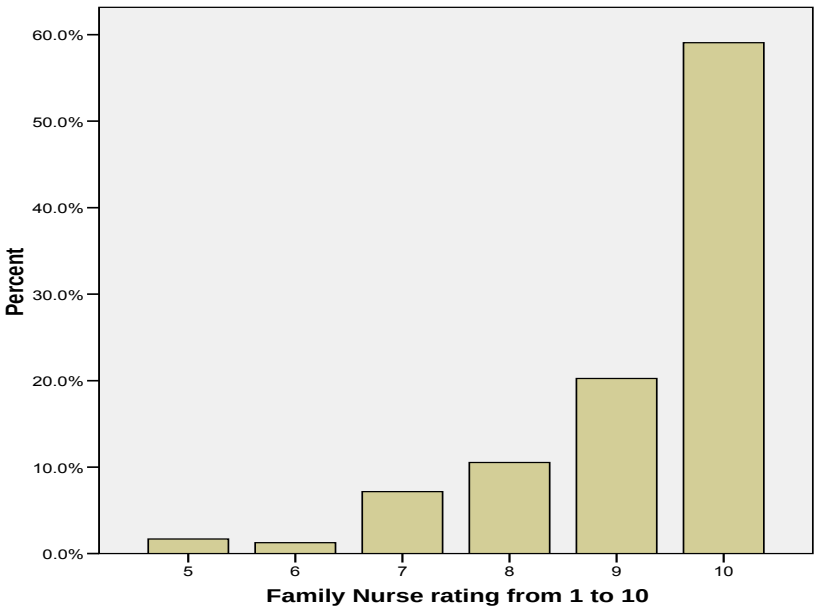
The information presented in Chapters 2 and 3, about the extent of programme delivery and attrition, is relevant to whether or not FNP is acceptable to clients. If they were not really interested in the programme, they may be more likely to make themselves unavailable at the time their visit was due to take place, or they might indicate that they no longer with to receive the FNP support. It is however informative to gain a fuller picture of the acceptability of the programme to ask them directly what they think about both the Family Nurses and about the materials inherent to FNP. Missing a visit may be related not necessarily to reluctance to receive the programme or to the kind of lifestyle that they lead but to other problems that might influence whether or not they are enthusiastic about ongoing involvement.

A. Clients' perceptions of FNP

The Family Nurses

The majority of clients with infants who had a home interview (N=139) or a telephone questionnaire (N=98) rated their Family Nurse on a scale from 1 to 10, with a rating of 1 representing 'she does not provide much support' and a rating of 10 defined as 'she is fantastic, I don't know how I would cope without her, she is so understanding and helpful.' They were almost universally very positive about their FNs, with a mean rating of 9.2, the lowest rating being 5 (see Figure 4.1).

Figure 4.1 - Clients' ratings of their Family Nurse on a 1 to 10 scale (N=237)



During home visits with mothers of 6 or 12 month-olds (N=154) the Nurse-Client Relationship Inventory was also administered. This 27 item questionnaire was administered in the USA for the second (Memphis) trial of NFP (Barnard, 1998; Sikma & Barnard, 1992). Each statement has a 5-point response scale ranging from 'strongly agree' to 'strongly disagree'. A score of 5 indicates a positive view of the relationship and a score of 1 a negative view. The average score was overwhelmingly positive at 115 (total scores can range from 27 to 135) with 20 of the 27 items agreed to or strongly agreed to by more than 90% of the respondents (see Appendix C for full details of responses to each item). The three items with the lowest level of agreement (combining strongly agree and agree) were 'my FN brings out the best in me' (77.3%), 'my FN tells me about herself' (76.6%) and 'my FN helps my family get along better' (56.6%).

During telephone interviews a further 98 clients were asked a reduced set of 15 questions from the Nurse-Client Relationship Inventory. For the telephone administration the 5-point response scale was simplified to three points, agree (2), not sure (1) or disagree (0) giving a total possible score of 30. Their views were also overwhelmingly positive with a mean score of 29. Rates of agreement to the specific items can be seen in Table 4.1 with close similarity to responses to the full scale in that the items endorsed in the full scale were also the least endorsed in the telephone administration.

Table 4.1 - Responses to the shortened Nurse-Client Relationship Inventory (N=98)

Statement	% Agree
My FN understands if I tell her what I want to do	100
My FN helps me to keep a positive outlook	99
My FN respects my independence	99
My FN understands my situation	98
My FN motivates me to keep my child healthy	98
I trust my FN to look after my best interests	98
My FN praises me when I reach a goal	97
My FN helps me learn how to solve my problems	97
My FN is sensitive to how I feel	97
My FN respects my family's way of doing things	97
My FN cares about what happens to me	96
My FN encourages me to succeed in daily life	95
The work my FN and I do together builds on my strengths	93
My FN brings out the best in me	85
My FN tells me about herself	85

The FNP materials

As was the case in pregnancy, ratings of the FNP materials on a scale from 1 to 10 were obtained from 237 clients, interviewed either by telephone or in their home. The end points of the scale were defined for them as '1, the materials were not useful, I knew most if it, they were poorly presented' to '10, they were fantastic, really understandable and have taught me a lot.' The ratings were predominantly positive with a mean of 8.0, though opinions about the materials were more spread across the entire scale than the ratings of the FNs, going below 5 and as low as 1 or 2 in some cases (see Figure 4.2).

Respondents in both the telephone interviews (N=98) and the home visits (N=146) were read a list of 15 materials and asked if they could recall them being used during visits (see Table 4.2) and the percentage recalling each item ranged from 38% to 96%. Interestingly the two that were most closely associated with infant safety were recalled by most, 96% remembering the 'Keep your baby safe' information and 92% recalling 'Keep your baby smoke free'.

Materials recalled by more than three quarters of the respondents included 'Mum's Memo' (84%), 'Dad's Days' (83%), 'When it's time to call the doctor' (79%), and 'Preparing for my baby's checkups' (76%). The 'Mum's Memo' method is used throughout infancy at approximately monthly intervals, in the form of one page worksheets allowing the mother to note useful strategies. For instance at one month they write about how their sleeping is going and make notes about how the day goes when the baby follows a routine. At 5 months, with a focus on the baby spending time with other people, they list places they would like to go such as an exercise class and how to achieve this while keeping their baby safe and happy. The memo for the 9 month stage focuses on managing infant behaviour and how to protect the baby from danger, using an appropriate style of setting limits. Similarly 'Dad's Days' are recurring worksheets for fathers to complete. The 4 month sheet asks about dancing with the baby and gets the father to list care-giving skills in which he feels proficient. It is impressive that the other commonly recalled materials are not used in an ongoing way but are presented only once or twice during infancy.

The least frequently recalled item on the list (38%) pertained to anger management ('When you are steamed') which might not have been a focus unless the FN thought that anger was an issue for that client. Similarly 'Daycare: a parent's checklist' (55%) might have received less emphasis unless it was clear that the client was planning childcare in the near future. Alternatively it could have been presented by their FN but the client may not have paid such close attention, thinking it not so relevant to their own circumstances.

Figure 4.2 - Clients' ratings of the FNP materials on a 1 to 10 scale (N=237)

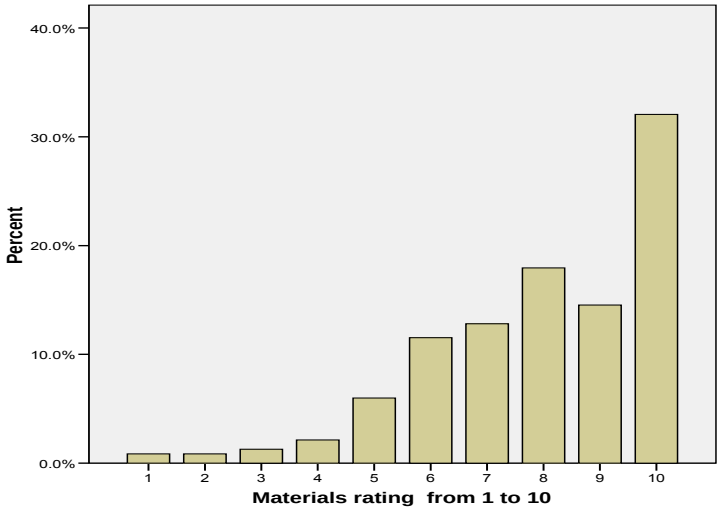


Table 4.2 - Clients' recall of specific FNP materials that are commonly recommended for use during infancy (N=244)

Infancy material	N Yes	% Yes
Keep your baby safe	235	96
Keep you baby smoke free	225	92
Mum's Memo	204	84
Dad's Days	202	83
When it's time to call the doctor	193	79
Lullaby and goodnight	185	76
Preparing for my baby's checkups	185	76
Ages and Stages Questionnaire	179	73
Smart Choices	177	73
Back to sleep - and tummy time too!	164	67
Verbal Abuse Hurts	163	67
Nurturing children wheel	144	59
Equality Wheel	139	57
Daycare: a parent's checklist	133	55
When you are steamed	92	38

B. Family nurses' views on infancy materials

The way that the materials are perceived by clients will depend to a certain extent on how enthusiastically they are presented by the FNs. Responding to a questionnaire FNs (N=44) were asked to rate a list of infancy materials on a scale from 1 to 10, 1 indicating that they were not useful and 10 that they were very useful. Generally the FNs responded that all the infancy materials listed proved very useful, particularly those concerned with the maternal role such as infant cues and the Partners in Parenting Education (PIPE) activities, designed to help mothers and fathers to understand how their infant is communicating and then respond appropriately and playfully (see Table 4.3, items 1, 2). They also noted that the Ages and Stages questionnaire proved useful, documenting overall development at 4 months and socio-emotional development at 6 months and the Hospital Anxiety and Depression Scale proved very useful in relation to maternal mental health status. Those materials perceived as less useful were related to life-course development, such as contraception or Smart Choices.

In open ended comments several FNs mentioned that the US materials on weaning were outdated, limited and needed to be supplemented. There was a difference in opinion as to appropriate timing, *"some of the materials need to be earlier i.e. weaning"; "weaning… came too early for a British client group"*. The scenarios in the Smart Choices materials were thought to be old-fashioned, too American and inappropriate in the context of the British benefit system and the different employment incentives it offers, *"The (UK) benefit system does not encourage employment or assistance.*" In fact a substantial amount of work has been conducted by the central team to develop more UK specific and up to date materials for many of the infancy topics and these are being used by the sites in subsequent waves of the programme in England.

Table 4.3 - Family Nurses' perceptions of the usefulness of infancy materials. Mean ratings on a scale from 1 (not useful) to 10 (very useful)

	Infancy materials	Mean
1	Infant cues/understanding your baby	9.1
2	Partners in Parenting Education (PIPE)	8.6
3	Ages and Stages Developmental Questionnaire (ASQ)	8.2
4	Ages and Stages Socio-emotional Questionnaire (ASQ-SE)	8.2
5	Hospital Anxiety and Depression Scale (HADS)	7.9
6	Relationship materials	7.0
7	Maternal health materials	6.7
8	Health and Safety materials	6.6
9	Nutrition and infant feeding materials	6.5
10	Diet and exercise materials	5.8
11	Contraception and family planning materials	5.9
12	NCAST teaching scales	5.4
13	Smart choices	3.8

C. Family nurses' ratings of client involvement in visits

Each time a home visit is made the FN notes down on the home visit encounter form her estimation of the extent to which the client was involved in the visit, their understanding of the materials and whether they indicated any conflict or disagreement with the materials, on scales from 1 to 5. If involvement is low or understanding appears low then this might indicate that the client is less favourably inclined towards the programme overall, as would overt disagreements about the content of what was being discussed.

For both pregnancy and infancy visits client involvement was generally high (mean scores 4.7 and 4.6 respectively) as was their understanding in both phases of programme delivery (mean 4.5 for both) with generally low levels of conflict with the materials (mean 1.2 for both (see Table 4.4). There were some variations between sites, with site 2 rating their clients as having the highest level of involvement on average, almost at the top of the scale (mean = 4.9) while the lowest rating was in site 8 (mean = 4.4; see Table 4.4).

The pattern was the same in infancy, site 2 again the highest (4.9) and site 8 the lowest (4.3) mean scores. Site differences for understanding of the materials followed the same pattern. This might reflect either a generally positive and optimistic perception for the FNs in site 2 and a more realistic one in site 8, or it could reflect differences in programme delivery, and this warrants further investigation.

Table 4.4 - Average ratings of client involvement in visits, their understanding of and conflict with materials in pregnancy and infancy for those clients with infants, by site. Ratings on a scale from 1 to 5.

Site	N	Pregnancy			N	Infancy		
		Involve-ment	Under-standing	Conflict		Involve-ment	Under-standing	Conflict
1	109	4.6	4.2	1.3	86	4.3	4.2	1.2
2	110	4.9	4.8	1.1	96	4.9	4.9	1.0
3	188	4.7	4.4	1.4	141	4.7	4.4	1.4
4	151	4.7	4.5	1.1	122	4.7	4.6	1.1
5	115	4.8	4.6	1.1	98	4.8	4.6	1.0
6	98	4.7	4.5	1.2	78	4.5	4.4	1.4
7	107	4.5	4.4	1.1	90	4.5	4.5	1.2
8	128	4.4	4.3	1.3	116	4.3	4.3	1.2
9	128	4.6	4.4	1.1	112	4.5	4.4	1.1
10	116	4.8	4.6	1.0	96	4.7	4.6	1.1
Total	**1250**	**4.7**	**4.5**	**1.2**	**1035**	**4.6**	**4.5**	**1.2**

Interestingly the FN ratings of those clients who remained active differed from leavers. Those still active had significantly higher involvement than leavers both during pregnancy ($t = 4.16$, $p<0.000$) and infancy ($t = 6.60$, $p<0.000$; see Table 4.5). Those who stayed could also be differentiated in terms of their higher average understanding in both pregnancy and infancy (pregnancy $t = 3.71$, $p<0.000$; infancy $t = 4.37$, $p<0.000$) and their lower average conflict with the materials in each phase (pregnancy $t = 3.08$, $p<0.01$; infancy $t = 5.52$, $p<0.000$).

Table 4.5 - FN ratings of client behaviour during home visits, comparing those still active at the end of infancy with those who have left the programme

	Active N	mean	Leaver N	mean
*Client involvement, pregnancy	905	4.7	394	4.6
*Client understanding, pregnancy	905	4.5	394	4.4
*Client conflict with materials, pregnancy	905	1.1	394	1.2
*Client involvement, infancy	844	4.7	191	4.4
*Client understanding, infancy	844	4.5	191	4.3
*Client conflict with materials, infancy	844	1.1	191	1.3

* Active clients and leavers significantly different at $p<0.05$

D. Father involvement in visits

Overall, for those clients with infants (N=1250) husbands or partners were present for 22% of the visits that had been made during pregnancy (2220 out of 9270), and the mean proportion of visits for which the father or partner was present per client was 23% with a range from 0 to 100% (see Table 4.6). Just over half (636, 51%) of the clients had partner presence for at least one pregnancy visit while at the other end of the continuum for 53 (4%) the husband or partner was present for all of the pregnancy visits.

A total of 9236 infancy visits were made to all those clients whose infant was at least 12 months old (N=712) and fathers were present for 2213 of those (24%). Calculated at the client level, fathers were present on average for 19% of infancy visits (see Table 4.6) and there was no father presence at all for 43% of them, including the 13% who left the programme during pregnancy. Considering only those clients who were still in the programme at the end of infancy (N=467) the rate of father presence was slightly higher at 24% on average and three quarters had father presence for at least one visit during infancy.

Table 4.6 - Presence of fathers / partners at visits in pregnancy and infancy

	N	Mean (range) visits father present	Mean % (range) visits father present	N (%) Father not present for any visits
Pregnancy, for all clients who have delivered their infant	1250	1.8 (0-14)	23 (0-100)	614 (49)
Pregnancy, for all clients who have delivered and who stayed with FNP through pregnancy	1080	1.9 (0-14)	23 (0-100)	503 (47)
Infancy, for all enrolled clients whose infant has reached 12 months	712	3.1 (0-29)	19 (0-100)	305 (43)
Infancy for all enrolled clients whose infant has reached 12 months and who stayed with FNP through infancy	467	4.3 (0-29)	24 (0-100)	117 (25)

The ratings that FNs made of father involvement were on average lower than those for mothers. Statistical comparisons of mother and partner ratings were carried out using paired t-tests so that the difference (if any) between specific pairs of parents was examined. Given that this is a sub-set of all clients (N=634/1250 in pregnancy; N=698/1035 in infancy) the means described below are not necessarily exactly identical to those for the whole group of clients given in Table 4.4. Partner involvement was significantly lower than that of the mothers with a mean of 3.9 in pregnancy (mothers 4.7, $t = 20.4$, $p<0.001$) and 3.8 in infancy (mothers 4.7, $t = 24.14$, $p<0.001$). Fathers' understanding was judged to be at a similar level during pregnancy and infancy (mean 4.1) and at both time points this was significantly lower than that of the mothers (pregnancy: mothers 4.5, $t = 12.5$, $p<0.001$; infancy: mothers 4.6 , $t = 14.6$, $p<0.001$). There was not a significant different between mothers and fathers for conflict with the materials during pregnancy or infancy (pregnancy: fathers 1.2, mothers 1.2, $t = 0.9$, n.s.; infancy: fathers 1.2, mothers 1.1, $t = 1.7$, $p<0.10$).

As was found for clients, differences could be identified between leavers and active clients for their partners' understanding during pregnancy ($t = 2.56$, $p<0.05$) and their involvement, understanding and conflict in infancy (respectively: $t = 2.38$, $p<0.05$; $t = 2.38$, $p<0.05$; $t = 3.65$, $p<0.000$) (see Table 4.8). Thus ongoing lower involvement of both mothers and their partners is worth attending to as an indicator of the possibility that they might in the future leave the programme.

Table 4.7 - Family Nurse ratings of partner involvement in visits, their understanding of and conflict with materials in pregnancy and infancy for those clients with infants, by site. Ratings on a scale from 1 to 5.

Site	N	Pregnancy			N	Infancy		
		Involve-ment	Under-standing	Conflict		Involve-ment	Under-standing	Conflict
1	66	3.8	3.5	1.5	67	3.7	3.5	1.2
2	68	4.4	4.4	1.1	77	4.3	4.6	1.0
3	103	4.0	3.8	1.3	96	3.7	3.9	1.3
4	74	3.6	4.1	1.1	84	3.7	4.0	1.1
5	58	3.8	4.3	1.0	66	4.0	4.4	1.0
6	61	3.9	4.2	1.2	65	3.8	4.1	1.4
7	60	3.9	4.1	1.2	56	3.8	4.2	1.3
8	39	3.7	3.9	1.2	54	3.5	3.6	1.1
9	46	3.9	4.1	1,1	64	3.7	3.8	1.1
10	59	3.5	4.4	1.1	69	3.5	4.4	1.1
Total	**634**	**3.9**	**4.1**	**1.2**	**698**	**3.8**	**4.1**	**1.2**

Table 4.8 - FN ratings of partners, comparing those still active at the end of infancy with those who have left the programme

	Active N	mean	Leaver N	mean
Partner involvement, pregnancy	493	3.9	162	3.8
*Partner understanding, pregnancy	492	4.1	162	3.9
Partner conflict with materials, pregnancy	492	1.2	162	1.3
*Partner involvement, infancy	609	3.8	89	3.5
*Partner understanding, infancy	608	4.1	89	3.8
*Partner conflict with materials, infancy	608	1.1	89	1.3

* Partners of active clients and partners of leavers significantly different at $p<0.05$

Conclusions

The material in this chapter mainly addressed the question of the acceptability of FNP during infancy, by looking at what clients recalled of their visits, by how they rated their FN and the materials, by the extent to which fathers were involved and how this compared with pregnancy, by FNs' judgements about how involved they were in visits and finally drawing on reasons that were given for leaving FNP during the infancy phase. The clients were overwhelmingly positive about their FNs. When asked in a general sense, using ratings, they were as positive about the FNs as they had been in pregnancy. In addition they were almost as positive about the materials as they were about their FN. Given more detailed questions from the Nurse-Client Relationship Inventory they again made very positive judgements about the FNs, their level of support and understanding of the client and their capacity to help the client to be positive and independent. Thus they appear to have maintained from pregnancy through infancy the high regard for both the programme and the professionals delivering it.

Given a list of some of the infancy materials, they recalled the majority of them and in particular those related to child safety, child health care, parenting (such as singing lullabies) and child development. More information about their reactions to the visits and the materials used came from the home visit encounter forms, on which FNs record on five point scales the level of involvement in, understanding of and conflict with the materials. These ratings were generally high for understanding and involvement and low for conflict. However it was interesting to note that these behaviours as rated in pregnancy (or infancy) could predict subsequent departure from the programme. Thus close attention to any changes in these ratings might be useful as a warning sign that the client may be thinking about leaving.

A further indication of the acceptability of FNP was the level to which fathers were present at visits; during pregnancy for just over half the clients their partner was present for at least one visit, rising to 57% in infancy which is high compared to their general involvement in other services for young children. Looking at those clients who were still with FNP at the time of their child's first birthday, the father or partner had been present at least once for three quarters of them. If clients did not find the programme acceptable they would very likely say this to their partner, who would then think it not worth his time either. Since father involvement was good it suggests the opposite. In addition the FNs rated the level of understanding shown by fathers to be equal to that of mothers, though their involvement was slightly lower.

Chapter 5 - Delivery of FNP in infancy

A. Family nurses' views on FNP delivery in infancy

The FNs were asked about what they thought about working with clients during the infancy phase, including any organisational factors that enhanced or impeded their delivery of the programme, how the clients engaged during the infancy phase, and whether or not they could identify progress. In each case they were provided with a list of potential points, to be rated on a 1 to 10 scale, and were also given the opportunity to indicate further points that had not been included.

Factors enhancing or limiting effective delivery

They were asked at two time points (time 1 when about half of their clients had infants, N=44 responses; time 2 when all their clients had infants, some beyond 12 months of age, N=29 responses) about factors that might lead to enhanced delivery of the programme. Using paired t-tests, it was found that responses did not differ substantially between the two times. The majority endorsed the importance of a good, supportive team both times the question was posed (see Table 5.1, items 1 and 3) and being able to see the progress that their clients were making (items 2 and 4). They also considered that the strong supervisory component of the programme was important (item 5) as well as the ongoing process of learning and having time to become confident with the materials (items 6 and 7).

The majority also thought that the chance to meet up both with the central team and with staff from other FNP sites enhanced their performance (items 8 and 9). The importance of a supportive local system was also noted (items 10 and 11). In open ended comments they reinforced the importance of opportunities to communicate with teams in other sites as were supportive supervisors, project leads, project mangers and regular contact with supportive colleagues.

They did not appear to think that communicating with other FNs via the dedicated website was particularly useful, nor did they strongly endorse the use of reports during supervision although they considered that the supervision process was an important factor in ensuring successful delivery of the programme (see more discussion of the reports later in this chapter).

Table 5.1 - Factors that FN rate as helpful the successful delivery of FNP. Mean scores on a scale from 1 (never helpful) to 10 (often helpful) (N=44 and N=29)

	Possible helpful factors	Mean Time 1	Mean Time 2
1	Having a supportive team	8.8	8.6
2	Seeing the progress that FNP clients have made	8.5	8.6
3	Good team functioning	8.5	8.3
4	Clients who describe their achievements	8.4	8.1
5	Opportunity to access supervision	8.3	8.4
6	Ongoing opportunities for learning	7.8	8.1
7	Feeling confident about the materials	7.6	8.1
8	Meeting up with FNs from other sites	7.6	6.8
9	Opportunity to meet with the central team	6.9	-
10	Supportive manager	6.6	7.8
11	Organisation that appreciates what I do	6.3	7.7
12	Opportunity to communicate with other FNs on the website	5.3	4.1
13	Looking at monthly reports with supervisor	5.0	5.3

FNs were also asked (at time 1 only) about barriers to delivering FNP effectively. The major factors that were thought to be barriers were practical, such as the amount of time available, especially when they had to factor in learning new materials, the administrative activities both of FNP and importantly non-FNP and therefore presumably NHS related administration, and the lack of adequate administrative support for their work, reflecting ratings pertaining to factors that would increase dosage summarised in Table 5.2 (see items 1 to 4 and 7).

Table 5.2 - Factors that FNs rate as potential barriers to effective delivery of FNP. Mean scores on a scale from 1 (never a barrier) to 10 (often a barrier) (N=44)

	Possible barriers	Mean
1	Amount of time in the week available for visits required	7.4
2	New materials to learn about	6.6
3	Demands of FNP administrative work	6.3
4	Demands of non-FNP administrative work	6.2
5	Visits cancelled by clients	5.2
6	Meetings with other professionals	4.8
7	Administrative support (e.g. IT, photocopying)	4.6
8	Resources needed such as baby weighing scales, laptops, toys and stamps	4.4
9	Local organizational demands for participation in non-FNP activities	4.1
10	Office space	4.1
11	Isolated from other team members	3.3
12	Team functioning	2.9

FNs considered that cancellations by clients did prevent effective delivery to a certain extent, contributing in the context of a job that was restricted by time issues and many competing, and possibly unnecessary administrative demands. In open ended responses they remarked that they did not have enough time to deliver the programme well because time had to be spent on training, note-making, writing referral letters, and promoting the FNP to commissioners. They also felt that their caseload was too high. Those whose teams were spread out rather than located together felt isolated and that they lacked support and opportunities for exchanging ideas.

Client engagement

Client engagement in infancy was generally considered at both time points to have improved somewhat compared to pregnancy in terms of their enthusiasm and responsiveness though mean scores were only just above the mid-point. For instance on a scale from 1 (never observed) to 10 (often notice this happening) the mean score for the 44 FNs who responded at time 1 was 6.2 for clients expressing more enthusiasm and 6.1 for clients being more responsive since their baby was born, and 6.0 at time 2 for the 29 who responded (see Table 5.3, items 1 and 2).

However it was almost as frequently observed that they were less interested in reading materials or keeping up their file (see Table 5.3, item 4, scores of 5.6 and 5.3 respectively) and similarly the item suggesting that clients took more interest in materials after their baby's birth was not endorsed strongly, although the mean did increase at the second administration, when infants were older (item 9, scores of 4.3 and 4.8 respectively). There was a mixed response to questions concerning the role of other family members now that the baby was born. The average response was just above the mid-point for family members being productively involved in visits (items 5 and 6, mean scores 5.5 out of 10) however it was as likely that FNs noted the presence of family members getting in the way of delivering FNP (item 3, mean score 5.6).

They noted that early on in infancy clients were tired and throughout infancy were busy, less eager, found it difficult to focus on the programme and were most interested in immediately relevant materials. They also noted that clients who had given up smoking in pregnancy often returned to it (see also Chapter 8). While the difference was not significant, the trend was for it to be more likely that clients would be back at work making visits difficult by the end of infancy (item 11).

Table 5.3 - FN perceptions of client involvement in infancy. Mean scores on a rating scale from 1 (never notice) to 10 (often notice) (N=44 and 29)

	Client involvement in infancy	Mean time 1	Mean time 2
1	The client and baby are doing well so there is more enthusiasm about the benefits of the programme	6.2	6.0
2	The client is more responsive to you now that her baby is born	6.1	6.0
3	The presence of other family members gets in the way of FNP activities, they have strong views about infant care	5.6	-
4	The client is not interested in reading or keeping her file now the baby is here	5.6	5.3
5	There is more involvement from the extended family now the baby is born, and they are more often present at visits	5.5	5.1
6	The presence of other family members is productive, they support the FNP messages about caring for the infant	5.5	-
7	The client is out more and cancels/postpones appointments more often	5.4	6.0
8	The client is tired from being up in the night and can't concentrate during visits	4.6	-
9	Now that the baby has arrived the client takes much more interest in the materials, and completes more worksheets	4.3	4.8
10	The client and baby are so well supported that they express less enthusiasm about the programme	4.2	3.5
11	The client is back at work or college so arranging visits is more harder	3.8	5.7

Client progress

There was agreement that the longer the FN had been visiting a client the easier it was to discuss difficult topics (see Table 5.4, item 1), that clients were seen to be flourishing as mothers, learning to play with their babies, achieving success and that FNs had helped many to overcome problems (items 2, 3, 4 and 5). These judgements remained stable across the two time points indicating that engagement and progress was being seen from early to late infancy to a similar extent, there were new things to learn and clients were not becoming 'jaded'.

Few of the FNs reported that they had observed clients resisting FNP because they were struggling with their maternal role in the earlier stages of infancy (item 7). However a slightly different question posed at time 2, when more clients had older infants (item 8), indicated that some mothers were struggling more once baby's became more independent. At neither time point did many FNs indicate that many clients were ready to move on without FNP (mean score 2.7) although when clients left the programme (Chapter 3) it was frequently given as a reason for leaving.

Table 5.4 - FN perceptions of client progress in infancy. Mean ratings on a scale from 1 (never notice) to 10 (often notice) (N=44 and 29)

	Evidence of client progress	Mean time 1	Mean time 2
1	You have been visiting the client for some time and the relationship is now close, so that you can discuss almost anything with her	8.1	8.4
2	The client has learnt how to play with her baby and wants to continue to learn	7.6	7.3
3	The client is flourishing as a mother and the FNP visits allow her to express this achievement	7.5	7.1
4	The client has achieved some success and sees the value of FNP	7.3	7.4
5	You have helped the client to overcome a significant problem in her life	7.3	7.7
6	You have been visiting for some time now and the client suggests that they can now manage, they have taken in your messages	2.7	2.7
7	The client is struggling as a mother and seeing you reminds her of this	1.8	-
8	The client is struggling as a mother now that her child is more independent	-	4.7

B. The role of supervision

Additional questions covered the importance of supervision to the FNP work and ways that it might be improved. FNs were on the whole in agreement that their supervision was an effective way to provide space where they could reflect on and clarify issues arising from visits and developing with colleagues approaches to take (see Table 5.5, items 1 and 3). They were also in agreement that it allowed them to feel personally supported and provide a space for developing reflective skills and widening their understanding of clinical issues (items 2, 4 and 5) and for generally developing self awareness and learning (items 7 and 8). In addition it provided for most an important means of feeling that there was shared accountability for safeguarding issues (item 6). To a lesser extent, but still an important element of supervision for many FNs, supervision provided space to reflect on the theoretical underpinnings of the programme.

When asked the same questions, about how effective they were with their team, the supervisors were on the whole slightly more likely to say that they were more effective compared to the opinion of the FNs. They perceived that they had been most effective in sharing the safeguarding accountability role and in providing personal support, and agreed with the FNs on the effectiveness of providing space to reflect. They were more likely than FNs to indicate that they had been effective in providing learning, understanding of clinical cases, and understanding of the theoretical underpinnings of the FNP programme.

In general the average FN rating per item on the questionnaire, concerned with the effectiveness of supervision, was slightly lower than that made by the supervisors (see Table 5.5). Some FNs commented that they were pleased with their supervision, found it to be useful (even vital) and helpful in their development. Others, however, felt it needed to be clarified, was infrequent, rushed and a ‘paper exercise’, and that it was difficult when the supervisor was learning about the programme at the same time as the nurses, had poor listening skills or was seeking approval.

Table 5.5 - FN (N=44) and Supervisor (N=10) views of the effectiveness of supervision. Mean scores on a scale from 1 (not at all effective) to 10 (very effective)

	Supervision effectiveness	FN Mean	Super-visor Mean
1	Providing space to reflect on and clarify issues/events	8.1	8.1
2	Personal support	7.8	8.2
3	Agreeing approaches to take with specific clients	7.7	7.5
4	Developing reflective skills	7.1	7.3
5	Understanding of clinical cases	7.0	8.1
6	Shared accountability for safeguarding issues	6.9	8.3
7	Developing self awareness	6.8	7.4
8	Learning and understanding	6.6	8.1
9	Addressing organisational issues	6.5	7.1
10	Incorporating FNP theoretical model into everyday working practices	6.5	7.9
11	Developing specific skills e.g. motivational interviewing	6.0	7.3

FNs and supervisors were also asked if there were any changes that would make supervision more helpful. Both groups considered that they would benefit from more time to prepare for supervision (see Table 5.6, item 1) and both groups also noted that more involvement of the local psychologist would be useful (see Table 5.6, item 2). Making the supervision more structured was also a popular suggestion for both groups and interestingly the supervisors but not the FNs were of the opinion that supervision would be more effective if more time was spent reviewing the reports derived from the database containing the FNP forms (Table 5.6, item 7 and see next section and Appendix D for more information about the reports). Supervisors were more likely than FNs to indicate that they thought joint visits would enhance supervision (item 8).

Table 5.6 - Actions that would make supervision personally more helpful. Means on a scale from 1 (would not help me) to 10 (would make supervision much more helpful to me)

	Action	FN Mean	Super-visor Mean
1	Make time to be better prepared for supervision	6.1	7.1
2	Make more use of the local psychologist for group supervision	6.1	8.5
3	Make group supervision more structured	6.0	7.6
4	Spend more time in supervision on learning and skill development	5.9	6.8
5	More training for supervisors	5.5	-
6	Develop more trust in the team so that they can be more open in group supervision	4.5	5.5
7	Spend more time in 1-to1 supervision looking at reports to discuss fidelity with specific clients	4.3	8.1
8	Make more joint visits with the supervisor	4.3	6.9
9	Work harder on relationship building between Family Nurse and supervisor	3.8	6.7
10	Spend less time on supervision	3.4	2.0
11	More training for me to improve my understanding of why supervision is needed	3.4	-

C. Completion of forms

One of the ways in which the FNP programme differs from much of the previous clinical experience of the FNs and supervisors is that there is a great deal of record keeping. FNs are required to document what takes place at each visit and information is also collected in a structured manner about the client, from the beginning of programme delivery with regular updates. Forms cover maternal mental and physical health, their relationships, possible abuse, and health related behaviours such as smoking, use of alcohol or illicit drugs (see Appendix E for details of when forms are completed). Once the infants are born forms are also used to document developmental progress. Since some of the aims of the programme are related to enhancing client's opportunities for, or interest in, adding to their educational qualifications, or their employment, demographic details are also updated regularly.

The forms are designed not only to help the FNs to ask about and record such indicators as smoking or violent relationships in a consistent way and to gain ongoing consistent feedback about client progress; they also provide information that is integral to the supervision process. Reports of aspects of service delivery such as the balance of the content domains (described in Chapter 2) for any particular client, or for any particular FN, can be important in the supervision process and have been received monthly (see Appendix D for details of the monthly reports received by supervisors and section D of this chapter). Discussing why a client regularly has a substantial amount of time spent on family and friends for instance and relatively less on the maternal role may lead to a discussion between the FN and her supervisor about domestic violence issues and how these impact on the programme delivery.

However the forms need to be completed, and completed accurately, for them to be of ongoing use to the programme. In particular when they are used to chart change (for example smoking behaviour at intake and smoking at 36 weeks pregnancy, or smoking when infants are 12 months old) then all the relevant time points need to be present for change to be documented accurately.

That being said the absence of forms can also highlight issues about a client that are relevant to supervision; in particular if the 'relationship assessment' forms are consistently absent for a client it might indicate that the FN has not been able to talk to that client without her partner present, and that this may well be due to a concern about a coercive or abusive situation. Alternatively if one FN in the team consistently misses the 'health habits' forms she may not be comfortable enquiring about substance use, considering that this will have a negative impact on her relationship with clients. Thus supervisors regularly receive reports not only of the content of the visits and issues about dosage but also about missing forms.

The rates of completion of all forms are given in Table 5.7 and it appears that during pregnancy, even at intake there is only information recorded about relationships for 80% of clients, while slightly more have information about smoking, alcohol and other drug use, however given that one cannot document change unless the first stage is recorded that rate (88%) is low. The lowered opportunity to document change in both health habits and relationships is indicated by the poor completion rates at 36 weeks gestation.

Completion improves at the birth of an infant, but one has to wonder why that basic information - the baby's weight, weeks gestation, gender and so forth, has not been collected for every client. From birth onwards the rate of form completion drops markedly so that by the time infants are one year old the rate is only just over half for maternal health habits and infant health. The distribution of missing forms was not even across the 10 sites (see Table 5.8). Site 8 stands out as having the lowest percent complete across the age span while site 3 is consistently above the average rate.

Table 5.7 - Completion of forms, taking into account whether or not they have left FNP and their current stage of pregnancy or infancy

When due	Form	N Due	N completed	%
Visit 1	005 Maternal health, intake	1304	1176	90.2
Visit 2	010 Demographics, intake	1288	1182	91.8
Visit 3-4	006 #1 Health habits, intake	1270	1113	87.6
Visit 3-4	007 Relationships, intake	1270	1027	80.9
36 weeks	006 #2 Health habits, mother	1226	942	76.8
36 weeks	008 Relationships	1226	859	70.1
Birth	012 Infant birth form	1071	1008	94.1
6 weeks	012A Infant health care	1025	902	88.0
6 months	011 #1 Demographics update	903	709	78.5
6 months	013 #1 Infant health care	903	660	73.1
12 months	006 #3, Health habits, mother	460	241	52.4
12 months	009 Relationships	460	263	57.2
12 months	011 #2 Demographics update	460	279	60.7
12 months	013 #2 Infant health care	460	240	52.2

Table 5.8 - Percent of forms completed by site

Site	006 #1	007	006 #2	008	011 #1	013 #1	006 #3	009	011 #2	013 #2
1	89	85	79	87	68	60	53	46	56	50
2	91	77	76	67	84	87	48	56	59	58
3	86	84	76	95	90	87	77	72	83	71
4	83	77	77	75	83	77	44	58	59	60
5	89	92	76	71	72	72	64	65	61	61
6	96	90	83	93	81	84	60	65	62	49
7	93	93	81	89	90	82	40	53	51	41
8	79	67	70	54	58	38	22	31	42	27
9	93	93	83	89	77	83	61	64	64	46
10	83	61	70	59	80	75	56	61	67	50
Total	**88**	**81**	**77**	**70**	**79**	**73**	**52**	**57**	**61**	**52**

Table 5.9 - Rate at which forms needed correction

Form	Total N in database	N sent for correction	%
001 Home Visit	25296	508	2.0
004/4A Activity Status	1617	12	0.7
005 Maternal health	1195	39	3.3
006 Health Habits	2403	21	0.9
007 Relationships, intake	1044	14	1.3
008 Relationships, 36 weeks	875	7	0.8
009 Relationships, 12 months	341	2	0.6
010 Demographics, intake	1198	153	12.8
011 Demographics update	1094	12	1.1
012 Infant birth	1008	36	3.6
012A Infant 6 weeks	926	18	1.9
013 Infant health care 6 months	909	11	1.2

Table 5.10 - Extent of missing content in Home Visit Encounter forms

Home visit characteristic	N Missing	% (of 25,296 forms)
Duration of visit	21	0.1
Location of visit	25	0.1
Client's involvement	137	0.5
Client's Conflict with materials	143	0.6
Client's understanding	145	0.6
Domain Personal Health	127	0.5
Domain Environmental Health	359	1.4
Domain Life Course	433	1.7
Domain Maternal Role	122	0.5
Domain Family and Friends	238	0.9

In the database system that ended in March 2009 the database administrator checked each for inconsistencies and missing information before entering it into the main database. If there were queries then either telephone contact with the site administrator clarified information or the form was returned to the site administrator for checking and resubmission. The proportion returned was variable (see Table 5.9), highest for the initial demographics forms mainly due to inadequate maternal educational qualifications information.

A minority of the home visit forms also had missing information (see Table 5.10) which will limit the accuracy of information about delivering with fidelity. This will become more important as data are entered into the newly created web-based system.

D. The role of reports in supervision

Each month supervisors receive reports based on the forms that have been entered into a database (see Appendix D for details of the content of the reports). They were asked how useful these had been in their supervision.

Overall they considered the reports on completed forms and visits per FN for each client the most useful (see Table 5.11) with none rating these lower than 7. Visit length and dosage were not quite so useful while summary charts showing the proportion of clients per site with their dosage (above or below the expected level) and attrition information less useful in their ongoing supervision with FNs. The supervisors' ratings of the frequency with which reports were used suggests that the graphic representations of dosage and attrition were not so often used in supervision.

They were then asked to say how confident they were about interpreting and using each of the reports. They reported high levels of confidence in using all the reports, with mean scores on a scale from 1 to 10 of 8.5 or greater for all the reports apart from the bar charts (mean 7.8) indicating the distribution of the proportion of clients with different levels of dosage, possibly surprising since the supervisors had specifically requested that the information be provided in this way.

Supervisors were further asked to indicate what the reaction was of their team to the reports (from 1 indicating negative to 10 representing positive) and reactions were somewhat positive, but mean ratings were lower than had been made of the usefulness of the reports (see Table 5.12) with ratings as low as 3 for reactions to the bar charts and the details about attrition.

Table 5.11 - Supervisors' views on the usefulness of monthly reports for their work, and the frequency of use on scales from 1 (not useful / hardly ever used) to 10 (very useful / almost always used)

Reports	Mean usefulness	Mean use
Report 1, dates of completed forms	9.1	9.0
Report 1, overdue forms	8.6	9.0
Report 2, visit length and content, summary of all visits completed by FN	8.1	8.3
Report 2, visit length and content by FN	8.2	8.3
Report 6, visits completed and attempted, past 3 months	8.6	8.4
Frequency of visits (dosage), individual site and all sites summary	8.0	7.3
Bar chart percentage of visits received	7.5	6.2
Attrition, your site and all sites, by reason	6.9	6.2
Attrition broken down, pregnancy and infancy	7.1	6.2

Finally supervisors were asked if using the reports had led, in their view, to improvements in programme delivery and these mean scores were mainly in the mid range (see Table 5.12), with some rating reports as low as 2 or 3 on the scale. Thus overall the supervisors were confident in how to use the reports, and found that they did assist in the supervision process, but the FNs apparently did not always react positively to their content, and their use did not necessarily always lead to improvements in programme quality.

Table 5.12 - Supervisors' views on reactions of the team to reports and extent to which monthly reports lead to improvement, on scales from 1 (almost always negative/not related to improvement) to 10 (almost always positive/almost always leads to improvement)

Reports	Mean Team reaction	Mean improvement
Report 1, dates of completed forms	6.4	7.6
Report 1, overdue forms	6.2	7.4
Report 2, visit length and content, summary of all visits completed by nurse	6.6	6.7
Report 2, visit length and content by nurse	6.8	6.7
Report 6, visits completed and attempted, past 3 months	7.0	6.3
Frequency of visits (dosage), your site and all sites summary	6.7	5.9
Bar chart percentage of visits received	6.2	6.2
Attrition, your site and all sites, by reason	6.0	5.1
Attrition broken down, pregnancy and infancy	6.0	5.1

Interestingly, there did not appear to be a close relationship between the supervisor's opinion about the reports, describing among other things the extent to which the relevant forms had been completed, and the overall performance of their site in that respect. Their confidence in using and judgement of the usefulness of the reports may reflect personal style rather than being based on whether or not the forms seem to be of some benefit, or can be used successfully in supervision. This will be investigated further in qualitative interviews in subsequent research.

E. Work satisfaction

The FNs and the supervisors were asked a series of questions about their job satisfaction. Overall the FNs generally used the whole range of satisfaction ratings from 1 (low) to 7 (high) more so that the supervisors suggesting that, for some, the role was proving more challenging that they perhaps had anticipated and their final rating of overall satisfaction with their job was lower (5.5 vs. 6.3, see Table 5.13).

For the FNs, they were most satisfied with their work with families and being in a high profile role as part of a national pilot, at the 'cutting edge' of their field. Supervisors were also very satisfied with being part of a pilot and they also gave the highest satisfaction ratings to their career opportunities and the impact that FNP could have compared to their previous role. FNs (and supervisors) were satisfied with the possibilities for skill development but FNs were less satisfied with their career opportunities. For them unless they moved on to be a supervisor in another location there was no obvious upward trajectory. This could lead them to leave the job if other opportunities came up locally:

> *"I did thoroughly enjoy doing the job (and I was good at it) but I think the main reason was about promotion, there aren't that many jobs that come up and there was quite a lot of talk about banding."*

Table 5.13 - Work satisfaction of Family Nurses (N=44) and Supervisors (N=10) on scales from 1 (low) to 7 (High)

	FN mean	Range	Supervisor Mean	Range
Work with families	6.3	4-7	6.2	2-7
Being part of a national pilot	6.2	4-7	6.9	6-7
Impact of FNP compared to previous role	6.1	2-7	6.7	6-7
Skill Development	6.0	2-7	6.4	5-7
Career Opportunities	4.9	1-7	6.6	6-7
Employment conditions	4.4	1-7	5.5	2-7
Emotional demands of the work	4.3	1-7	5.2	3-7
Overall satisfaction	5.5	2-7	6.3	5-7

For some the pressure of being in a new role, and one that was being closely scrutinised as part of a national pilot was stressful and this led to some FN departures. While this is related more to being part of a testing phase than about the actual programme, it does reflect the fact that they were aware that FNP was being 'sold' as something that was evidence based and successful, so they 'had' to make it work in England, and they were being asked to work to specific targets which might have been applied in too rigorous a manner in this first learning phase of implementing FNP:

> *"I don't think we knew what we were going to be doing really, and I think that along the line people have lost sight of the fact it was actually a pilot, and by hook or by crook it was meant to work. .. ….. You were made to feel guilty that your visits weren't an hour or an hour and a half long. Sometimes when we had full case-loads, to actually get in all those visits a week, you could only do an hour with the girls because it was too much otherwise."*

While the new role and the close team relationships were often perceived to be important reasons to taking up the FNP work, most of the FNs and supervisors had not previously been involved in trying to recruit people to work with or documenting closely whether or not their clients continued to receive a service. They could find this additional responsibility stressful, particularly when they were also becoming familiar with a multitude of new materials:

"I really miss that, the intensity [but] it was very stressful to recruit, retain and work with some of the girls who are very hard to reach….it took over my life."

Conclusions

This chapter deals mainly with aspects of programme delivery, looking at whether there is consistency of delivery between sites and indicators of what would improve service delivery.

The importance of the team to good delivery was highlighted, the opportunity for ongoing learning and also seeing their clients achieve success. Both the FNs and the supervisors noted the importance of supervision to successful delivery, providing a space for reflection and joint planning. However they were less sanguine about the monthly reports. They liked to go over the content of the visits (from Chapter 2 it can be seen that there is delivery close to the fidelity stretch objectives). Perhaps understandably since the information could be interpreted as negative, they were less positive about the reports that focussed on client attrition and these were used less often by supervisors. Possibly as the sites move into a new phase in 2009, submitting forms to a web-based data system so that reports can be generated as required, they may be more receptive to them.

Nevertheless they will need to address one of the most basic elements of programme delivery; completing and submitting all the specially designed forms in an accurate and timely manner. Even at the outset a substantial minority of the FNs are not collecting information from their clients systematically about substance use or abuse and violent or abusive relationships. By the time the infants of clients are 12 months old there are vast differences in the extent to which information is collected about smoking, alcohol use and use of other drugs, as high as 77% in some sites and as low as 22% in others. The gap in the extent to which data have been collected about relationships at 12 months is similar, ranging from 72% completeness to 31%. While there may be some reluctance to discuss drug use or smoking and barriers to finding out about relationships if partners are present, it is obvious that some teams have been able to collect this for most of their clients. This suggests that more support may be needed to help supervisors to develop strategies to deal with those FNs who resist data collection, so that they can understand that change over time is something that they should be monitoring for each and every one of their clients. It is possible that in some sites a culture develops that the forms are not that important. If one site can complete the form pertaining to such a non-controversial topic as infant health care at 6 months for 87% of clients there is really no excuse for a rate of completion of 38% elsewhere. Whether or not it is the supervisor, the administrator, or some other individual who keeps track of the way that information about the work is being collected, it seems that this is an important aspect of ensuring effective programme delivery.

Finally the staff providing this new and exciting service have some underlying ambivalence about their long-term future. Taking part in a pilot can be invigorating but also anxiety provoking with both scrutiny from outside and uncertainty about the future. FNP does not fit seamlessly into the pattern of development of services for children and families based on a multi-disciplinary Children's Centre model. It can co-exist with these but it is essentially a unique specialist service. This means that FNP staff tend to become detached from career structures and pathways that are generally available to them in their profession. The experience of these first recruits was that they constructed FNP as offering such a pathway, and then found it didn't really. Is it a dead-end for health visitors and midwives? Can it be a staging post in a career in community nursing and children's services? Its unique qualities mean that some thought will be needed into exactly what it offers as qualification and experience - and also what happens to those personnel who leave FNP. Where do they go and how is their experience valued by employers? The relationship between this nursing role and other specialties will need to be addressed in the long-term.

Chapter 6 - Support for Sustainability

This chapter examines factors that will make it more or less likely that FNP will become established in the English context, initially in the ten pilot sites themselves. It looks at the degree to which FNP has already become embedded and gauges reasons why this has varied. The process provides indications for future practice to secure sustainable projects. The information in the chapter is based on examination of local documents, particularly Children and Young People's plans, and interviews with Commissioners and Project Leads.

A. Local acceptance of the FNP approach

It was evident from interviews with Commissioners that those in some sites were not completely convinced about the FNP approach. This is a surprising point, since all ten sites made bids to be a part of the FNP initial trial, and there was considerable competition for this funding. Sometimes the lack of conviction took the form of wondering if FNP would achieve outcomes in England comparable with the US experience:

> *"It needs to have very specific outcomes, related to both national requirements and local need. Lots of health policy, as you are probably well aware, is about why do we need to do this as opposed to something else. It has to be evidence-based, a national priority, but more importantly it has to be relevant to our local population here in -----. What will be interesting will be more local evaluation for how it worked in -----, with our local teams and population, so I would like to see that evaluation and what comes out of that."*

In other areas scepticism seemed to be built into relations with central government departments, which were not expected to be able to understand the difficulties of local delivery. A Commissioner complained of inconsistency in messages from London, with the central team saying one thing to FNs and another to managers:

> *"Trying to manage that is quite difficult because we are trying to hold a steady ship, to mainstream and embed a service, and it feels like sometimes they* [the central team] *are a bit out of touch with the reality of what it is like here trying to mainstream a service. It has been very difficult."*

In a contrasting area there has been a willingness among commissioners to accept that research from the US provides some proof of the effectiveness of FNP. In this site the US research is cited frequently and the commissioners are less exercised about the need for local evidence of effectiveness. The nature of FNP as a long-term preventative programme has been successfully disseminated among and accepted by commissioners and partner agencies and this has been important in their decision to continue funding for the project. There is also a clear commitment in this area to securing joint funding from partner organisations, like youth offending, education and social services, on the premise that long-term benefits for children will impact on their remit too:

> *"Certainly, in all of our children and young people inter-agency planning the FNP is in every detail...It does have a high profile in health and across the partnership…it is seen as a model of good practice."*

The Commissioner quoted above further explained that it was only if there was a good local commitment to FNP that partners could be persuaded to join in to support it:

"If you are seeing the long-term benefits, improved outcomes for children in schools, less involvement with criminal justice and probation - all the David Olds long-term trial results - isn't there a way for other people to buy into that? Because the benefits are going to be recognised on their watch, not just on health."

The FNP central team tried hard to develop an understanding of the FNP model among Commissioners, visiting regularly, holding central events, and being ready to trouble-shoot on occasions. The endeavour to generate and sustain enthusiasm for FNP among these stakeholders was well-placed - there is a direct relationship between this understanding and the willingness to sustain FNP in the area, e.g., the FNP service specification.

Commissioners who were committed to FNP all used the same kinds of phrases to describe the task their area faced in planning services:

"We have huge inequalities…"

"Our priority is reducing health inequalities…"

"Equality, prevention early intervention, narrowing the gap…"

There was concern among those less committed about the difficulty of providing the FNP service to every mother who might benefit from it. Commissioners have a role to ensure equity in the NHS and it is easier to be equitable by commissioning universal services. Several toyed with the idea of modifying FNP in the light of this need. In one area it was felt that working with 100 families over two years made the project difficult to justify in terms of cost. The service was perceived as exclusive:

"If we did FNP for 200 clients per year, 600 on it at one time, either pregnant or coming up to two, we would be using 40% of our total resource on 3% of the under 3 population."

Nevertheless this did not necessarily mean that the programme lacked support. This same commissioner, recognising the particular qualities of the programme and the difference that it might be able to make within a bigger picture, went on to say that despite the perceived high cost it had her support:

"It's a very intensive programme, its quite costly, you've got 100 clients being cared for by four practitioners but I still think it can be done and I think that if we are able to continue with the investment that we have at the moment which is about 150- 200 which is peanuts in the scheme of things really I think it could make a real difference."

Commissioning depends to a certain extent on identifying the unique role that FNP can play in the range of services designed to fit the progressive universalism agenda and this means that other professionals need to hear about the work. FNs are not in the best position to carry out descriptive advocacy of the programme into local sites, even though all of them have been called upon to do it. To avoid being branded as 'advantaged' or 'better' the understandable tendency is for them to make what they are doing sound more like what everyone else is doing, rather than to emphasise its specialist nature. Thus, when they explain that they have had a great deal of specialist training, the response of other health professionals has often been 'It's all right for you; I am expected to work with more families and with less training.' Overall the FNs were reluctant to take on this role. Some comments indicated that they felt this kind of outreach to other professionals, though probably essential if the FNP was to be maintained, detracted from proficient delivery of the programme. They are summed up well by this FN, who was interviewed because she left the job:

"The constant requests to do different things like presentations, and for the clients to go and meet people [to talk about FNP]; I found that very stressful to try and arrange and explain why. It was stressful for them and I didn't like doing that."

B. Factors for commissioners

While acceptance of the approach taken by FNP to support young vulnerable first-time mothers is important, it is also necessary to have evidence that the local area has the need for such a service. Some Commissioners mentioned that they did not know what the call for the FNP service actually was in their area:

"I think that the piece of work that is needed locally is to establish the level of need for this very high level service, when you put it into the context of everything else we commission across the whole partnership. There is a huge amount of investment in family support, parental support and early intervention programmes. So it is where this fits, where is the target group of mums we would hope to reach, how many would they be…and what is the size of team that would be needed to mainstream this service?"

Concerns about costs were less about the cost-per-head of the service (about which there was some detailed knowledge at the time of these interviews) and more about the grossed up cost of providing the service to everyone eligible if the service was to be 'rolled out'. Three sites where PCTs had recently been merged to form a single Trust were particularly exercised about levels of local need and the costs of an expanded service. One Commissioner noted:

"We still don't know how much is spent on health visitors. What seems to have happened over the years is that a lot of children's services have been funded by under spend…and because of the huge changes, with several PCTs becoming one, we are only just getting our heads around how things are provided."

In two areas these uncertainties led to a decision to continue support for FNP, in one they appeared to contribute to a weakening of enthusiasm for the intervention. They contributed to local wishes to modify the intervention if possible, to fit in with area circumstances. When respondents said that they would like to stretch the fidelity of the scheme, for it to work with a wider group of parents, to be delivered by family support workers, for the materials to be shared with children's centre teams, the underlying message was that this would make the funding go further:

"The drawback first of all is that FNP is about intensive home visiting, so they can only have a case load of 25, so that in itself is expensive. It is an expensive way of delivering. That way of working from a financial point of view would be unreasonable and unsustainable. It would not be good value for money."

Despite these doubts, the site of this Commissioner looks committed to sustaining the service. The next quotation comes from a Commissioner in a site that is committed already:

"One could have wondered if it [FNP] *was going to be cost effective and cause duplication, but it doesn't. It couldn't be a universal service, it is too costly and there isn't the need. You would be taking away some of the service from those that are really needy if you stretched it too thinly to get equity for everyone."*

The acceptability of the programme is a matter of interest to commissioners in PCTs and Local Authorities, since they are responsible for matching services to local need, and services which are not acceptable will not be meeting need. Vulnerable and young parents have proved difficult for existing childbirth and parenting services to reach. Research has

found that though many mothers, especially first time mothers, may report a good experience of services, younger women, those from lower socio-economic groups and minority ethnic groups express reservations. In more detailed studies of low users, particularly of parents and parents-to-be under 20, respondents have been resistant to receiving information about parenting. They have contested the idea that parenting skills can be taught, especially through books, and considered that written materials distributed for free to all parents were not written for them (Craig Ross Dawson, 1999; Moran et al. 1997). The PCT commissioners interviewed did not remark on these well-known difficulties in providing childbirth and parenting services to vulnerable and very young mothers. Commissioners from local authorities, however, did mention the difficulties of engaging this group in centre-based services for parents, like parenting classes at Children's Centres.

The main doubts expressed about FNP at its introduction were because of its American provenance - how would this go down with an English population? Commissioners have been quickly convinced that it was very acceptable to the practitioners:

> *"Everyone is extremely positive about it, the nurses are so committed and enthusiastic; they could sell it on their own."*

Concerns about the acceptability of the content to users and other matters to do with the delivery of the programme tend to be over-ridden by the desire for outcomes promised from the American experience:

> *"I hope the research will be able to demonstrate that it is what they* [Family Nurses] *are actually doing as well as who they are and their relationship with the client…But part of me doesn't actually care really - if it is achieving the outcomes."*

By the second year of the pilot study this had become the standard position for PCT commissioners.

From the research showing the difficulties of reaching mothers of all ages with childbirth and parenting services certain key principles have emerged, in particular the provision of a personalised service that allows women to express their needs and continuity of care, particularly through a key worker (Singh & Newburn, 2000). Commissioners are aware that FNP fulfils these two established priorities for an acceptable service:

> *"We have taken a very detailed consultation around our strategic intent going forward for the next five years… For families who have complex needs or social care needs one of the over-riding things is that they want services to be local and…some personalisation of those services so that they have got a key worker type person they can relate to and the FNP model fits that."*

But some note that since everyone might like a service of this quality, there are problems of equity when it can only be offered to limited number of families.

In some areas commissioners had received information based on the reports received by supervisors and expressed concerns about the level of missed appointments and the numbers of clients seen by the FNs. Although this concern was described in terms of the cost of the programme, poor take-up may also indicate something about its acceptability to clients:

> *"I had some concerns with the actual numbers of girls that were being seen, and of those numbers only 53% of appointments were being met. That means that 47% of appointments that have been costed into the programme haven't been met and I think that is high. Uptake is an issue really."*

Commissioners are required to produce a business case for the services they recommend to their boards. Central to these cases are value-for-money tests, which can be difficult to construct for preventive programmes with long-term intentions (discussed also in Chapter 7). In the case of FNP, as was noted in the previous section, long-term benefits apply beyond saved health costs to a whole range of social programmes and services. Several Health Commissioners felt they did not know yet whether the programme was good value because the first year of funding had come from the Department of Health, the programme was 'bedding down', and some said they were uncertain about outcomes. Thus their dilemma was that the programme is costly to deliver, and beneficial outcomes might not immediately be evident, and not all may be health outcomes:

> *"The drawback of the FNP is the cost of it, I'm not saying that there isn't an acknowledgment that it would be to invest to save costs further down the line but in the way budgets work, its not cost releasing efficiencies, we wouldn't get that tangible money back, so I think that is one of the things that we are thinking about not just for us but if I was working in a PCT that had a different financial climate it would make me very hesitant because it is very costly."*

But all observed that the types of outcomes identified by American studies would benefit social objectives beyond health, and it made sense for FNP services to be commissioned jointly with Children's Services Commissioners.

In awarding FNP to sites there was a requirement for collaboration between these two statutory agencies. Joint commissioning, rooted in a joint strategy and integrated working, makes sense for FNP, which addresses priorities of both PCTs and Children's Services like low achievement among children and the need to improve parenting. PCTs in all ten pilot areas claimed that they had solid partnerships with the local authority. It is hard to test such claims, because they are easy enough to make, and it is hard to describe exactly what a solid partnership is, except by its achievements.

What was clear was that the level of collaboration between the two varied from area to area. It was deeper where it had been working for a while, suggesting that trusting partnerships derive from experience. For example, in areas where there had been a requirement to work jointly to establish Sure Start Local Programmes, the statutory agencies had been collaborating on children's services since the nineties. The weaker partnerships were those which had not built this history - and one of the reasons may be that some did not have the experience with Sure Start programmes to build it upon. Where a relationship was less robust, for example, a local authority commissioner saw the future of FNP as entirely a matter for the PCT:

> *"There seems to be a commitment to carry on in some way, but I didn't really get a grasp of how they were going to run it in the future. It has been made very clear that for it to work the fidelity needs to be maintained."*

A concern for Commissioners from PCTs and local authorities was the impact of FNP on services in the area, whether it would de-stabilise other providers, divert activity from other services and so on. Collaboration between the agencies has become more important now since there are vehicles for universal health and children's services (Healthy Child Programme and Children's Centres for example) to which the targeted FNP needs to be linked in order to offer families the complete panoply of help. In the FNP model the usual factors which influence where services are placed - like geography and need - are supplemented by the demands of the team relationship.

The local scenario was made more complex by services that had been commissioned simultaneously with the arrival of FNP, and could see be seen as in competition with it. This could happen with Specialist Teenager Pregnancy advisers and midwives, but it was not inevitable, because these staff were working alongside FNs and collaborating with them in some sites. The difference between the two approaches was clarity from the leadership. It was apparent that the situation in an area where four PCTs had been merged into one unit had not aided clarity and interviews with field staff showed that confusion was affecting staff on the ground - for example, there had been a failure to consult with them about their own working relationships with staff from other agencies.

C. Facilitating delivering FNP alongside other services

Where there was a joint approach at the commissioning levels in local areas, where middle managers had experience of working together, and where there were relationships between FNs and others working with families, the identity of FNP had begun to crystallise. There is no reason why a distinctive service, offered by specialist nurses, should not co-exist alongside other health services for families. There are examples of specialist services purchased on their behalf like Portage for families where children have special needs. And specialist nursing services may work in the community - Macmillan Nurses, for example.

However, even when there appeared to be joint enthusiasm for becoming a pilot site for FNP, the process by which joint decisions are made is by no means well established. The PCT Manager in one area where support appears now to be weak described the application for funding as emerging from a telephone conversation she had with the Head of Children Care Services in the Local Authority, who said:

> *"Oh by the way, I have just come across this. Have you seen it yet? And I said I'd looked at it briefly and she said "I think we should try for this." And that prompted me to look at it in more detail - so it actually came through joint working that we applied."*

For her part the PCT Manager did what she describes as a 'quick trawl' through senior operational managers who were supportive *"because it would be moving us in the direction we have been looking to move in."* All pilot sites had to move with speed to apply for the FNP funding, and all described that as unsatisfactory, but in this area there does not appear to have been any multi-agency forum though which the proposal was passed. There was a question at the outset about the strength of the collaboration between the PCT and the Local Authority. Good relationships between individuals, even senior level, may not translate into integration at other levels.

It may be that the central team, which is responsible for maintaining the distinctive nature of the programme, will need to develop materials which reinforce the specialist nature of the scheme and convey this to other parties. In the pilot areas other health professionals, Children's Centre managers and staff, workers in social care in the voluntary and statutory sector all had trouble in imagining a service which was not integrated, did not share materials and had its own way of doing things. In many ways this is heartening, showing how far children's workers have come in their multi-disciplinary practices, but it will not work for FNP. In order for the FNP model to find a comfortable place, it needs to be presented in a clear way, to have advocates other than the Family Nurses to do the presenting, and to be configured in a variety of possible models. At the same time it needs to be 'owned' by other workers in the field despite the fact that they may not encounter an FN very often, because he or she is unlikely to participate in their networks. FNs could feel that they fell between stools; that they had a new a different role but that the local NHS/PCT systems were not really ready to deal with this, as noted by this FN who eventually left the programme:

"I think the problems that came were because of the changes that were going on within the rest of the PCT. Although we should have been treated 'differently' we couldn't be, we had to keep in line with everyone else, there were quite a lot of restrictions that we had to deal with."

At this stage in the pilot process there has been no time for FNs to develop anything more than a rudimentary working relationship with other workers in children's services, based on the long experience of midwives and health visitors with local authority and education workers. Some new models of how the FNP service in particular can fit in and relate to the wider range of preventative work with families are required, in order for commissioners and managers and staff to have a basis for discussion of what is workable in different areas. There will be more than one way of fitting this service into the local context.

There can also be professional rivalry, which may contribute both to clients leaving the programme and the FNs, as reported by one who was about to return to a health visiting role:

"I think there was a trigger event, there was one girl who had only missed one or two visits, she was in sheltered accommodation and I got a phone call from the manager there saying she wanted to stop, and in fact every girl who had been in the sheltered accommodation dropped out of the FNP. This one moved away and then got back in touch and said she wanted to rejoin the FNP. I felt stabbed in the back professionally by the warden at the sheltered accommodation, because they felt they were doing what we were doing and doubling up on a lot of things."

The discussion so far in most sites has tended to see FNP as a specialised service on the edge of the regular service set, because it is targeted. But this implies that families would be referred to it through some gateway (through CAF for example), which is clearly not appropriate for first time parents. It is easier to see where FNP might fit if instead it is understood as a central service, involved in the basic tasks of all services for families - reaching, supporting and helping children to fulfil their potential - but doing it in a specialised way.

A head of strategic commissioning for children and young people in a pilot area - where most respondents had thought in detail about where FNP fitted in - produced a diagram of an integrated service framework where FNP was a central feature of the offer, on a par with integrated services (probably offered via Children's Centres) and other support, often associated with schools:

"If you think of a skeleton, I think it is a spine of our whole body of service provision."

This model accepts that FNs may not be present in every Children's Centre, nor be available to work with every first time parent, vulnerable, young or otherwise. But the existence of the service makes manifest the need to reach these most vulnerable families, with this and other mechanisms.

D. Delivery within Children's Centres

FNP has been developing in the context of universal services - the health service aimed at children and called CHPP - the Child Health Promotion Programme - and Children's Centres, multi-functional sources of services for children and families, planned for every community in England. The latter have been in the process of being established since 2006, the emphasis at the start on centres in disadvantaged areas, with the widest 'offer' of services being available in such areas. The centres which were the first to be established developed from previous policy structures - family centres or Sure Start Local Programmes - which were set up in the poorest neighbourhoods in England.

This history means that the development of the Children's Centre network has been at different stages in the ten sites. In the Northern urban sites there has been a more established set of functioning, multi-agency bases, in the smaller southern sites there tend to be some developed centres with gaps in between. Indeed, in one large rural site some centres are only now being constructed. This variation in experience was reflected in interviews with children's centre managers. In some areas these personnel are responsible for as many as five centres - a situation which can provide a basis for links with FNs, who are unlikely to be working with caseloads from one centre catchment alone.

The contrast in experience is illustrated by the following quotes, the first from a Children's Centre manager who had been in post for 10 months at interview. She manages three centres and there is a FN working in this area. Asked what services are offered and who provides them she said:

> *"No one, there's just me really. I have a cleaner, a part-time admin from an agency and I run three Children's Centres. NCH* (Children's Voluntary Organisation) *are supporting me to deliver services but nothing has been set up yet. These are new centres. I would love health visitors and midwives to move in but there isn't the staffing."*

The second manager is also responsible for four centres, and has been in post for two years. There is a Family Nurse based at one of the centres with other staff, based in an open office with a mainstream midwife and a Sure Start midwife. This manager is a PCT employee and is very well informed about FNP. The FN attends the meeting of centre staff at the beginning of each week:

> *"She is part of the team. She fills us in at the team meeting on a Monday with where she is going to be and what she is going to be doing, how she is going to be contactable because obviously if any calls come through from clients or the team we know where she is going to be…She is part of the tea and coffee fund and puts a £1 in every week!"*

There is clearly a big contrast between these two positions, and some of the requirements for placing an FN in a Children's Centre are apparent: a centre needs to be established, needs to have space, needs to have a policy and system for sharing information, needs to understand the FN role and how it can be absorbed into the centre.

It is significant that the second manager has a health background and that the Children's Centres in this site have an excellent relationship with the PCT. All mothers who register a pregnancy *"go straight onto the database, so that we can start letting them know what is available such as aqua-natal, breastfeeding workshops..."* And GP records have now been added to this database - an exceptional piece of collaboration which will be envied by Children's Centre managers all over England. This does show what is possible, however, and this kind of information sharing may become more widespread as Children's Centres are a recognised feature of the health and social care landscape. If it does, it is easier to see where FNs would fit into the multi-agency team. The Manager here has a vision for integrated services on 'progressive universalism' lines:

> *"You have the FN picking up a proportion of young teenage parents that need a lot of involvement, you have got health visitors picking up families of all ages that need support and more intensive visiting - the ones that don't need that we can pick up quite easily at our level at the centre."*

This vision depends on collection and then sharing of reliable information. As we have seen, this site could boast a very high degree of information-sharing with Children's Centres by the health service. No other site reached this level. In another, where there is a fair degree of joint understanding and development (and for a period where the FN team was managed by a Children's Centre manager) a Family Support Manager noted:

> *"All of us Children's Centres need to work with them* [FNs]*; it depends if they have got families in the area…I just had a call recently about a family I have to go and meet through FNP, but I haven't had a list of who they are working with and I wouldn't know unless they contacted me."*

Links between Children's Centres and FNP were envisaged in all ten sites by local Commissioners. Local Authorities and PCTs have been encouraged to meet and work together in these settings. Previous research studies have demonstrated that multi-functional settings of this sort work best with health involvement, and, in particular, they offer a place for families who use FNP to go for further services, especially when their children are two. This meets a concern about FNP which was expressed by some PCT Commissioners:

> *"There is a question about what will happen next for these children? It is not an independent model, it's a very dependent model and I think there is going to be some difficulty in terms of expectations as time goes on."*

The Commissioner cited above saw the introduction of families to other support services as being an important part of the role of a Family Nurse. Another noted that FNP provides an additional worker for families with complex needs:

> *"For families who have…social care needs one of the overriding things is that they want services to be local and actually they want some personalisation of those services so that they have a key worker type person they can relate to, and again the FNP model fits that to a certain extent."*

Fitting FNP into local services via a key worker approach creates difficulties, however, because key workers liaise with one another, and the FN workload allows little time for this.

Children's Centre managers in all areas see the central purpose of the link as being a way of bringing a family out of the home and isolation to a social, communal setting and to a wider set of services. Most areas reported some instances of FNs bringing clients to Children's Centres:

> *"We run a young mums' group here and a lot of parents the FNP are coming into contact with have been to this group, or they have started attending the group again as the FNs have helped them participate in it."*

In some areas a number of group activities for the families they work with have been developed by the FNs, and these have provided an opportunity for collaboration with Children's Centre staff:

> "*The outreach worker and the FN had a meeting last week and she* [outreach worker] *will attend the FNP birthday picnic. They will travel on the train with the young mums and all go to* [area] *so they can get to know her. From that she is going to invite them to a session at the centre to get them through the door for things they might be interested in - baby massage, first aid for babies. We will pay for this…We hope they will start to feel familiar with the Children's Centre and start coming."*

Despite examples of developing relationships and practice, there remained a big variation in the level of understanding expressed by Children's Centre Managers about FNP. Misunderstandings could be on every level. One is about how the intervention relates to health visiting. It is common to see it as an enhanced form of health visiting, particularly in areas where FNs were formerly familiar as health visitors. Another is about the future of the scheme. It is common to assume that once piloted its materials and approaches will become available to all practitioners working with families. Some individuals do have a more detailed understanding of the scheme, usually because they have been introduced to the American experience during their studies. These managers tend to be realistic about their centres and the extent to which they are reaching vulnerable mothers:

> *"We know in this area that the information we have is quite crude - we are in the process of going through a new monitoring system, so in terms of measuring our reach and measuring what we are doing, it is not the greatest system. However, we do receive a breakdown from Health monthly that gives us information about the number of births in the area, teenage mums, first time mums etc. and I certainly don't feel that we are reaching some of those families. We have an antenatal drop-in run monthly by the community midwives that brings people in for their first appointment, which is really good, but I am not convinced that following the birth they are accessing our services. We have a baby massage session running on the same day and the women are not coming back for things like that."*

This detailed understanding of service use provides a helpful context for a partnership between a Children's Centre and FNP. But it does not exist in every Children's Centre yet.

FNs have been located in a variety of bases - including in maternity units, other NHS buildings, local authority buildings other than Children's Centres, or, in larger areas, have worked from home. FNs preferred to be together where possible, and where they were on their own, they preferred to be located with health professionals. Children's Centres may work if they have the space and are situated conveniently for the outreach function. They also need to have evolved to a considerable degree in their own multi-agency systems *before* a specialist project like FNP is introduced into the mix. If the Children's Centre is still a project in development, the pressure is likely to be on FNP to adapt to the developing team dynamic. FNs are likely to be working in the catchment of several centres, and may not benefit with being seen as part of one alone. Rather as the ownership of the intervention needs to transcend the multi-agency model, the location of staff may need to do the same.

In the early stages of the study, when local authority commissioners and Children's Centre managers talked of 'integrating' FNP into centres, they appeared to envision FNs as being members of the staff team, participating in the multi-disciplinary meetings which are part of their weekly processes, and receiving an element of management from the Children's Centre. This kind of integration has only occurred successfully in one pilot site.

This raises questions about how an FNP team can best be located and fitted into local family services. The following principle emerged from the pilot areas: the intervention must be recognised as specialist and unique. Its distinctive qualities need to be clarified for all those who may be working in preventative services with families. In the pilot areas where this has been done best it was through a programme manager or leader who was already well-established in a multi-agency setting, knew most of the people working in it, and 'sold' FNP locally, explaining its special qualities and answering questions about it. This kind of advocacy role will continue to be needed in new sites, and even established sites, until FNP has become established as a distinctive brand.

E. Incorporating FNP in the Service 'Offer'

Local areas have been able to welcome FNP into the strategic context of improving outcomes for children:

> *"What we are saying is that this is a really important part of our Child Health Promotion Programme, this is the targeted bit on the most vulnerable."* (PCT Commissioner)

It was noted that this was facilitated by the mention on FNP in a number of government documents outlining strategy:

> *"What has also gone well is the connectivity between the national policy stuff and the FNP, it is heavily peppered with the FNP and progressive universalism, how it fits in with child health promotion, there is strong connectivity coming through policy, so that is encouraging."* (Programme Lead)

But several respondents noted that the next stage for their areas was to review their universal provision. Reviews raise questions about the health visiting service and its future functions, with which some commissioners and managers were uncomfortable - but not all:

> *"FNP is part of a continuum. Health visiting sits in one place on the continuum, whereas FNP covers many more areas and it isn't health visiting in any way, shape or form."* (Programme Lead)

In one area in particular a programme lead felt that there had been insufficient clarity from the centre about the implications for the health visiting service of FNP. She had told local health visitors that they would 'benefit' from the introduction of FNP, but did not see how they would do so. However, in most areas, in the second year of the pilot, FNP has become more securely embedded in planning:

> *"Certainly, in all our children and young people inter-agency planning, the FNP is in every detail of that. It does have a high profile in health and across the partnership…We are committed to running for three years, and we have now got agreement from the partnership and the commissioners that we will run the RCT. That doesn't mean that the money is there in a bag and we can just collect it."*

But the notion of 'Progressive Universalism' was not universally grasped. At least one commissioner understood it to mean, with reference to FNP, that the service would eventually be offered 'universally' through health visitors. But a middle manager expressed irritation with the idea:

> *"Universal progressivism - I'm not entirely happy with that title. It's become a bit jargonistic and nobody knows what it means … need to think about when we do that* [FNP]; *what age range will be important to work with - that will tell us the number of posts we need…in terms of progressive universalism of other health visitors in terms of managing the complexities of other families."* (Programme Lead)

There can be a real gap in understanding between strategists and those implementing new programmes:

> *"FNP will be a targeted service, at the top of the pyramid…I don't want it to be separate, it has to be part of everything we are doing around child and maternity services, although it is high end resources. Unless we get the infrastructure right it won't work."* (Commissioner)

In one site the pressure on infrastructure has proved intense. Here the centres of population are far apart and the simple placement of a team which needs to interact frequently has been difficult. FNs have to spend extra time on the mechanics of the programme, and some are quite isolated in their daily work. The system was put under extra pressure by the departure of team members, and the difficulty of continuing a service to their clients. If the FNP model is inflexible, this is thrown up by circumstances like that experienced in this area:

> *"These are services that have got to sit alongside existing teams and services, and so the danger is that you have some evangelical people who think they are so special that the world has to move for them, whereas actually we are looking at a bigger picture here. We know that this has been a special project and we had to keep the fidelity, but we have also got other people out there who are working in incredibly stressful situations, really difficult caseloads…What you can't have is an elitist service, we have to manage that alongside the whole and there have been tensions around that."*

An issue that can focus these tensions is the banding or grading of the FNP post. To acknowledge the training and dedication of FNs and to recognise the demands of the role, a standard pay banding has been recommended for them:

> *"We have people in equally stressful jobs and more responsibility on lower bands, managing whole hospitals in fact, big staff groups who aren't on those bands. You have to have some parity. It has to be comparable across different groups - or FNP will price itself out of the market. If we use the job description with that band, commissioners will say this service is too expensive."*

This issue seemed to be particularly acute in the sites with a wide spread. In another a commissioner noted that the issue of pay levels should be dealt with at the end of the pilot phase of FNP rather than during this phase:

> *"If we have to pay people more, we may have to, but we may not be able to employ as many of them."*

Again, it was the pilot sites which had the most developed multi-agency support for FNP which seemed to be least exercised by these difficulties.

F. Existing plans supporting continuation of FNP

What tangible evidence was there that local commissioners would support FNP in the future? Local authorities in all 10 sites had produced Children and Young People's Plans, generally publishing clear documents which set out the local obligations under 'Every Child Matters', listing these obligations as outcome areas. FNP is relevant to many of these outcomes, but it was quoted as being part of a strategy to meet them in some areas only. It is also quoted as relevant for some outcomes and not others.

For example, in one area which sets out its strategy in this way, under 'Being Healthy' the priorities include teenage pregnancy, obesity and CAMHS. This authority sees its strengths in these areas as having been a big reduction in the teenage pregnancy rate, which is reaching targets, with breastfeeding rates above the national average and with well differentiated parenting programmes with strong participation. FNP is noted as one of the latter:

> *"[area] is one of ten pilot sites across the country delivering very intensive parenting support from ante-natal until the child is 2 years of age for those women with additional vulnerability below the age of 23, with their first child."*

The Child Health Promotion Programme is also included under this outcome, described as offered by the health visiting service universally to all children aged 0-5 years and delivered in the home as well as through Children's Centres and early years provision, offering children and families access to timely and effective advice and support. Under the subsequent outcome headings - 'Staying Safe', 'Enjoying and Achieving', 'Making a Positive Contribution', 'Achieving Economic Wellbeing' - there is no mention of FNP. It would be possible to cite the programme as a contributor to these goals too, with a small amount of explanation.

A wider integration of the potential of the programme into the planning documents is visible in some areas. In one the outcomes have been rendered into key improvements that will be delivered, with numbers attached: for example: fewer young teenage girls becoming pregnant; fewer babies dying before their first birthday (reducing infant mortality rate from 9.1 per 1000 live births to 5.3 per thousand). FNP is specifically mentioned under the heading:

> *"How we will deliver the priorities: develop local solutions to local issues, learning through the Family Nurse Partnership, where 100 families will be involved in the programme by October 2007."*

FNP also ticks boxes for Prevention and Early Intervention work in this plan. Commissioners in their interviews were ready to give long verbal lists of outcomes they are looking for more generally, for example:

> *"Public health ones like smoking in pregnancy, breastfeeding, dental care, weaning food, obesity particularly; then there is CAMHS and Mental Health and that readiness for school and family health, mothers' mental health and child mental health. And then children with disability is a high priority…One of the priorities is teenage pregnancy…We are looking for outcomes…Obviously some things in FNP are long-term and you have to make an assumption that you are going to get them."*

Nevertheless, these assumptions have not yet been drawn in the strategic thinking in all ten areas. There is a link between those areas which have begun to address the wider implications of FNP and the extent to which FNP is becoming part of the pattern of provision in that area.

In a pilot area where the programme was less well embedded, it was noticeable that there were no mentions of FNP in local documents, and this indeed betrayed some haziness as to whether FNP was actually the intervention of choice. The strategic commissioning lead in the PCT noted a need to have a programme rather like FNP *"but in the course of time that might metamorphose into another service."* It is obviously difficult to incorporate something that is metamorphosing into a medium-term plan.

In several plans it was clear that the delivery of services for children and families was going to focus on area-based Children's Centres and extended schools providing integrated services and parenting programmes. It was interesting that in the strongest plans, there did not seem to be any attempt to swallow FNP into these structures, but rather an acceptance that they could co-exist. But in others a tension was hinted at:

> *"FNP ticks all the boxes. We want a service model of family support that has been put into Children's Centres and services in and around schools. Children's Centres should be the first point of call for all children and families."*

There are some difficulties with this vision, and planners were able to accommodate FNP more easily when they did not try to tie it too neatly to other services.

Plans may have a particular emphasis, which can be interpreted as favourable or otherwise to FNP. For example, in one site joint area reviews (which exist in several sites and tend to mention teenage pregnancy) all recommended community-based responses to social concerns, including child mental health. The FNP project in this site applied for Local Delivery Plan support and was not successful, though money was given to a community team of youth workers to target drug use and teenage pregnancy. This suggests that FNP can become entangled in a range of projects which work in roughly similar directions but are actually quite distinct.

It was rare for plans to note the child development benefits of FNP, or its potential to intervene in entrenched intergenerational disadvantage. The tone of plans which were most favourable to FNP placed an emphasis on early intervention and prevention. However the 'prevention' aspect was in some cases focussed on preventing teenage pregnancy, rather than on poor outcomes for the children of teenage parents, which is the focus of the FNP approach. There was evidence of some confusion, particularly among Local Authority managers, about what exactly FNP is working to prevent.

Conclusions

This chapter addressed three main issues, the acceptability of the programme to wider services in the local authority and NHS, the requirements of commissioners that will support sustainability of the FNP, and how to deliver the programme most effectively within Children's Centres and universal health services.

It appears that its acceptability in the context of the range of services in the local authority is varied. Some local plans feature it while in others there is no mention at all. While commissioners in some areas appear to be locating FNP as a central aspect of their services for families with young children others have reservations. There appears to be a direct relationship between their understanding of the aims and potential outcomes of FNP and their willingness to sustain FNP in the area and levels of understanding and acceptance vary considerably. For some there is an expectation that, given the different populations and service contexts, the outcomes identified in the US trials will not be forthcoming in England.

The integration of FNP into Children's Centres also has some way to go. The level of understanding of many Children's Centre managers about FNP and how it can be integrated with other services is limited. For successful delivery from within a Children's Centre several features are needed: a centre needs to be established, to have space, to have a policy and system for sharing information, and a good understanding of the FN role and how it can be absorbed into the centre. This includes an understanding of how the work differs from health visiting. One commissioner suggested that the most realistic scenario is that FNs may not be present in every Children's Centre, nor be available to work with every first time parent, vulnerable, young or otherwise. Nevertheless the existence of the service makes manifest the need to reach these most vulnerable families, with this and other mechanisms.

It might be the case that presenting FNP as a stand alone service that can be sought when necessary, in the way that the Macmillan Nurse service or Portage are commissioned, might be the most effective way to integrate it into a continuum of care. This would require ongoing advocacy, though this is best delivered by someone with a programme lead type of role rather than expecting the FNP local team to take on the responsibility.

Chapter 7 - Cost and Workforce Issues

It is intended that the cost-effectiveness of FNP will be investigated more fully as part of the randomised controlled trial which is just starting. Currently, although some outcome information for mothers and children involved in FNP in England has been collected as part of routine monitoring, this does not provide an estimate of the counter-factual, what would have happened in the absence of the programme. Thus, although it is possible to look at resource and workload issues, it is not possible to relate these input issues to outputs in order to consider cost-effectiveness or cost-benefit issues.

A. Family Nurse Partnership costs

As FNP is rolled out in England there is a standard configuration for a team which is intended to have a caseload of 100 clients that comprises:

- Four FNs (band 7)
- Part-time supervisor (band 8a)
- Part-time administrator / data entry clerk
- One day per month of psychology supervision
- Interpreters as appropriate

In addition teams need IT access and equipment and the standard materials for the delivery of the programme. This standard configuration means that the underlying cost will be similar for all FNP teams. There will be some differences related to the need to use interpreters, but the main source of difference is likely to be whether or not a particular team has a full caseload.

The full cost of this team, based on Curtis (2008) including overheads and an allowance for initial training costs is approximately £300,000 a year.[4] This means that the cost per client is around £3,000 a year although this may be an underestimate, given the requirements for a project manager in the first year, for an ongoing project lead and for IT support. For comparison purposes, the latest published UK local authority foster care costs are £521 a week for 2007[5]. Thus the cost of FNP per client is equivalent to around six weeks of foster care. The Nurse Family Partnership programme in the United States (NFP, 2009) costs $4,500 a year on average (with a range of $2914 to $6463 depending on the area). Thus, the costs in England are very similar to those in the USA.

Although clients are eligible to receive the programme from the first or second trimester of pregnancy until their child is two years old, in reality a proportion of clients leave before that point. A more realistic expectation would be that clients remain in the programme on average for eighteen months[6] . Thus, the average cost per client passing through the programme is likely to be around £4,500.

[4] Curtis (2008) was the source of costs for a Band 7 nurse (£61,880) and a Band 2 support worker (£22,256 full-time or £11,128 half time). A Band 8a supervisor has been estimated applying the proportions for a Band 7 nurse to the Band 8a salary median, but using the same qualification costs as for a Band 7 nurse (£71,153 full-time or £42,692 for three days a week). It is assumed that other support costs are included in overheads.

[5] http://www.pssru.ac.uk/pdf/uc/uc2007/uc2007_s06.pdf accessed on 9 July 2009.

[6] At the present point in the life of the programme data are only available on length of stay in the programme for clients who have left. None of the infants has yet reached two years old, so there are no clients who have left the programme having completed it. It is not therefore possible to estimate the average length of attachment to the programme until the first cohort of clients all reach the point where they would have to leave.

B. Expected benefits

In the US trials of the Nurse Family Partnership the main economic benefit comes through the long-term impact of breaking the cycle of disadvantage experienced by the children of teenage mothers. In both Britain and the US the children of teenage mothers are at greater risk than children of older mothers of experiencing poverty as adults (HM Treasury, 2008). This reflects their relatively poor school performance, higher risk of delinquency and greater probability of becoming teenage parents themselves. In terms of lifetime costs these are potentially expensive outcomes. This is one of the reasons why FNP is highlighted as a potentially cost-effective intervention (based on US outcomes) in the Government's recent *Youth Crime Action Plan* (HM Government, 2008).

A systematic review of the costs and long-term benefits of early intervention found that the Nurse Family Partnership costs just over $9,000 per child, but yields an average benefit of more than $26,000 per child, based on the longer term outcomes of the Elmira trial up to the time children were 15 years olds (Aos et al., 2004) A second study by the same team (Aos et al., 2006) found that crime reduction was an important contributor to the benefit. Crime is expensive for victims, for the state which has to investigate, prosecute and fund sentences, and for those who offend in terms of reduced earnings potential.

The annual cost of services related to youth offending funded by taxpayers has been estimated at around £1 billion (Audit Commission, 1996). More recently, the Home Office estimated the cost of crime to individuals and households to be around £36 billion, with the cost being around £60 billion if the cost to businesses is included (Dubourg et al., 2005). Around one in eight offences are committed by children and young people. Thus a reduction of just 1 per cent in the number of offences committed by children and young people has the potential to generate savings for households and individuals of around £45 million a year. However, the children receiving this first wave of FNP in England are all still currently under two years old, so it will be some years before any effect on offending is measurable.

Educational underachievement in Britain compared with France, Germany and the United States has led to output per hour being between 10 and 25 per cent lower than in these other countries. A study by the London School of Economics for the Prince's Trust has estimated that the cost to the economy of educational underachievement is around £18 billion a year (Prince's Trust, 2007). As with crime, the long-term potential gains from addressing this are therefore large. But the benefits occur over a period of fifteen to twenty years or more, not within the first twenty four months.

There is also potential for short-term cost benefits. The US Elmira trial identified short-term cost-effectiveness in terms of the health benefits to both mothers and children (partly as a result of reduced smoking levels; Olds et al., 1986). However, these results were not replicated in the other two trial sites. Moreover, if the involvement of Family Nurses with mothers and children results in earlier identification of health or other problems, then it is possible that in the short term health and other service use will increase over the first few years of the child's life. Although apparently adding to costs it is likely that earlier diagnosis and treatment could lead to savings in later childhood. Short-term cost savings to Government welfare spending on support such as Aid to Families with Dependent Children, Food Stamps and Medicaid were also found in the Elmira trial at the point when the children were four years of age, based principally on reductions in subsequent pregnancies and the use of welfare, with small increases in tax revenues from participants working (Olds et al., 1993). However welfare savings in the UK are likely to be negligible since reducing reliance on benefits with increased employment will be off-set by take-up of tax credits and childcare credit.

C. How do family nurses spend their time?

As part of the evaluation FNs were asked to keep a diary of their work for two weeks in November 2008. They had also been asked to complete similar diaries in 2007. The purpose of the diaries is to identify the different ways in which family nurses' working time is committed, as they are performing a role which is not replicated elsewhere in the National Health Service.

The format of the diary in 2008 was similar to that used in 2007. However, the 2007 diaries had a larger number of detailed recording categories. In practice some of these detailed categories (for example attending case conferences, accompanying clients to clinics and briefing interpreters) accounted for a very small fraction of total available time, so some of these smaller categories were combined in 2008. By contrast, some other categories from 2007 (most notably travel) were divided in 2008 in order to provide more detail (and in the case of travel, were separated into travel related to visits from travel to meetings, training and other activities).

The other main difference between the 2007 and 2008 diaries is that the 2008 diaries identify whether the person completing it was a FN or a supervisor, which the 2007 diaries did not do. Although the main interest is in the FNs (rather than the total of FNs and supervisors) as the information was not available for this separate group in 2007 all comparisons between the two years are for the combined group.

November was chosen in order to avoid periods with a high incidence of holidays, both to obtain activity data from as wide a sample as possible, but also because holidays taken by some staff can create extra work for other staff members who need to cover for them, and this can distort the picture. In fact there was a distortion in activity during the 2008 diary period as several of the sites were in the process of recruiting family nurses to be involved in the randomised controlled trial impact evaluation. This meant that some nurses were involved in interviewing or other recruitment work, which would not normally be happening.

Thirty-eight of the 44 FNs and all 10 supervisors kept a diary. This was a lower completion rate than in 2007, when 46 out of 47 FNs and all 10 supervisors kept them. In addition, about ten per cent of the available time in the diaries that were completed was not accounted for (i.e., some of the diaries were incomplete). Very occasionally this took the form of time within a day when the rest of the time for that day was accounted for. More typically, a whole day or series of days was blank.

The incomplete nature of the data means that it is not possible to compare 2008 with 2007 in terms of the total hours worked by family nurses by site or in total. It would have been useful to compare activities in 2008, when the programme had settled down and family nurses were more experienced in their roles, with the activities in 2007 when the programme was at an earlier stage.

Although the total of the hours worked during the week was available for by nurses who both completed their diaries and did not have unaccounted for gaps, it is unlikely that this group represent an unbiased sample. No attempt has therefore been made to estimate the extent to which FNs were working more than their standard hours in 2008 as was done in 2007. However, it is worth noting that the written notes added to diaries by family nurses in 2008 were almost entirely explanatory (e.g. client cancelled visit at short notice so used the time to deal with admin and emails). In 2007 many FNs added comments which referred to the long hours that they were putting in, and the stress they felt from being contacted by clients when they were supposed to not be working. This is likely to reflect the fact that the relationships with clients would have had a chance to settle down by the second year, and the nurses themselves will have developed greater expertise in managing their time while dealing with

the pressures generated by clients whose own lives are sometimes disorganised and unpredictable. But it may also reflect the extent to which the nurses have helped the clients develop more stable routines and structures in their lives so that the level of cancelled visits and unpredictable contacts has become lower than it was in the initial stages of the programme.

As the diary period does not cover the whole year, it cannot be stated categorically that the working patterns observed were representative. However, as in 2007, absence rates were low during the diary period. In 2007 less than 9 per cent of the standard hours available (for family nurses and supervisors combined) were accounted for by annual leave and sick leave. In 2008 this proportion was just under 11 per cent. The average over the year would normally be around 15 per cent of available hours.

Excluding absence and time unaccounted for, FNs (excluding supervisors) spent around 35 per cent of their working time in direct contact with clients, either on visits, or by telephone or text. More than a quarter of FNs' time (26 per cent) was spent on activities associated with visits (preparation, travel and visit notes). Thus overall visits, other client contact and activities related to visits accounted for 60 per cent of FNs' time.

Family nurses (excluding supervisors) spent 10 per cent of their available time in 2008 on activities that are specific to FNP (team meetings, programme-specific training, and supervision).

Six per cent of FNs' (excluding supervisors) available time in 2008 was accounted for by training or other professional development activity that was not related to the FNP. Around a quarter of this was mandatory training, while three-quarters was other professional development.

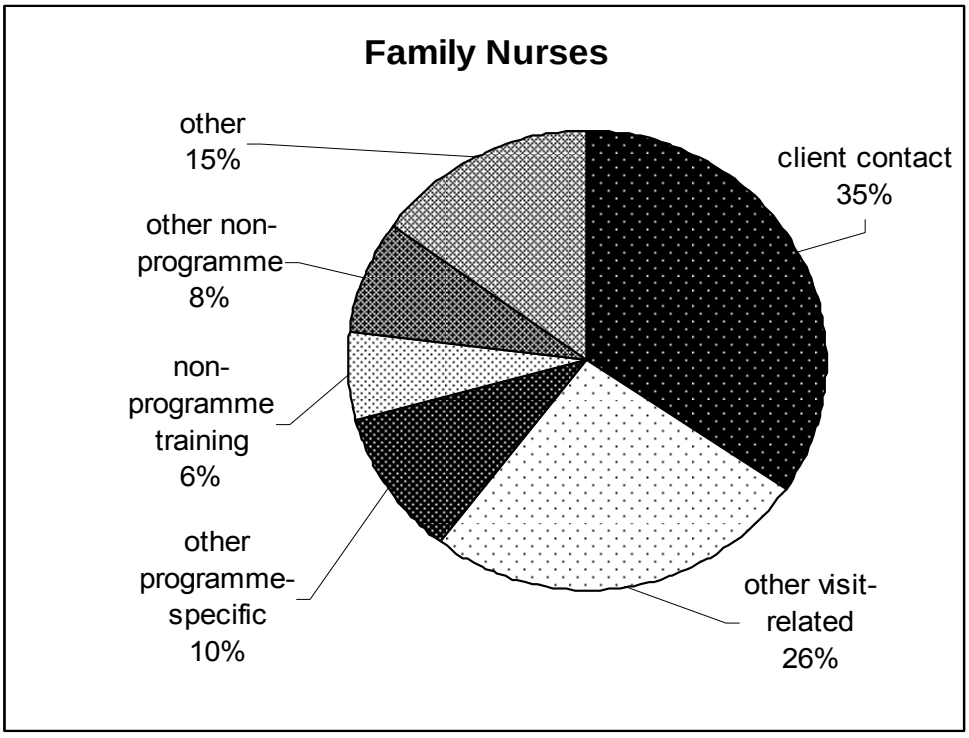
Around 10 per cent of FNs' (excluding supervisors) time was spent on activities which are outside the core FNP programme: non-FNP notes, meetings other than FNP team meetings, and travel not associated with visits. These are activities which are likely to be an important part of the nurses' wider role as professionals working within the National Health Service, not least reflecting the fact that they act as health visitors to the families that they work with.

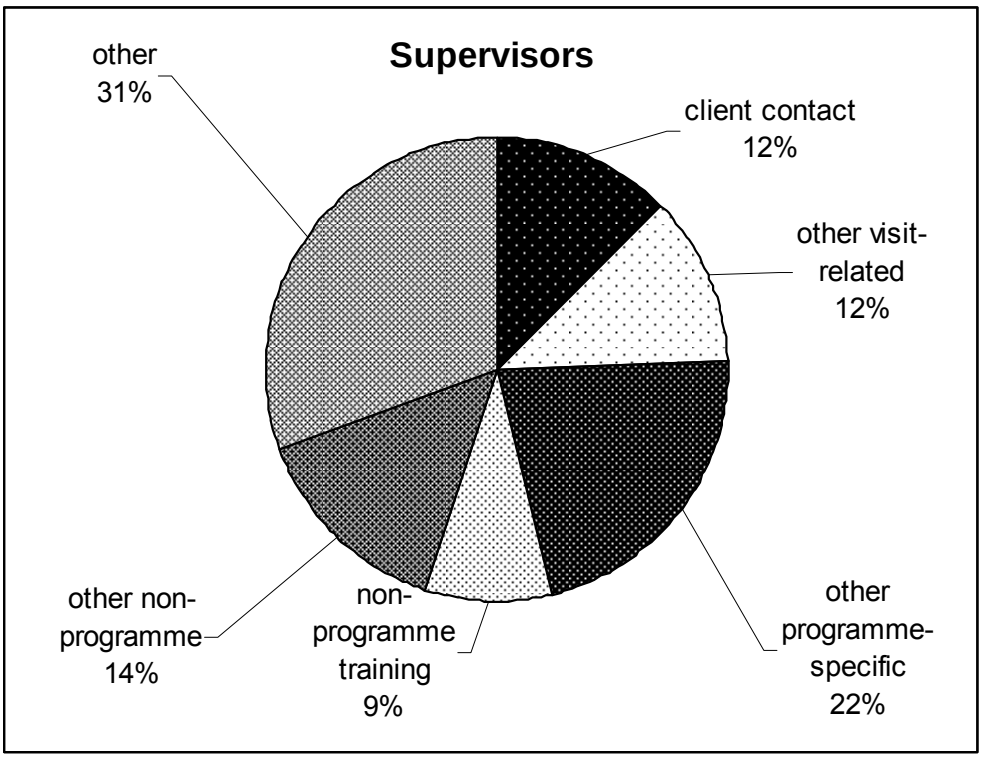
Other work accounted for 15 per cent of time. This includes categories such as administration which is related to the FNP programme, and other categories such as liaison with other professionals which crosses both FNP and wider responsibilities. This category also includes the time spent interviewing and briefing new FNs who were being recruited both to replace departing nurses and to take on specific roles in relation to the impact evaluation.

Figure 7.1 shows the overall allocation of time into the four broad areas by FNs and by supervisors. The position of supervisors is complicated by the fact that typically they combine a part-time supervisor role with a part-time FN role, but the balance between the two roles varies between sites, and depending on the number of days a week the supervisor works. A supervisor working half time as a FN is likely to have a different breakdown of time compared with a supervisor working one day a week as a FN. The charts exclude breaks, annual leave, sick leave, time off in lieu and unallocated time.

Supervisors had around 30 per cent of their time in the residual other category whereas FNs only had around half this proportion. Supervisors frequently noted in their diaries that the specific categories available often did not apply to them. Supervisors were also disproportionately involved in interviewing new FNs during the diary period, which falls into this category.

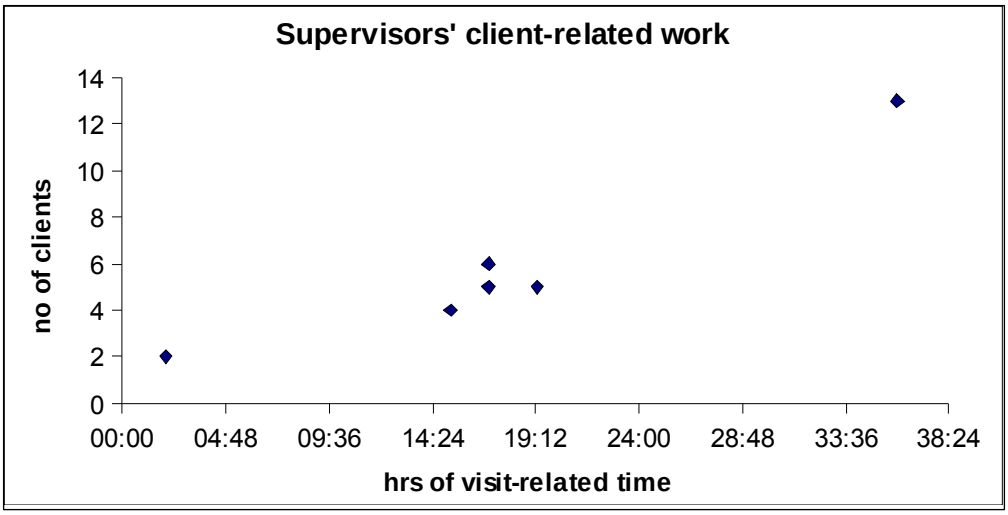
Figure 7.1 - Time Use by Family Nurses (N=38) and Supervisors (N=10), from diaries





Six of the 10 supervisors provided details of the number of clients for whom they were directly responsible as a FN, which varied from two to thirteen. The number of hours spent on visits and other client-related work by supervisors over the two-week diary period was directly related to the number of clients they were responsible for. This is illustrated in Figure 7.2.

Figure 7.2 - Supervisors' client caseload and number of hours spent on client-related time



Direct comparisons with 2007 are hampered by the fact that the 2007 diaries did not ask nurses to identify whether they were FNs or supervisors. Thus, comparisons are only possible combining the two categories of staff in both years. This provides a picture of how teams overall spend their time, but is less useful in terms of determining how the front-line FNs spent their time once the programme had settled down compared with how they spent it during the first year.

The proportion of overall team time spent on visits, combining supervisors and FNs, was 30 per cent in both years. In 2008 the teams spent a lower proportion of their time (23 per cent) on tasks associated with contacts (preparation for visits, travel and visit notes) than they had in 2007 (29 per cent), but some of this difference reflects the fact that the 2008 diary codes separated out FNP-specific notes from other notes such as PCT and health visitor notes. These latter notes accounted for 1½ per cent of available time.

Team members spent 13 per cent of their available time in 2008 on activities that are specific to FNP (team meetings, programme-specific training, and supervision). This proportion was 20 per cent in 2007.

To the extent that comparisons are possible between the two years, there appears to be a stronger focus in 2008 on visit and client-related activity and less emphasis on other aspects of the programme. This is likely to be because in 2007 nurses had to undergo extensive training in how to deliver the FNP, and they also had to spend time becoming fully familiar with the programme material. By 2008 the training had been completed (other than for new FNs) and the nurses had become more experienced in the content and delivery of the programme. Thus 2008 gives a better picture of how an established programme would work.

Client contact

The diaries identified 538 successful visits over the two-week period (by both FNs and supervisors when working directly as a FN). The average length of a visit was one hour and twenty-five minutes. This is longer than the overall mean based on the home visit forms submitted though the year (see Chapter 2), from which the average visit length was one hour 15 minutes, almost identical to that derived from the forms in year 1 of the evaluation and the staff work diaries in 2007, so the apparent increase based on the 2008 diaries should be interpreted in that light. Possibly the second time around they were less precise in completing the diaries (which are divided into 15 minute segments).

Nurses had 143 unsuccessful visit attempts, including those where the client cancelled by text message at the last minute. In fact this is an underestimate, because there were a number of occasions where nurses recorded administration or consultation during a diary period with a note that this time had been planned for a visit which the client had cancelled at short notice. The unsuccessful visits took an average of 30 minutes. In 2007 there had been 129 unsuccessful visits recorded, by more nurses. The average number of unsuccessful visits per nurse increased slightly from 2.3 to 3 over the successive two-week diary periods. Nurses recorded at least 251 episodes related to contacts with clients either by telephone or by text message (some diary entries refer to more than one telephone call or text message during a period, hence the 251 is a minimum estimate). These lasted an average of 18 minutes each.

Contact-related time

Travel is one of the main elements in contact-related time. The average length of travel time per visit (successful or unsuccessful) was 21 minutes (see Table 7.1). Some visits require this amount of travel time each way, but in many cases nurses did not start and end their journeys to visits at the same point, so that the journey after a visit might be to another client or to a team meeting. Thus, travel time per visit is at least 21 minutes, but could be more if a visit cannot be combined with another journey and entails a round trip.

The average length of journey time is slightly less than in 2007, when it was 25 minutes. Preparation for visits amounted to around 5 per cent of total working time (or 6 per cent if breaks, leave and unallocated time are excluded). This amounted to an average of 22 minutes per visit (whether successful or unsuccessful). The notes required by the FNP programme amounted to 6 per cent of total time (7 per cent of time excluding absence and unallocated time) or 26 minutes per completed visit.

Thus, for every typical hour and a half visit, there is at least 21 minutes of travel, 22 minutes of preparation and 26 minutes of notes. Although there was some variation in journey time to visits by site, this was not great (see Table 7.1). Most had journey times clustered around 20 minutes within the range 17 to 21 minutes. Sites 7 and 8 had slightly longer average journey times (27 and 25 minutes) and site 2 had a shorter average journey time (15 minutes).

Table 7.1 Average journey time to or from visits by site

Site	Journey time	Number of visits
1	00:21	98
2	00:15	93
3	00:25	90
4	00:18	65
5	00:19	48
6	00:17	40
7	00:27	59
8	00:25	34
9	00:20	71
10	00:20	86
All sites	**00:21**	**684**

Programme-specific time

Some elements of what nurses do are specific to the protocols of the FNP. These elements accounted for 13 per cent of their time. The equivalent figure in 2007 was 20 per cent. A large part of the difference between the two years is accounted for by the fact that in 2008 most had completed their programme-specific training, whereas in 2007 this accounted for 9 per cent of all working time. Other elements include individual and group supervision (5 per cent of working time), and team meetings (3 per cent of all time). Both these figures were similar to those in 2007.

Non-programme time

The most significant element of non-programme time was training and personal development. Just under 7 per cent of available time (9 per cent of time excluding absences and unallocated time) in 2008 was accounted for by training or other professional development activity that was not related to the FNP. Around a quarter of this was mandatory training, while three-quarters was other professional development.

A slightly lower proportion of time (8 per cent) was accounted for by other non-programme activities: other meetings, other travel and work related to other jobs or previous jobs. Part of the explanation for this, is that in 2007 many nurses had only just moved into the programme so had some responsibilities related to their previous work. By 2008 most had been in the programme for some time.

Other time

Nurses spent 3 per cent of their working time in consultation with others (case conferences, and discussions with GPs, social workers, Connexions and other agencies). They spent 8 per cent of their working time on administrative tasks and 4 per cent on unclassified activities. These were all the same as the proportions in 2007.

Table 7.2 - Average time (hours and minutes) per nurse (excluding supervisors) on main activities over two-week diary period by site

	Site										
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**All Sites**
Client contact	22:07	28:37	21:48	18:22	16:09	18:52	26:05	11:25	26:15	31:03	22:15
Other visit-related	21:00	18:56	19:03	14:52	10:39	09:52	19:45	06:55	24:15	20:11	16:58
Other programme-specific	04:03	02:22	05:45	04:48	13:48	04:07	05:35	01:30	14:33	07:56	06:54
Non-programme training	07:33	02:03	07:00	01:07	03:09	11:30	02:45	00:00	02:56	03:33	03:58
Other non-programme	05:45	06:52	09:00	02:33	02:27	11:07	02:40	02:25	06:41	04:22	05:15
Other	09:56	07:26	08:45	08:45	07:27	05:15	09:45	07:10	18:30	18:07	10:20
Absent	10:52	01:45	16:00	07:52	09:00	00:37	16:55	22:50	02:48	05:07	09:27
Not recorded	10:18	16:30	06:36	12:22	00:00	24:45	00:00	27:30	06:11	00:00	09:07
Total hours	**91:37**	**84:33**	**93:57**	**70:45**	**62:39**	**86:07**	**83:30**	**79:45**	**102:11**	**90:22**	**84:17**

D. Variation between sites

Table 7.2 shows the average time spent per family nurse (excluding supervisors) on key activities by site. This comparison is complicated by the fact that the response rate to the diary exercise varied by site. For example for one site this information is based on diaries from only two nurses. In addition, sites varied in the extent to which they returned diaries where time was not accounted for. This makes it difficult to draw reliable comparisons between sites. Site 8 stands out in this respect. It appears to have a very small number of hours spent on client-related activities, but it has a very high number of hours which were not accounted for. The very unusual pattern recorded in site 8 means that it is probably not safe to rely on this information.

Sites 10, 2 and 9 stand out with the highest amounts of time spent in client contact (31 hrs 3 minutes, 28 hrs 37 minutes and 26 hrs 15 minutes respectively). Site 9, however, recorded the highest overall hours worked over the diary period (102 per nurse). A full-time nurse would normally work 37.5 hours a week, so that over a two-week period the standard total would be 75 hours. It is possible that the 6 hours 11 minutes per nurse that was unrecorded at site 9 was accounted for by non-working time (this may be true in some other sites as well), in which case the total hours worked would come down to 96, but this would still be higher than in all the other sites. The three sites where no time was unaccounted for (sites 5, 7 and 10) had average recorded hours of 62 hours 39 minutes, 83 hours 30 minutes and 90 hours 22 minutes.

Staff in sites 5 and 9 stand out as spending on average more time on other programme specific activities (team meetings, supervision and FNP training). In site 5 this represents a large amount of time spent in team meetings and training. In site 9 about half is accounted for by training, and there was a relatively large amount of time spent in individual supervision sessions. Supervision is likely to vary from week to week given different circumstances of both nurses and clients.

Rather than compare total hours per FN it may be more useful to compare the proportion of time in each site spent on client-related activities excluding time spent on leave and breaks and time unaccounted for. This is shown in Table 7.3. Sites 5 and 6 had just half the available hours spent on client-related activities. Sites 2, 4 and 7 by contrast had two-thirds or more.

Table 7.3 - Proportion of available hours spent on client-related activities and on non-FNP training by site (N=38, excluding supervisors)

Site	Client-related	Non-programme training
1	61.2%	10.7%
2	71.7%	3.1%
3	57.3%	9.8%
4	65.8%	2.2%
5	50.0%	5.9%
6	50.0%	5.9%
7	68.8%	4.1%
8	62.3%	0.0%
9	54.2%	3.2%
10	60.1%	4.2%
All sites	**59.7%**	**6.0%**

Sites 1 and 3 had the highest proportion of total time accounted for by non-FNP training or professional development activities (11 per cent and 10 per cent respectively). However, there is no evidence that non-FNP training is at the expense of client-related activities which were close to the average across all ten programmes.

It is difficult to draw firm conclusions about overall differences between sites, given the variability in the data, but based on the available data site 7 appears to have struck a balance. It has high levels of client contact and client-related work, with no time unaccounted for. The overall hours recorded are not far from standard working hours, so that nurses appear to have managed to secure a good work-life balance.

Comparing the proportion of time accounted for by different activities at each site is complicated by the fact that the sites had different rates of absence (particularly annual leave) during the two diary week, and there were marked differences in the extent to which time was unaccounted for. This is shown in Table 7.4a. In three sites a fifth or more of the total diary time was not accounted for. In some cases this may be because non-working days were not recorded as such (or nurses did not record their normal hours so that it was not possible to infer that non-recorded time was accounted for by part-time working.). At one site (site 8) there was both a high level of non-recorded time and more than a quarter of available time was accounted for by annual leave. Thus, the actual working time represented less than half of all available time.

Taking all hours, the highest levels of client-related activity were recorded at sites 2, 7 and 10 (all between 55 and 57 per cent of all time). The lowest levels were found at site 8 and site 6 (23 per cent and 33 per cent respectively), although site 8 had exceptionally high rates of both absence and non-recording. The other sites all recorded around 45 per cent of client related activity. Removing all absence and unrecorded time reveals that three sites (2, 4 and 7) had two-thirds or more of available time accounted for by client-related activities (see Table 7.4b). In sites 5 and 6 these accounted for half or less of all working time. In most sites the total was 55 to 60 per cent.

The two tables tell consistent stories of high rates of client contact in sites 7 and 2 and low levels in site 6. Site 6 had relatively large proportion of time accounted for by non-programme training (19 per cent) and other non-programme activities (18 per cent). Part of this is due to one of the nurses who completed a diary attending a conference involving travel, which distorts the figures when part of a small group, but which is likely to happen occasionally at all sites.

Using the diary data it is clearly easier to identify sites where the balance of activities seems to be working well (sites 2 and 7), but the evidence is not sufficiently robust to identify sites where there appear to be problems.

Table 7.4a - Proportion of all time at each site spent on different activities (N=38, excluding supervisors)

	1	2	3	4	5	6	7	8	9	10	All sites
Client contact	24.1%	33.9%	23.2%	26.0%	25.8%	21.9%	31.2%	14.3%	25.7%	34.4%	26.4%
Other visit-related	22.9%	22.4%	20.3%	21.0%	17.0%	11.5%	23.7%	8.7%	23.7%	22.3%	20.1%
Other programme-specific	4.4%	2.8%	6.1%	6.8%	22.0%	4.8%	6.7%	1.9%	14.3%	8.8%	8.2%
Non-programme training	8.3%	2.4%	7.5%	1.6%	5.0%	13.4%	3.3%	0.0%	2.9%	3.9%	4.7%
Other non-programme	6.3%	8.1%	9.6%	3.6%	3.9%	12.9%	3.2%	3.0%	6.5%	4.8%	6.2%
Other	10.8%	8.8%	9.3%	12.4%	11.9%	6.1%	11.7%	9.0%	18.1%	20.1%	12.3%
Absent	11.9%	2.1%	17.0%	11.1%	14.4%	0.7%	20.3%	28.6%	2.8%	5.7%	11.2%
Not recorded	11.3%	19.5%	7.0%	17.5%	0.0%	28.7%	0.0%	34.5%	6.1%	0.0%	10.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 7.4b: Proportion of recorded non-absent time at each site spent on different activities (N=38, excluding supervisors)

	1	2	3	4	5	6	7	8	9	10	All sites
Client contact	31.4%	43.2%	30.6%	36.4%	30.1%	31.1%	39.2%	38.8%	28.2%	36.4%	33.9%
Other visit-related	29.8%	28.6%	26.7%	29.5%	19.9%	16.3%	29.7%	23.5%	26.0%	23.7%	25.8%
Other programme-specific	5.8%	3.6%	8.1%	9.5%	25.7%	6.8%	8.4%	5.1%	15.6%	9.3%	10.5%
Non-programme training	10.7%	3.1%	9.8%	2.2%	5.9%	18.9%	4.1%	0.0%	3.2%	4.2%	6.0%
Other non-programme	8.2%	10.4%	12.6%	5.1%	4.6%	18.3%	4.0%	8.2%	7.2%	5.1%	8.0%
Other	14.1%	11.2%	12.3%	17.3%	13.9%	8.6%	14.6%	24.4%	19.9%	21.3%	15.7%

E. Cost-effectiveness issues

A fundamental part of the rationale for the FNP, both in the USA and in England, is the economic case for early intervention. The children of disadvantaged teenage parents have a much higher probability of being on an expensive path through life than do other children. This probability is increased where parents have a history of using drugs or alcohol, or have experienced abuse. As earlier chapters have indicated, such problems are relatively common among FNP parents in England. These children are at significantly higher risk of conduct disorder, special education, poor educational attainment, anti-social behaviour, offending, substance use, and early parenthood.

However, one of the challenges confronting commissioners is that these costs will be incurred in the future - in the case of offending costs more than ten years in the future. Moreover, they will be incurred by other agencies, by families themselves, and by the victims of crime. The costs of the programme will be incurred this year by the National Health Service (with some contributions from other sources). Those used to looking at cost-effectiveness from the perspective of short-term costs and savings to the health service alone may regard the programme as expensive and difficult to justify.

The cumulative cost to public services of children with troubled behaviour is ten times that for other children. The mean extra cost is more than £15,000 a year, of which families themselves bear a third (mainly through reduced earnings), education services bear a third, health services and the benefit system each bear 15 per cent and social services bear 6 per cent (Scott & Spender, 2001). An authoritative systematic review of a wide range of interventions by Aos et al. (2004) found that in the USA the Nurse Family Partnership generated $17,000 in net benefits per child (i.e. after deducting the cost of the programme) over the timescale during which outcomes had been measured (usually up to the age of 16). A substantial part of this was attributable to lower rates of offending in adolescence by those whose mothers had been visited during pregnancy and infancy.

While at this stage in the lifetime of providing the programme in England it is not possible to conclude that it is cost-effective, the risks that the children will incur high lifetime costs are high. As the Nobel Laureate economist Heckman has argued (2006), investment in children's early years forms an essential building block to their potential achievements in later life, and because of the length of time over which returns on the investment can be realised, the potential returns are larger than those for most other investments in human capital. But as with expenditure on primary schools, the returns are likely to be generated many years after the costs are incurred.

Conclusions

It is not possible to compare the total hours worked by the family nurses and supervisors between the two years because of inconsistencies in the way in which diaries were completed in 2008, particularly the high proportion of time that was not accounted for. Nevertheless there was a much lower level of comments made by FNs in 2008 compared with 2007 about the demanding hours required by the programme and the intrusion of their jobs into non-working time. This suggests that as the programme has bedded down, and the client caseload has become more settled it has become more feasible to deliver the requirements of the programme within their normal working hours. The programme requires a style of working which involves a high level of time management skills. It is possible that the FNs and supervisors who have remained in the programme are those who are particularly skilled in this dimension of their work. They may also have received more support from their PCTs to reduce other non-FNP duties such as duplicate notes.

Nine (just under one in five) of the 48 nurses and supervisors who completed a diary in 2008 reported that they worked less than full-time (although not all respondents reported their normal hours). In 2007 one in four worked part-time, so there has been a reduction in part-time working between the two years. In most sites only one team member was working part-time in 2008, although in one site almost all the FNs worked less than full-time. One of the challenges in delivering a programme of this kind, based on a supportive relationship, is striking a balance between consistent response to client needs and the needs of staff to be able to keep their private time free from intrusions and interruptions. Judging by the comments (particularly the absence of comments) in the 2008 diaries, striking this balance was less of a challenge in 2008 than it had been in 2007. However, given that one site has markedly different staffing arrangements from the others, it might be worth a closer study of how a largely part-time workforce delivers the programme compared with the way the largely full-time workforce does at the other nine sites.

Some of the comments made by clients reported in Chapter 4 indicate that mothers who are in paid work (and presumably also those in full-time education) find it difficult to arrange meetings with nurses who work restricted hours. As babies become older the proportion of mothers who are working, or are back in school or attending college is likely to grow. If these mothers are to be retained in the programme it may be necessary to think through the pattern of hours worked by nurses.

FNs have to maintain fidelity to the programme while at the same time being NHS staff and operating within a multi-agency environment. This means that it is inevitable that part of their time will be taken up with non-FNP activities which reflect the institutional structures within which the programme operates in England. Some of the comments from nurses reported in Chapter 5 indicate that some nurses feel that NHS administrative burdens can limit their ability to deliver the programme effectively by putting additional pressures on their time.

The high proportion of time accounted for by non-FNP training suggests that FNs do not see the programme as offering a long-term career. FNs and supervisors are spending on average nearly a tenth of their time on continuing professional development. This suggests that they feel the need to ensure that they are not falling behind their colleagues working in more mainstream roles. Some of the comments from nurses in Chapter 5 are consistent with this. They express anxiety about the lack of opportunity for promotion within the programme, so that those who want greater responsibility (and higher pay) have to return to mainstream roles. This may be inevitable as long as the programme remains a pilot which is happening at a small number of sites. But even if it is extended, it is only ever going to carry a small caseload of very vulnerable clients, so the number of jobs available within the programme would be small even if it became a nationwide intervention.

Chapter 8 - Potential impacts of FNP

In this chapter information is given about the progress of mothers during pregnancy and infancy in terms of smoking behaviour, the status of infants at birth (weight and gestational age), parenting behaviour represented by breastfeeding through the first year and life course in terms of change in the level of potentially abusive relationships. However it must be noted at the outset that none of the information in this chapter can necessarily be attributed to receipt of FNP since there is no comparable information about mothers with similar characteristics who are not receiving FNP, nor is there comparable information about populations in England for most of the data, given that the client group is very specific, i.e. first time parents under the age of 20 or 20 to 24 year old. It should instead be interpreted in terms of potential impacts. The required information about the impact of receiving the programme will emerge over time as results are produced from the Randomised Control Trial that has just been initiated in (April 2009) the majority of the wave 1 sites and an additional 10 (wave 2b) sites in England. That will allow two comparable groups to be studied, one receiving FNP and the other not.

A. Changes in smoking during pregnancy and from pregnancy to infancy

Reports of the extent to which clients smoked during pregnancy vary depending on which time-point is studied. Two 'Health Habits' questions ask about smoking - one about current smoking i.e. number of cigarettes in last 48 hours and also whether they smoked at all during pregnancy. These are posed at intake to the programme, at about 36 weeks gestation, then after the baby is born at 6 weeks and again when infants are 12 months old.

It can be seen in Table 8.1 that, even at intake for those clients with a health habits form (N=1112 of 1304) information concerning the simple binary question of smoking in pregnancy (yes or no) was missing (see also Chapter 5 for more information about missing and incomplete forms). If the question enquiring about the number of cigarettes smoked in the previous 48 hours (the previous question) had been completed with any number greater than 0 at intake then missing data could be populated to identify smokers, since they clearly did smoke in pregnancy. However if they had reported no cigarettes in the previous 48 hours, and the yes/no question was blank, it was not possible to know whether they did or did not smoke at any point in the pregnancy. Thus the proportion who indicated smoking in pregnancy may be an underestimate.

With this possibly inaccurate estimate given that information is absent for 192 of the total client group of 1304, more than half (631/1112, 57%) smoked at some point during pregnancy. Based on information collected during early pregnancy, at a stage when the relationship with the FN was just developing, fewer than half (519/1112, 47%) reported smoking during pregnancy; assuming that the question was left blank for those who were non-smokers (see Table 8.1).

Table 8.1 - Smoking during pregnancy based on responses to the question "Did you smoke at all during your pregnancy?" asked at four time points, intake, 36 weeks, infancy 6 weeks and infancy 12 months

	Total N	Total N with form	Smoker N (%)	Not Smoker N (%)	Question not completed[7] N (%)
Pregnancy, Intake	1304	1112	519 (47)	393 (35)	200 (18)
Pregnancy, 36 weeks	1083	943	392 (42)	399 (42)	152 (16)
Infancy, 6 weeks	1066	899	416 (46)	440 (49)	43 (5)
Infancy,12 months	472	241	119 (49)	102 (42)	20 (8)
Yes at any of the 4 time-points	1304	1112	631 (57)	476 (43)	

Table 8.2 shows the proportion who indicated that they had smoked in the previous 48 hours, at their intake into FNP, by each site. More than one third (39%) had smoked in the previous 2 days with considerable variability between sites, ranging from as low as 17% in site 8 (an area with many ethnic minority families) to 58% (in a predominantly white area); the average number of cigarettes smoked per day was just over 6. Similar information for smoking at 36 weeks gestation is in Table 8.3, where again for those who smoke the average number smoked per day is 6.

Table 8.2 - Rates of smoking and cigarettes per day at intake, for those clients who reported smoking in the previous 2 days

Site	N with intake data	N (%) Smoke, previous 2 days	Mean per day, smokers	Range	N (%) Smoke 5+ per day	Mean per day (5+ per day)	Range
1	101	59 (58)	6.7	0.5 - 17	44 (44)	8.1	5 - 17
2	100	48 (48)	5.3	1 - 15	26 (26)	7.5	5 - 15
3	160	65 (41)	8.1	0.5 - 30	44 (28)	10.8	5 - 30
4	122	47 (39)	5.7	0.5 - 20	27 (22)	8.2	5 - 20
5	103	32 (31)	7.2	1 - 20	20 (19)	10.0	5 - 20
6	95	52 (55)	7.1	0.5 - 20	32 (34)	10.1	5 - 20
7	101	49 (49)	5.3	0.5 - 20	27 (27)	8.1	5 - 20
8	103	17 (17)	4.7	1 - 10	9 (9)	7.2	5 - 10
9	124	30 (24)	6.3	1 - 20	16 (13)	9.8	5 - 20
10	103	38 (37)	5.0	0.5 - 15	20 (19)	7.8	5 - 15
Total	**1112**	**437 (39)**	**6.1**	**0.5 - 30**	**265 (24)**	**8.8**	**5 - 30**

Nevertheless, the proportion of clients who reported smoking any cigarettes at 36 weeks gestation was lower than at intake, at 32% overall (see Table 8.3), ranging between sites from as low as 9% to as high at 50% (the same highest and lowest sites as at intake).

The goals for pregnancy suggested by the US NFP National Service Office for reducing smoking are: a 20% or greater reduction in the percentage of women smoking; and for those who smoked 5 or more cigarettes per day at intake an average reduction of 3.5 in the number of cigarettes smoked per day between intake and 36 weeks pregnancy. Thus the number of cigarettes smoked per day is also given for that target group in Tables 8.2 and 8.3.

[7] Presumed to be non-smoker but cannot tell for certain.

Table 8.3 - Rates of smoking and cigarettes per day at 36 weeks gestation, for those clients who reported smoking in the previous 2 days

Site	N with 36 week data	N (%) smoke in previous 2 days	Mean per day (all smokers)	Range	N (%) Smoke 5+ per day	Mean per day (5+ per day)	Range
1	84	42 (50)	7.5	0.5 - 20	30 (36)	9.4	5 - 20
2	83	34 (41)	5.2	1 - 10	20 (24)	7.3	5 - 10
3	140	47 (34)	7.7	0.5 - 30	30 (21)	10.8	5 - 30
4	112	39 (35)	6.8	0.5 - 20	25 (22)	9.0	5 - 20
5	84	26 (31)	5.8	1 - 20	17 (20)	7.9	5 - 20
6	78	35 (45)	5.8	0.5 - 15	22 (28)	7.9	5 - 15
7	86	34 (40)	4.4	1 - 15	13 (15)	4.1	5 - 15
8	92	8 (9)	3.8	0.5 - 10	3 (3)	6.8	5 - 10
9	105	20 (19)	5.8	0.5 - 15	11 (10)	9.5	5 - 15
10	79	17 (22)	7.4	0.5 -40	9 (11)	12.1	5 - 40
Total	**943**	**302 (32)**	**6.0**	**0.5 - 40**	**180 (19)**	**8.5**	**5 - 40**

For 916 clients there was information about their smoking behaviour at both pregnancy time points (see Table 8.4). For this group the initial rate of smoking was 40%, reducing to 32% at 36 weeks, thus a reduction of 8% but representing a relative reduction of 8/40 or 20% from the original rate.

The relative reduction in the rate of smokers varies widely between sites, from 6% to 46% (see Table 8.4). However it should be noted that the number of smokers per site also varies widely and the site with a 46% reduction had the lowest rate of smokers of all. It is possible that this is accurate, but it is also possible, given the issue of missing forms described in Chapter 5, that some sites may have only completed health habits forms for clients who smoke. This site had the lowest level of completion of the health habits form at both 36 weeks gestation and at 12 months after infants were born which would reduce the total N and artificially inflate the relative reduction rate. Site 10, also with a high relative reduction in the rate of clients smoking, similarly has low completion rates for the forms documenting smoking behaviour.

The reduction (mean number of cigarettes per day) was modest at 1.5 but significant overall (see Table 8.5). Numbers of smokers per site are small so findings should be treated as indicative only, but there was a significant reduction in 7 sites, ranging from 1.2 per day to 2.9 cigarettes. The reduction was non-significant in two sites (4 and 10) and a small non-significant increase was found in one site (1). These sites had at least average levels of smokers, compared to the total group so the absence of significant change may relate to the particular populations or to the way that smoking was discussed with clients by these particular teams rather than to a likelihood for the general population of the area to be especially resistant to advice about cutting back on smoking.

Considering only clients who smoked at least 5 cigarettes per day at intake the mean reduction overall was greater, at 2.4, although it was lower than the goal specified in the US guidelines. The reduction was significant in 7 of the 10 sites, but again there was virtually no change for smokers in sites 1 and 4, both of which are located in the North of England.

Table 8.4 - Relative reduction in the rate of smoking from intake to 36 weeks by site, based in clients with data at both time points[8]

Site	N	N Smoke in previous 2 days, intake	% Smoke intake	N Smoke in previous 2 days, 36 weeks	% Smoke 36 weeks	Reduction in rate	Relative reduction
1	81	45	56	41	51	5/56	9%
2	81	37	46	32	40	6/46	13%
3	139	57	41	46	33	8/57	14%
4	108	43	40	37	34	6/40	15%
5	81	27	33	25	31	2/33	6%
6	78	47	60	35	45	15/60	25%
7	86	41	48	34	40	8/48	17%
8	83	11	13	6	7	6/13	46%
9	105	25	24	20	19	5/24	21%
10	74	29	39	16	22	17/39	44%
Total	**916**	**362**	**40**	**292**	**32**	**8/40**	**20%**

Table 8.5 - **Change in the mean number of cigarettes smoked per day from pregnancy intake to 36 weeks gestation by site[9]**

Site	N	Mean reduction, all smokers	Range	N Smoke 5+per day	Mean reduction, 5+ per day smokers	Range
1	81	+0.5	+15 - 7.5	33	+0.8	+15 - 7.5
2	81	1.2*	+6 - 11.5	21	2.2*	+5 - 11.5
3	139	2.4*	+13.5 - 22.5	39	3.4*	+13.5 - 22.5
4	108	0.1	+7.5 - 8.5	24	0.2	+7.5 - 8.5
5	81	1.3*	+3.0 - 7.5	16	1.8*	+2.5 - 7.5
6	78	2.9*	+6.5 - 17	29	4.1*	+6.5 - 17
7	86	2.1*	+4.5 - 10	23	4.0*	+2.5 - 10
8	83	2.5*	+2 - 10	4	5.8	0.5 - 10
9	105	2.7*	+3.5 - 15	14	3.5*	+3.5 - 15
10	74	1.0	+37 - 12.5	16	3.2*	+7.5 -12.5
Total	**916**	**1.5***	**+37 - 22.5**	**219**	**2.4***	**+15 - 22.5**

* indicates that the amount of change is significant at p<0.05, (*) signifies a trend at p<0.10

Clients were asked again when their infant was 6 weeks old about their smoking behaviour (see Table 8.6 and 8.7). About the same proportion reported smoking when infants were 6 weeks compared to the rate at intake during pregnancy (39%) and the reduction in the number of cigarettes smoked per day from intake is minimal, for those smoking at 6 weeks (see Table 8.7). The data in Table 8.7 are, however, complex in that in all sites apart from site 8 some of those who were smoking when their infants were 6 weeks old reported not smoking any cigarettes at intake. The 39% who smoke at 6 weeks are not the same individuals as the 40% smoking at intake. Of the 346 who reported smoking at intake only 293 (85%) reported smoking at 6 weeks. Similarly of the 338 smoking at 6 weeks, only 302 (89%) were said to be smoking at intake. Thus the final column gives information on those who did report being a smoker at intake and for that group (N=346) there is overall a small but significant reduction in the number of cigarettes (mean 1.1 fewer), although this reduction is only significant in one site (6) when the clients are broken down by site. These findings on

[8] It is possible that Health Habits forms or the smoking questions on these forms might not have been completed for clients who were not smoking at 36 weeks, thus reducing the proportion for whom a reduction could be calculated.

[9] In all smoking change tables: + signifies a mean increase in the number of cigarettes;

change in smoking behaviour should be treated with caution in view of the amount of missing data (reported in Chapter 5) which is even greater at 6 weeks than it was at 36 weeks gestation.

Table 8.6 - Rates of maternal smoking and cigarettes per day at 6 weeks infancy by site

Site	N With infant 6w data	N (%) Smoke infancy 6 weeks	Mean per day at 6 weeks (smokers)	Range	N (%) Smoke 5 or more	Mean cigs. (5+ per day)	Range
1	74	37 (50)	5.8	0.5-15	21 (28)	8.0	5-15
2	92	47 (51)	4.1	1-10	31 (34)	6.4	5-10
3	135	54 (40)	7.6	1-25	42 (31)	9.1	5-25
4	104	39 (38)	6.7	2-15	31 (30)	7.6	5-15
5	85	28 (33)	5.8	0.5-20	15 (18)	9.0	5-20
6	72	41 (57)	4.5	0.5-12.5	21 (29)	6.6	5-12.5
7	85	44 (52)	5.5	0.5-27	22 (26)	8.8	5-27
8	73	11 (15)	4.8	1.5-15	4 (5)	8.8	5-15
9	95	23 (24)	6.7	1-20	16 (17)	8.8	5-20
10	80	28 (35)	5.9	1-15	20 (25)	7.2	5-15
Total	**895**	**352 (39)**	**5.7**	**0.5-27**	**223 (25)**	**8.0**	**5-27**

Table 8.7 - Change in the mean number of cigarettes smoked per day from pregnancy intake to infancy 6 weeks by site (N=861)

Site	N Data at intake and infancy 6 weeks	N (%) Smoke at intake	N (%) Smoke at 6 weeks	Mean per day at intake (smoke at 6 weeks)	Mean per day (smoke at 6 weeks)	Mean reduction from intake (smoke at 6 weeks)	Mean reduction from intake (smoke at intake)
1	70	40 (57)	36 (51)	6.7	5.8	0.9	1.2
2	88	41 (47)	44 (50)	4.3	5.0	+0.7	0.9
3	133	53 (40)	52 (39)	7.4	7.4	0	1.1
4	102	40 (39)	38 (37)	5.6	6.8	+1.2	+0.7
5	80	25 (31)	26 (33)	5.9	6.1	+0.1	0.9
6	72	44 (61)	41 (60)	6.8	4.5	2.3	3.4*
7	84	41 (49)	44 (52)	4.4	5.5	+1.1	0.4
8	63	10 (16)	8 (13)	5.9	4.8	1.1	1.5
9	94	22 (23)	23 (25)	4.7	6.7	+2.0	1.9
10	75	30 (40)	26 (35)	5.6	5.9	0.2	0.8
Total	**861**	**346 (40)**	**338 (39)**	**5.8**	**5.9**	**+0.1**	**1.1***

* indicates that the amount of change is significant at $p<0.05$

B. Infant birth status

Gestational age and prematurity

At the cut-off point for this report (7th February 2009) infant data forms had been submitted for 1013 infants, 10 of whom were twins. Gender data were available for 1007 (469 female, 46.6% and 538 male, 53.4%). The mean age at gestation (N=1000) was 39.3 weeks (range 26 to 42) with no significant difference between the sites (see Table 8.8). Singletons (N=990) had a significantly higher mean gestational age than that of the small number (N=10) of twins (mean gestational age in weeks: singletons 39.3; twins 34.4, $p<0.000$).

Defined as a birth prior to 37 weeks, overall 82 infants (8.2%) were premature including 8 of the 10 twins, with a rate of 7.4% for singletons. There was a wide variation in the singleton prematurity rate between sites, ranging from 4.4% to 9.6%.

Table 8.8 - Mean gestational age and prematurity by site

Site	N	Mean gestational age (weeks)	Range	N (%) Premature	N (%) Premature, singletons
1	85	39.0	26 - 42	7 (8.2)	7 (8.2)
2	97	39.1	26 - 42	10 (10.3)	10 (9.5)
3	134	39.3	28 - 42	9 (6.7)	9 (6.7)
4	116	39.7	28 - 42	7 (6.0)	5 (4.4)
5	89	39.4	33 - 42	6 (6.7)	6 (6.7)
6	78	39.5	29 - 42	7 (9.0)	7 (9.0)
7	92	38.8	27 - 42	14 (15.2)	8 (9.3)
8	107	39.4	35 - 42	6 (5.6)	6 (5.6)
9	108	39.4	35 - 42	7 (6.5)	7 (6.5)
10	94	39.2	28 - 42	9 (9.6)	9 (9.6)
Total	**1000**	**39.3**	**26 - 42**	**82 (8.2)**	**74 (7.4)**

Birth weight and Low Birth Weight (LBW) rate

The mean birth weight was 3210 grams (range 936 to 4940) with little difference between sites (see Table 8.9); twins were significantly lighter than singletons (mean, twins 2037 grams, singletons 3221 grams, $p<0.0001$). Defined as less than 2500 grams, 100 (9.9%) of the infants were low birth weight (LBW), including 8 of the 10 twins. Excluding twins the overall rate of LBW for singletons was 9.2% with no significant difference between sites (see Table 8.9). This is marginally higher than the LBW rate for mothers under 20 recorded for England and Wales in 2000, which was 7.7% for singletons.

Table 8.9 - Mean birth weight and Low Birth Weight (LBW) by site

Site	N	Mean weight (grams)	Range	N (%) LBW	N (%) LBW, singletons
1	87	3268	1600 - 4564	6 (6.9)	6 (6.9)
2	98	3137	979 - 4455	11 (11.2)	11 (11.5)
3	139	3366	1250 - 4940	11 (7.9)	11 (7.9)
4	116	3212	1247 - 4309	13 (11.1)	11 (9.6)
5	89	3142	1725 - 4430	9 (10.1)	9 (10.1)
6	78	3249	1049 - 4480	6 (7.7)	6 (7.7)
7	92	3105	936 - 4706	13 (14.1)	7 (8.1)
8	106	3149	1840 - 4451	10 (9.2)	10 (9.2)
9	110	3112	1609 - 4060	11(10.0)	11(10.0)
10	94	3311	1588 - 4678	10 (10.6)	10 (10.6)
Total	**1009**	**3210**	**979 - 4940**	**100 (9.9)**	**92 (9.2)**

Ninety one infants (9.0%) had spent time in SCBU (including all but one of the twins; see Table 8.10) and information about the length of stay was provided for 80, with an average of 15.7 days (range 1 to 128).

Table 8.10 - Time in Special Care Baby Unit (SCBU) by site

Site	N	N (%) SCBU	N (%) SCBU, singletons	Mean number of days (for those with any SCBU)
1	87	7(8.0)	7 (8.0)	14.9
2	98	8 (8.2)	6 (6.3)	20.7
3	139	7 (5.0)	7 (5.0)	15.7
4	117	9 (7.7)	7 (6.1)	10.1
5	89	10 (11.2)	10 (11.2)	11.1
6	78	6 (7.7)	6 (7.7)	19.6
7	92	17 (18.5)	12 (14.0)	23.9
8	109	9 (8.3)	9 (8.3)	16.7
9	110	10 (9.1)	10 (9.1)	8.3
10	94	8 (8.5)	8 (8.5)	12.9
Total	**1013**	**91 (9.0)**	**82 (8.2)**	**15.7**

Demographic characteristics and infant status

Maternal age

Maternal age was not related to gestational age at birth, prematurity, birth weight, low birth weight or the need for their infants to spend in SCBU (see Table 8.11).

Table 8.11 - Gestation, prematurity, birth weight, low birth weight (LBW) and time in SCBU by maternal age at last menstrual period

Age group	N	Mean gestation	N (%) premature	Mean birth weight	N (%) LBW	N (%) In SCBU
13-15	122	39.4	8 (6.6)	3197.3	10 (8.1)	6 (4.9)
16-17	398	39.3	37 (9.3)	3212.0	41 (10.2)	37 (9.2)
18-19	393	39.3	32 (8.1)	3211.2	38 (9.5)	39 (9.8)
20-24	87	39.2	5 (5.7)	3208.9	11 (12.4)	9 (10.1)
Total	**1000**	**39.3**	**82 (8.2)**	**3209.6**	**100 (9.9)**	**91 (9.0)**

Ethnic group

There was a small significant relationship between ethnic group and infant birth weight (F 5.10, $p<0.000$), with babies of Asian mothers significantly lighter that those of white mothers ($p<0.05$; see Table 8.12). There was a marginally significant ethnic group difference for LBW ($p = 0.10$), the rate for Asian infants the highest at 16.7% and the rate for white infants the lowest at 8.5%. There were no significant differences between ethnic groups for gestational age, prematurity, or placement in SCBU but numbers are small when broken down by ethnic group (see Table 8.12). It appears that the rate of prematurity is particularly low for black mothers.

Smoking at intake

Infants of mothers reporting smoking at intake were delivered at similar gestations, there was no increased likelihood of prematurity, being of low birth weight or spending time in SCBU. However there was a significant effect of mean birthweight according to smoking status (F 5.73, $p <.01$) in that infants of both mothers reporting smoking of 1 to 4 cigarettes per day and those reporting 5 or more per day were significantly lighter than infants of non-smoking mothers (see Table 8.13).

Table 8.12 - Gestation, prematurity, birth weight, low birth weight (LBW) and time in SCBU by maternal ethnic group

Ethnic group	N	Mean birth weight (grams)	LBW (%)	Mean gestational age (weeks)	Premature (%)	Time in SCBU (%)
Asian	66	2969.8	11 (16.7)	39.1	7 (8.3)	7 (10.6)
Black	78	3197.1	9 (11.0)	39.5	2 (2.5)	4 (4.9)
Mixed	49	3036.9	8 (16.3)	39.2	5 (10.2)	4 (8.2)
Other	15	3093.3	2 (13.3)	39.4	1 (6.7)	0
White	777	3242.9	66 (8.5)	39.3	64 (8.3)	72 (9.3)
Total	**985**	**3208.5**	**96 (9.7)**	**39.3**	**79 (8.1)**	**87 (8.8)**

Table 8.13 - Gestation, prematurity, birth weight, low birth weight (LBW) and time in SCBU by reported maternal smoking at intake

Age group	N	Mean gestation	N (%) premature	Mean birth weight *	N (%) LBW	N (%) In SCBU
No smoking	547	39.4	39 (6.8)	3267.9	50 (8.6)	49 (9.0)
1-4 per day	126	39.0	14 (10.9)	3120.3	16 (12.4)	8 (6.3)
5+ per day	208	39.2	20 (9.0)	3156.0	23 (10.2)	21 (10.1)
Total	**881**	**39.3**	**73 (7.9)**	**3220.7**	**89 (9.5)**	**78 (8.9)**

C. Breast feeding

Data were available from infant birth forms about breast feeding for 1006 clients, almost two thirds of whom (632, 62.8%) were reported to have initiated breast-feeding. Rates varied widely between the sites, from only just over one third in site 1 to more than 80% in site 8, with two other sites close to 80% (see Table 8.14).

Table 8.14 - Rates of any breast feeding at birth, 6 weeks and 6 months by site

Site	N Birth	N (%) Initiated breast feeding	N 6 weeks	N (%) Breast feeding	N 6 months	N (%) Breast feeding
1	87	33 (38)	74	13 (18)	45	1 (2)
2	97	61 (63)	92	10 (11)	79	4 (5)
3	139	71 (51)	135	12 (9)	108	3 (3)
4	115	64 (56)	104	24 (23)	78	11 (14)
5	92	65 (71)	85	22 (26)	59	6 (10)
6	77	60 (78)	71	15 (21)	58	3 (5)
7	89	48 (54)	85	14 (17)	64	4 (12)
8	105	90 (86)	76	40 (53)	34	9 (27)
9	113	90 (80)	95	45 (47)	71	25 (35)
10	92	50 (54)	80	10 (13)	56	2 (4)
Total	**1006**	**632 (63)**	**897**	**205 (23)**	**652**	**68 (10)**

The Department of Health reports from the most recent Infant Feeding Survey (DH, 2008) that in England 32% of women in the routine and manual socio-economic group breastfeeding beyond six weeks, compared with 65% in managerial and professional groups. The rates for this group, predominantly disadvantaged and also young, are promising. Information collected at 6 weeks was present for a smaller number (897) and of those almost one quarter (205, 23%) of them were still breastfeeding, representing 32% of those who initiated breast-feeding (see Table 8.14). For those who maintained breastfeeding for less than 6 weeks (and for whom there was information, N=317 out of 358) they most frequently breast fed for one (170, 54%), two (44, 14%) or three weeks (40, 13%). Of those with information at 6 months (652) a small proportion (68, 10%) were still giving their infant

breast-milk. Numbers are small per site so rates are unreliable indicators but wide variability appears to be present, consistent with the pattern at previous time points, from rates as low as 2%, five sites with rates below 10%, but 2 sites (8 and 9) with more than a quarter of clients breastfeeding at 6 months.

Site variability in breast feeding was partly related to the ethnic composition of the clients, since it was much more likely that mothers of any ethnic minority background – and particularly Asian or Black - would breastfeed than white mothers at each of the three time points (see Table 8.15).and a greater proportion of clients in sites 8 and 9 were from minority ethnic groups (Barnes et al., 2008).

Table 8.15 - Breast feeding rates by maternal ethnic group

Ethnic group	N	N (%) Initiated breast feeding	N 6 weeks	N (%) Breast feeding	N 6 months	N (%) Breast feeding
Asian	68	67 (99)	60	42 (70)	50	21 (42)
Black	78	75 (96)	69	49 (71)	40	15 (38)
Mixed	49	39 (80)	42	14 (33)	31	6 (23)
Other	15	14 (93)	12	7 (58)	7	3 (43)
White	773	422 (55)	697	88 (13)	518	21 (4)
Total	**983**	**617 (63)**	**880**	**200 (23)**	**646**	**67 (10)**

Breast feeding was also related to maternal age with younger mothers less likely to initiate breast feeding and, once initiated, mothers aged 18 or more were particularly likely to sustain breast feeding (see Table 8.16).

Table 8.16 - Breast feeding rates by maternal age group

Age group	N	N (%) Initiated breast feeding	N 6 weeks	N (%) Breast feeding	N 6 months	N (%) Breast feeding
13-15	121	64 (53)	106	12 (11)	73	5 (7)
16-17	392	233 (59)	355	68 (19)	248	13 (5)
18-19	403	271 (67)	354	96 (27)	269	42 (16)
20-24	90	64 (71)	82	29 (35)	62	8 (13)
Total	**1006**	**632 (63)**	**897**	**205 (23)**	**652**	**68 (10)**

D. Experience of abuse

Information was available at intake about abusive relationships for the majority of the clients (1026) and overall just under one third (326, 32%) responded yes to the question of whether they had ever been emotionally or physically abused by someone important to them. The rate was similar across most sites but ranged from 17% to 46% (see Table 8.17). The question is repeated at 36 weeks, relating to the time since FNP began, and then again when their baby is 12 months old. However, it is not really possible to compare the rates since at intake the question covers lifetime abuse up to that point in time, at 36 weeks it covers the 4 to 5 months since FNP was offered and when the baby is 12 months it covers the previous 12 months, since the baby's birth.

The rate of being slapped, hit or kicked is more open to comparison in that at intake clients are asked if this has taken place in the 12 months prior to receiving FNP, to which just under one quarter responded 'yes' (238, 23%) and when they were asked again at 36 weeks gestation after 4-5 months, the proportion who reported similar experiences in the time since receiving FNP was lower, at 9% (see Table 8.18). Multiplying the rate by 2.9 (assuming that

the average time between intake and 36 weeks gestation is 18 weeks) to make it comparable to the intake report it is about the same at 25%. For the small number who were asked again when their infant was 12 months old - this time about the year since their baby had been born, so directly comparable to the intake time period - the rate (21%) was not significantly different to that reported at intake.

Table 8.17 - Rates of emotional or physical abuse during pregnancy and infancy

Site	N Intake	N (%) Yes ever	N 36 weeks	N (%) Yes since FNP	N 12 months	N (%) Yes since baby's birth
1	95	24 (25)	81	7 (9)	15	5 (33)
2	83	33 (40)	69	13 (19)	33	12 (36)
3	155	48 (31)	138	12 (9)	47	8 (17)
4	112	36 (32)	96	15 (16)	32	4 (13)
5	107	34 (33)	72	8 (11)	30	9 (30)
6	87	40 (46)	78	18 (23)	24	10 (42)
7	101	40 (40)	89	15 (17)	24	6 (25)
8	88	15 (17)	68	8 (12)	15	2 (13)
9	124	32 (26)	106	14 (13)	20	0
10	74	24 (32)	62	8 (13)	22	5 (22)
Total	**1026**	**326 (32)**	**859**	**118 (14)**	**262**	**61 (23)**

Table 8.18 - Reports of being hit, slapped, kicked or otherwise physically hurt during pregnancy and infancy

Site	N Intake	N (%) Yes In past year	N 36 weeks	N (%) Yes since FNP	N 12 months	N (%) Yes since baby's birth
1	95	23 (24)	81	8 (10)	15	5 (33)
2	83	26 (31)	68	5 (7)	33	7 (21)
3	155	43 (28)	137	11 (8)	47	8 (17)
4	112	23 (21)	96	10 (10)	32	4 (13)
5	107	19 (18)	72	5 (7)	30	8 (27)
6	87	22 (25)	78	10 (13)	24	7 (29)
7	101	28 (28)	88	8 (9)	24	5 (21)
8	88	22 (25)	68	2 (3)	14	3 (21)
9	124	19 (15)	106	9 (9)	21	2 (10)
10	74	13 (18)	62	6 (10)	21	5 (24)
Total	**1026**	**238 (23)**	**856**	**74 (9)**	**261**	**54 (21)**

E. Client judgements about the impact of FNP

In telephone and face to face interviews clients were asked to indicate, on 10 point scales, the extent to which they thought that receiving the FNP programme had made a difference – first to their pregnancy and then to the way that they had cared for their baby. A score of 1 would signify that they had not learned anything new and had lots of other support, while a score of 10 would signify that FNP had 'made all the difference in the world, before being offered FNP I was not sure how I would cope'.

They were generally positive about the extent of its impact, with a mean score of 8.6 for the difference that FNP made during pregnancy and a mean score of 8.5 for the difference it made during infancy, caring for their baby. From Figures 8.1 and 8.2 it can be seen that the majority rated the difference as either 8, 9 or 10 (pregnancy 8, 22%, 9, 17%, 10, 43%; caring for baby 8, 22%, 9, 14%, 10, 43%).

Figure 8.1 - Distribution of client ratings on a scale from 1 to 10 of FNP making a difference in pregnancy

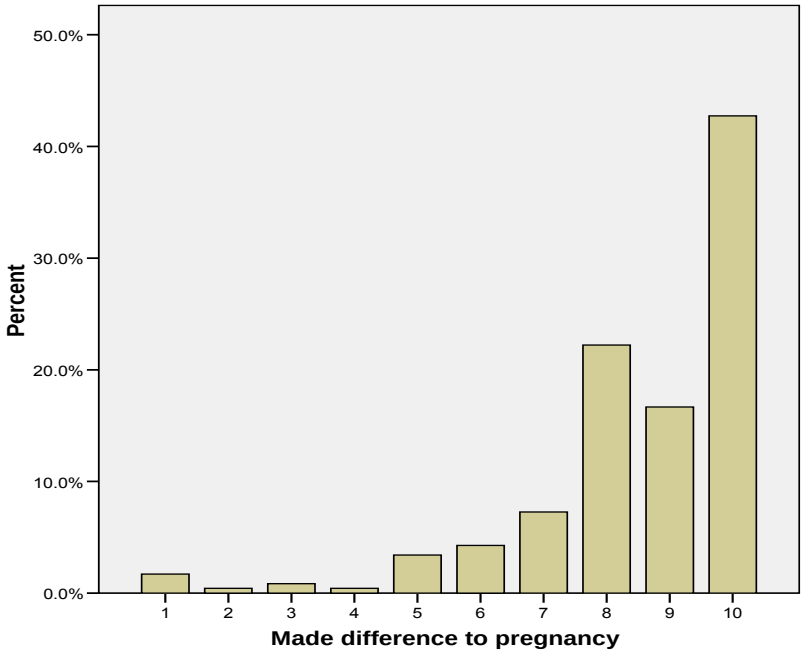
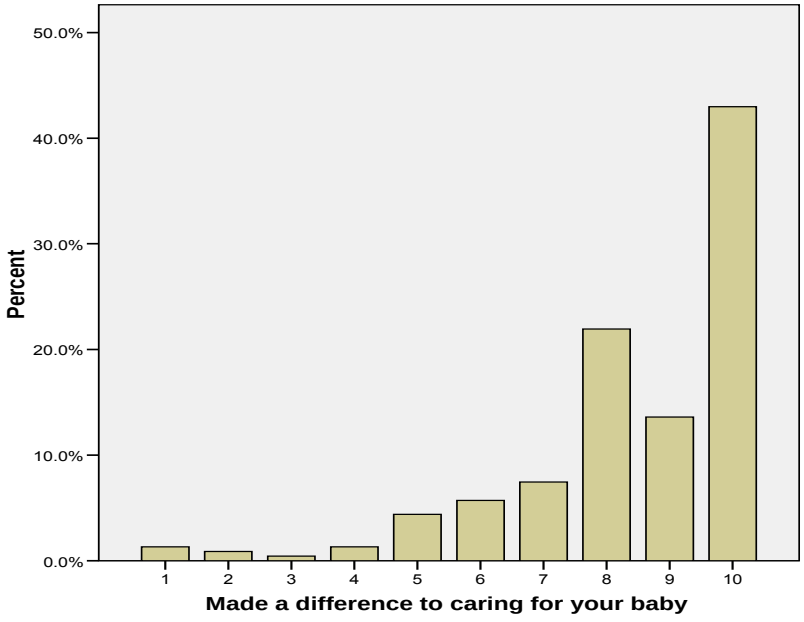


Figure 8.2 - Distribution of client ratings on a scale from 1 to 10 of FNP making a difference to caring for their infant



Clients were also asked during interviews whether or not they would endorse a series of statements (see Table 8.19) and almost all (231, 96%) agreed that FNP had helped them to be confident as a mother, with almost as many indicating that the programme had taught them how to keep their baby amused and how to interpret their baby's crying. In terms of their own personal development almost all said that it had helped them when they felt sad or stress and that it had been important in thinking about contraception. About two thirds considered that the programme had helped them to think about the need for gaining more educational qualifications or a job, and the importance of reducing their smoking. Interestingly fewer than half (41%) indicated that they would not have breastfed without FNP.

Table 8.19 - Perceived effect of receiving FNP on parenting, from client interviews

Effect of FNP	Total N	Yes N	Yes %
FNP helps me to be confident as a mother	241	231	95.9
I have learnt with FNP how to keep my baby amused	237	221	93.2
I have learnt to understand what my baby's crying means	237	219	92.4
FNP has helped when I feel down, sad or stressed	236	215	91.1
FNP helped me to think about the need for contraception	235	205	87.2
Thanks to FNP I am thinking about getting more education	226	158	69.9
I gave up / cut down on smoking thanks to FNP	129	90	69.8
FNP helps me to get on better with my baby's father	187	120	64.2
Thanks to FNP I am thinking about getting a job	213	136	63.8
I would not have breastfed without FNP	152	63	41.4

F. Use of Children's Centres

One important aspect of the FNP is to connect clients with other services in the local community, and also other parents with young children. Sure Start Children's Centres aim to provide a range of services for parents with children under the age of 5 and their local presence means that they represent a good location for meeting up with other local parents. Knowledge of FNP by Children's Centre managers is described in Chapter 6. Client interviews asked about whether or not there had been any visits to Children's Centres, whether or not the FN had suggested the visit and the main services used at the centre, selecting from a list.

Combining the respondents to the telephone interviews (N=98) and those with a 6 or 12 month infant interviewed at home (N=148) more than half (146/246, 59%) had not been to a Children's Centre at all. Just under a third (73/246, 30%) had been to a Children's Centre in the previous three months and a further 11% (27) had visited one at some point, though not within the previous three months. Centre visits had been suggested by the FN for almost one third of those interviewed (79/246, 32%) and 13% of the clients (33) had been accompanied to the Children's Centre by their FN. This reflects the discussion in Chapter 6 of integration of FNP into Children's Centres, which is present in some sites but not others, depending in part on the strength of plans for joint commissioning.

The main reasons for visiting a Children's Centre were for a mother and baby play session (56, 23%), infant massage (18, 8%), to attend a health clinic (12, 4.9%) or to use drop-in childcare (11, 5%). The remaining possible services on the list were visited by fewer than 3%; toy library (2%), a specialist appointment (2%), equipment loan (2%), midwife (2%), breastfeeding group (2%), immunisations (1%) and health visitor (1%).

G. Referrals for other services

After each home visit, on the Home Visit Encounter Form, FNs record any referrals that they make for the client to outside agencies. Almost three quarters (943/1304, 72%) of the clients had been referred to at least one agency, the mean number of referrals overall being 3.5. The most frequent type of referral was financial, particularly for financial assistance related to healthy eating (any financial assistance 39%; healthy start/other food scheme 27%; see Table 8.20).

Referrals had been made for just over one third of clients (35%) in relation to their own health care needs, with referrals for just under a quarter for the health of their infant (23%). Housing referrals were also made for just over a quarter (27%). Referrals for substance use or abuse - principally smoking cessation were also made for almost one in 10 of the clients, as were

social care referrals, divided mainly between domestic violence and safeguarding. Whilst not as frequent, referrals were made for educational programmes, job training and child care indicating that referrals could be linked with all of the five content domains of FNP.

Table 8.20 - Main types of referral made by FNs to other agencies, for all clients enrolled in FNP, at any time up to February 2009 (N=1304)

Type of referral	N	%
Any financial assistance	503	39
- Financial, Healthy Start / Food scheme	350	27
- Financial, maternity pay / grant	195	15
- Financial, Income Support	120	9
- Financial, housing benefit	83	6
- Financial, unemployment benefit	80	6
Health care services, client	460	35
Housing	345	27
Health care services, infant	296	23
Childbirth education	141	11
Any substance use / abuse	113	9
- Substance use, smoking cessation	101	8
- Substance abuse (drugs)	13	1
- Substance abuse (alcohol)	6	.5
Citizen's Advice Bureau	108	8
Any social care	108	8
- Social care, domestic violence	57	4
- Social care, safeguarding	53	4
- Social care, child in need	12	1
Mental health	93	7
Injury prevention	72	6
Breast feeding support	68	5
Any education programme	67	5
- Education programme, GNVQ	45	3
- Education programme, alternative high school	22	2
- Education programme, home tuition	12	1
Job training	59	5
Child care	47	4
Developmental, child	37	3
Legal services	32	3
Sexual health	28	2

H. Parenting questionnaire

The randomised controlled trial of FNP that has recently been initiated depends for its success to a certain extent on the responsiveness of FNP clients to being interviewed in their homes and answering detailed questions about themselves and their children. As a pilot exercise, home visits to clients with a 6 month old or 12 month old infant included several questionnaires that might be useful in an evaluation. The purpose was to see first of all whether they would agree to these types of question and in particular whether they would report any adverse types of parenting, or whether any evidence of problems with parenting could be observed.

Parenting was examined with two widely used instruments, one a questionnaire and the other observational. The Adult-Adolescent Parenting Inventory (Bavolek, 1984) covers four domains often associated with abusive parenting: inappropriate expectations (e.g. Parents should expect their children to feed themselves by 12 months, Children who are five months old should be able to know what their parents expect from them); Lack of empathy (e.g. Young children who feel secure often grow up expecting too much, Children who are given

too much love by their parents grow to be stubborn and spoiled); Physical punishment (e.g. Children will learn good behaviour through the use of physical punishment, Parents have a responsibility to spank their children when they are naughty) and role reversal (e.g. Young children should be expected to hug their mum when she is sad, Young children should try to make their parents life more pleasurable). Respondents are asked if they agree or disagree or are uncertain on a 5-point scale.

All but three of those interviewed (N=148) were able to complete the questionnaire (those who did not had limited spoken English) and their responses indicated that the measure was being answered consistently, as evidenced by the internal consistency statistic for each subscale. Cronbach alpha indicates how consistently replies are made, in the assumption that questions in a subscale cover related aspects of the same concept, and a value as close as possible to 1 is preferable, with at least a value of .80. These Cronbach alpha values were all excellent: inappropriate expectations .81; lack of empathy .85; physical punishment .88, role reversal .90.

AAPI scores are converted to ‘standard ten’ or ‘sten’ scores (ranging from 1 to 10 with a mean of 5.5), the lower the sten score the less good the parenting. The mean scores for this small group indicated that generally their parenting is slightly above average (inappropriate expectations 7.6, lack of empathy 5.9, physical punishment 7.0, role reversal 7.5). These scores indicate more appropriate views about parenting that parents identified as being at risk of child abuse and taking part in a trial (Barlow, personal communication). However, while these FNP clients have been receiving the programme since pregnancy it must be emphasised that their functioning cannot be related necessarily to receiving FNP without a comparison group recruited in a similar way, with the same characteristics, but not receiving FNP, and without knowing what their baseline scores would have been prior to receiving the FNP support.

Parenting was also assessed by two observational scales from the HOME inventory (Caldwell & Bradley, 1984), a measure used in many studies and particularly with disadvantaged populations. The two subscales were maternal responsivity (e.g. Did parent respond verbally to child's vocalisations - sounds or words? Did parent spontaneously praise child at least twice?) and harsh parenting (e.g. Did parent scold or criticise child during visit? Did parent express annoyance with or hostility toward child?) with all items competed as yes or no. Again the internal consistency of the observer ratings was high - Cronbach alphas: Responsivity .75; harsh parenting .79. In addition the validity of interviews and observations is indicated in their relationship, with the correlation between observed harsh parenting and parental responses to the AAPI Physical Punishment subscale being significant (r .27, p=0.002).

The pattern of responses suggests that both these methods of studying the potential for parenting could be used with similar clients either in clinical practice or more specifically in the RCT currently underway.

Conclusions

Can FNP make a difference? The clients certainly believe that it can and that it has, though of course they do not know how they might have coped without the programme. Some of the results indicate that it might be difficult to effect change - infant births status does not seem that different to what would be expected of children with mothers in this age group having a first child, but this mirrors the research evidence from the US (Olds, 2006). Smoking behaviour after the baby’s birth appears to be similar to or possibly higher than that during pregnancy, but data from other comparable mothers during and after pregnancy is needed to see whether this is unusual. In addition information is not available for sufficient numbers to draw any definite conclusions.

There is no evidence that the clients are experiencing less physical abuse, from partners or other significant adults, but again this preliminary finding reflects results from trials in the US, where the presence of domestic violence proved a barrier to client progress (Eckenrode et al., 2000). What the information in this chapter does show is that there is a strong hope among the FNs and the clients that it will make a difference and that there are a number of ways that it could improve both the development of the infants and the well-being of the mothers and fathers. It will be some time before this can be demonstrated definitively in an English population, in the ongoing RCT.

Chapter 9 - Case Studies: Lives changed

Nine case studies were conducted, selected in consultation with local teams to reflect clients who had made substantial progress, often in situations where expectations had been low, and to investigate how clients had been changed by their FNP experience. Researchers interviewed the clients, in some cases their partners, their FNs, the supervisors and other practitioners who were involved with the family. The majority of the clients chosen for these enquiries had complex needs: living in care, from families known to be chaotic, with histories of social services involvement. Drug use and domestic violence could feature in their relationships, some were homeless and most had experienced poor or interrupted mothering themselves. Summaries of the particular features of the case studies are given here first, identifying the theme that led to their selection, then themes encapsulating the main outcomes that they and their FNs have identified are summarised and finally more details of progress and outcomes are given client by client.

A. Details of clients

Client A

Theme: Breaking the cycle of bad parenting

The Client: She is from a difficult family background, as a young child her *"overpowering"* mother had a violent relationship with her father. She has a good relationship with her stepfather but the violence she experienced as a child may be the route of the anxiety, low self esteem and depression she has struggled with as a teenager.The client feels that her experience of being parented is not what she wishes to model with her own child. She has qualifications in hairdressing. The client joined FNP at 17 when 3 months pregnant. After a long labour, the client's son had a normal delivery.

The Family Nurse on the Client: The FN feels that on the surface this client didn't appear as needy as some other clients and had not attracted the attention of other agencies. As a relationship between them quickly formed, she realised that there were many issues troubling her that were not obvious. *"It's been like building up a friendship; you are wary to start with, then the more she has got to know me, she has engaged better*…i*t has worked out well because it has opened a box, and allowed her to talk about it. I referred her to a CPN and she attended some groups on anxiety and panic attacks".* Her strengths are *"her motivation, she is motivated to do things. She tries to do the best she can. If there is a better way to do things, she is open to suggestions."*

The Family Nurse on the Partner: The client is no longer in a relationship with her baby's father as they separated shortly after he was born; however the father has contact with the child twice a week. He has not met the FN and has not looked at any of the dad's materials, despite the client's efforts.

Client B

Theme: Homeless client and partner

The Client: the client and her partner were homeless, "sofa surfing" with various friends and relatives and the FN thought she might be difficult to engage. The couple have regrets about their lack of education and would like their son to have a "better life". She joined aged 15, when 3 months pregnant. Her partner has been present for all but one of the FNP visits.

The Family Nurse on the Client and Partner: *"She is only 16 and relies very heavily on [her partner]… she also doesn't have a good opinion of her own self-worth. She feels as if she is overweight, her body image is not good. In the past, she has been known to self-harm. She hasn't had the best of upbringings and most of her brothers and sisters have gone through the homeless system."* The FN also describes her as resilient, *"She is determined that she will make something of herself, she left school with no qualifications, then got very low grades in her GCSEs but she decided that, once [her child] was nearly a year old, she would enrol in college".* During her first visit, the FN was surprised to discover that [her partner] was 21, as he appeared to be much younger. He has no qualifications and is unemployed. *"I think [the client] was doing it because [her partner] thought it was a good thing because there were things for dads, but she has realised she has benefited from it, she is really sitting down and taking note". "I find that [her partner] is actually rather an articulate young man… he is really taking on board how a child learns, and to not get things that are too expensive."* The FN *"wasn't sure they would stay in the programme, because they have such a lot going on at the time"*, but they are *"quite good at being in for their visits"* and are *"very, very attentive to the stuff that you are doing"* during visits. They will text to let her know if they will not be in for a visit. She describes their commitment to the programme as "incredible, especially when you consider that [the client] is only 16."

Client C

Theme: Initially not engaged

The Client: The client became pregnant at 18. In the past she used drugs and had mental health problems. The baby was on the child protection register because of him and family members of the client. The client now lives in a flat with her baby and sees many friends.

The Family Nurse on the Client: "*From 16 she was living in hostels, sofa surfing and was evicted for antisocial behaviour from many hostels. Whilst pregnant she was sofa surfing and trying to rekindle her relationship with her mother… [but] realised [her mother] was not really interested… her father is also still angry with her about her behaviour during her teenage years. She has some contact with one sister and a very supportive relationship with her… Her wider family network has negative beliefs about criminality and do not really support her".*

The Family Nurse on the Partner: Her ex-partner was abusive and has a criminal record for violence with a previous partner. *"Her ex-partner is very controlling and is now allowed to see the baby… but no unsupervised visits."*

Client D

Theme: Client and partner were both in care

The Client: The community midwife referred this client: she came from the care system, was NEET and had had behaviour problems. The client was brought up by an alcoholic mother in a large, chaotic and unstable household. Client describes her upbringing as *"absolutely dreadful"* with no-one there to care for her or about her and recognises that there were no boundaries to her behaviour. She got into drugs, drinking heavily and stopped attending school. She was taken into care at 16. Her baby is one year old.

The Family Nurse on the Client: The client got off to a good start with the programme but was difficult to engage early on. Contact was difficult but the FN persevered and found different ways to contact and re-engage her. *"If I was a health visitor I would have lost her because there is no way that I would have been able to put the time and the effort in to re-engage her ... This was someone who was reluctant to engage with other agencies, so before she could start to take on board the FNP messages there had to be trust and confidence."*

The Family Nurse on the Partner: At 16 she met her current partner who had also been in care, is quite a bit older than her and is an alcoholic who swears continuously.

Client E

Theme: Difficult relationship with her own mother

The Client: She joined the FNP aged 15 when 5 months pregnant. She has a difficult family background, her mother regularly abused alcohol and drugs and the client was responsible for her two sister's care as her mother was *"not in a fit state".* The house was too small for them (client's mother had to sleep on the sofa*). "Me and mum used to row all the time, I couldn't handle it no more so I got her [FN] to write a letter to the council which then got me into the mother and baby unit… getting me out the house was the best bit".* With the help of her FN she was able to get a place in a mother and baby unit for 6 months when pregnant and then moved into her present flat, which she had been in for 7 weeks. She has GCSE qualifications and started 6th form but had to give up when she moved into her new flat as the school was too far away. After a 9 hour labour the client had an emergency Caesarean, she had an infection afterwards but says that it was all right.

The Family Nurse on the Client: *"I only had one visit and recruited her straight away; the client said she needs all the help she could get. …She was always really keen; she did every single piece of work during pregnancy."* The FN describes the clients strengths as *"wanting what's best for her and her child …She's not had any good parenting so…I think she's gone on the retaliation, she doesn't want to be the sort of mother her mother was so she's doing the best she can for her and her baby"*

The Family Nurse on the Partner: The client is not in a relationship with the father but has a boyfriend.

Client F

Theme: Child protection issues concerning infant's father

The Client: Was 15 years old when she became pregnant. The baby was initially taken into care but is now living with the client. At the time of interview the client was 17 and her baby was 7 months, living in sheltered housing with a resident warden. The client is still in a relationship with the baby's father although they do not live together. He was living in the UK as an illegal immigrant, but had just been granted permission to stay in the UK. There were early concerns that he might abscond with the baby who remains on the child protection list and there were initial anxieties about his relationship with the client because of incidences of domestic violence and controlling behaviour. When the client entered the ante-natal system she was flagged up as a case for concern. The midwifery services and the senior child protection officer asked the FN to take on the case. The client thought the programme sounded 'really good' so was happy to meet the FN.

The Family Nurse on the Client: The FN commented that during pregnancy the client went off the rails but since she has had the baby she has only missed one visit and is engaged with the programme. She can now sort some things out for herself, she doesn't react straight away to a situation by phoning or texting, and when she gets stuck with sorting out a problem she will ask for help. While the baby was in foster care the client and her partner were allowed supervised visits with the baby at a 'contact' centre. After three months and a number of assessments the baby was allowed to return to the client. Some of the FN visits take place at the contact centre and the client's partner is involved in these visits.

Client G

Theme: Chaotic family background, looked after client.

The Client: She is 17 years old and her baby is one. She lives in a children's home as she is one of seven children and comes from a chaotic family known to the local authority. Client has no contact with her father but sees her step father - who no longer lives with her mother. She met her baby's father at the children's home. She contacted the Family Nurse on her own initiative, since the FN had worked with her friend "*My family nurse started coming when I was pregnant…We went through how the baby develops and what not to do when you are pregnant…She says if you are scared there is no need to be as we can talk about it. This made me feel a lot better. My nurse has helped me think about my life and told me if I want to talk about anything that has happened to me I can do but I don't have to if I don't want to."*

The Family Nurse on the Client: *"She has engaged brilliantly with the work. She has problems with reading and writing so I have to do some of the work for her. She works especially well with PIPE as this allows you to convey a powerful message that is simple to understand. The only thing is I am limited to how much I can do at a time as she will switch off if I do too much or if there are lots of pieces of paper. So I have to do more practical things with her, like for the weaning we did some cooking together."*

The Family Nurse on the Partner: *"I used to see the dad when she was pregnant. He was fantastic at engaging. He would help her with the work. Since he had his job he has been tired and their relationship has deteriorated since they have had the baby. He loved all the baby cues and the interactive dolls. He loved showing me all the work he had done. Seeing him with his daughter is lovely as he has bonded with her and was using the information he has learned…"*

Client H

Theme: Isolated mother lacking confidence

The Client: *"I was 18 years when I first started with my nurse, I am 19 years now. I've got my GCSE's (A-C's x6) and one A Level. I am thinking about going back to college. I was pregnant when I started at college and had to leave. I live with my mum and dad and brother."* She joined FNP in her first trimester. *"The birth was very straightforward and I had no complications. "I first met my nurse through the midwife at the doctor's surgery. The nurse sent me a letter and I phoned and made an appointment. When she first came around she seemed a lot friendlier than the other health professionals. She is more like a friend and more personal. I picked this up at the beginning and felt comfortable with her."*

The Family Nurse on the Client: When I first saw her she was very pleasant and quite just sorted of nodded and said yes *"The client has always been in when I have visited. If she has to cancel she will either ring or text me to rearrange. Over time she has got better at ringing me. At one time she would have stopped in but now she is more active and going out and has got things she is interested in. So now she rings me up a lot more to rearrange appointments. Initially she might have felt that she had to stay in if we had an appointment but now she has really changed as a person and has got more confidence so is out and about".* The client's mother has depression and her father has been unemployed for over a year.

Client I

Theme: Client with mental health problems and family responsibilities

The Client: Client was a carer for her sick mother and her two siblings from the age of 11 years. She also had problems with the baby's father, previously suffered from depression, had worries about bonding with the baby and getting post natal depression. The client started the FNP programme when she was 20 and around 7 months pregnant. The client had an emergency Caesarean and the baby had meconium in his lungs. *"When I got pregnant I had my own sort of difficulties in my pregnancy because I didn't feel connected to the pregnancy and I didn't know how I was going to feel and I've had a history of depression so I was worried that I'd end up with post natal depression."* She has GCSEs and has done an Openings course at the Open University.

The Family Nurse on the client: She used to work part time as a sales assistant but had recently given up this job to concentrate on looking after her baby. *"She's had a lot of difficulties with her childhood and for her it was building trust … As time went on the relationship between us got stronger … So open now, quite relaxed, the visits are just so natural when I go to see her"*. She is ambitious and doesn't want to be like her mum.

The Family Nurse on the partner: The client is not in a relationship at the moment and does not have any contact with the baby's father. She had tried for several months to get him involved. The Supervisor notes *"that they just met at a bus stop and there was no relationship there and that the father was a polygamist."*

B. Outcomes of FNP

Developing a Relationship with the Baby

In all cases the clients were said to have become attached to their child, even when, as in one case, the baby was taken into care for the first three months of life and has been on the Child Protection Register. The FNs noted that this mother-infant attachment had resulted in many of the cases in the child doing well; they believed that there was a direct link between the engagement of the mother in FNP and the wellbeing of the child:

> *"Looking at the baby and how she is progressing, not only with her social development but with her general development and what works well is that I can say how well the baby is doing but bringing it back to her* (the client's) *parenting."*

That is, there is circularity about the system, which means that the mother makes progress as the baby prospers and vice versa. Another client said:

> *"I think generally she* [FN] *has helped me become a better parent, I think that is the main thing, the biggest thing, that's the biggest gift she would have given me…"*

The continuation of this relationship with the infant and toddler reinforces the mother's confidence, expressed in one case by an ability to support and advise other young mothers:

> *"..they always ask me about what they should do, they phone me about weaning, food, when they are starting to sit up, crawl, teething…I pass that on from what I learnt from [FN]."*

In this situation the client can become a wider resource for the community of young mothers. The circularity of her own good relationship with her child can also break the tendency to repeat the poor relationship she experienced with her mother.

Improved Relationships with Fathers

In these case study examples, where fathers were involved, they often had similar backgrounds or issues to those of clients. The FNs were able to use the relationship with the baby to address these too:

> *"I used to see the dad when she was pregnant. He was fantastic at engaging, he would help her with the work. Since he has his job he has been tired and their relationship has deteriorated since they have had the baby…He loved all the baby cues and the interactive dolls. He loved showing me all the work he had done."*

In at least one case the FN was able to work with the parents as a couple, developing a trusting relationship with both:

> *"..she has always been there…she doesn't talk to you as if you are stupid, or she doesn't really use complicated terms, she speaks to you just how it is, tells you what you need to know and why you need to know it."*

Facilitating multi-agency working

FNs can act as advocates for clients with other services, notably Social Services. In one example the FN complained when she felt a social worker was bullying her client (and was impressed by the client's ability to withstand the bullying). In another example, where a baby was considered at risk, the FN has been able to liaise with the multi-agency team, which includes social worker, outreach worker from a domestic violence programme, a family support worker and a child protection officer. This has resulted in the client being able to have the child with her:

> *"I think it has had an absolutely huge impact. If you could go back to just before she had the baby and look at the very scary place she was at then with the huge risks, and the edginess of all the professionals involved, let alone herself, and see her now fully competent, with the baby in her full-time care, in the situation that she is living in, it just shows what great strength and how far she has come in the last few months. It is just amazing to see the transformation."*

However, the relationship and contact with other services can be problematic. In another case a mother reported that she did not trust her FN and felt let down by her, because she believed that she had shared information about her and her child with doctors and the Social Services department, similar to the comment described in Chapter 3 in relation to a client leaving FNP:

> *"She told Social Services and she said that they had heard it from someone else, and I know it wasn't, it was her, she went back and told them. When you tell people things in confidence you expect to keep it that way. She doesn't know that I know. There is no trust."*

Clients may be introduced to local services - like those offered by Children's Centres, as indicated by the findings for the larger group who were interviewed and summarised in section F of this chapter, and may make new relationships as a result:

> *"If my nurse had not told me about the Children's Centre I would not have gone. I did not know it existed and wouldn't have found out about it…I have met loads of other mums. Before this I did not have any friends in the area."*

Strong relationship with the Family Nurse

For these particular clients the relationship with the FN appeared to offer a source of trustworthy advice which extended beyond the child into various other elements of life. FNs had been involved in helping with practical matters like housing and contemplating training or education:

> *"Education and learning, things I wouldn't have been able to learn before I met FN. I didn't even know you could talk to a baby when it was a few weeks old, but you do and they like it, and books and things!"*

The support that starts with the baby, such as helping her to persist with something she might have given up like breast-feeding, can extend towards a sense that things like going to college might be worth persisting with as well. Clients' comments suggest that FNs provide a role model, not least in that they persist, even when a client appears to be losing interest in the programme. For a while when one of the clients was still pregnant she went through a period of missing appointments and being difficult to contact on her mobile as it was frequently turned off. She was often out of credit and failed to return calls. The FN persevered and found different ways to contact the mother. She wrote to her enclosing a fun card and a SAE. The mother responded by writing back. The FN found this strategy a good way of re-engaging the client, perhaps because it was not a 'professional' approach.

To summarise the most valued aspects of the FN-client relationship for these particular clients were:

- a source of good advice about the baby;
- willing to be asked about anything and generally available when needed;
- being able to organise practical responses (especially with housing);
- being treated as an equal (and differently from other professional services);
- not giving up;
- giving emotional support;
- being calm and friendly and helpful;
- *"Getting me out of the house was the best bit"*;
- *"You feel it's a really personal service and she helps, she's helped me through everything."*

C. Summary of outcomes for each case study

Client A

Outcomes for the Client: This client has moved into her own home and is currently doing her level 3 hairdressing qualifications at college, and will be looking for an apprenticeship shortly *"I've got both, my career and my baby, it is a lot better."* Her child goes to the college crèche, she *"hates leaving him but he loves it, being around other babies"* and acknowledges this has helped his social and motor development. The client breastfed her son until he was 4 weeks old. She is described as "breaking the cycle" of her own family background and overcoming her anxiety, and is now on the way to producing unexpected good outcomes for her own child. *"(FNP) has helped me a lot with [baby's] development, because I know how to encourage him …. he is ahead of some babies, their mums don't really spend much time with them, they get babysitters."* The client acknowledges the difference in parenting styles between herself and friends with small children: *"they shout at their babies, they don't know how to control themselves, they haven't got any patience and they don't know how to do activities,"* and the client is now a source of knowledge for other young mums. *"My friend had a baby last week, and I've been helping her with breastfeeding."*

Family Nurse predicts: *"Her self-confidence and her self-esteem has always been pretty low, but that has improved quite recently … she is a fabulous mum, a really good mum." "I think she will seek out a good relationship… and know what a healthy relationship is."* Her relationship with the father has changed from letting him *"treat her like dirt"* to *"you don't let me down, you don't let him [baby] down."*

Client B

Outcomes for Client and Partner: The couple took the FN's advice and reported themselves as homeless. They were allocated homeless accommodation and moved into a rented housing association flat, in which they can stay for the next 18 months. *"FN helped us to get this place; she wrote a letter to help us out, saying that we were homeless."* The FN gave the client a reference which helped her get a place on a hairdressing course. *"She helped [the client] to get sorted for her future"* (Partner) The client has had a work experience offer. The FN believes that FNP has helped to build the client's confidence. *"She has found her voice in the relationship. She is articulate now, even when he is out of the room, where as before, she would just sort of put her head down".* The FN hopes to help the client's partner access basic Maths and English courses as he became frustrated in the past at being unable to progress from kitchen hand. Both client and partner think the FN can help them to find work in the future, by giving references and continuing encouragement. The couple regret their lack of education and would like their son to have a *"better life".* Their son is already showing signs of being developmentally advanced. They *"make most of [baby's] food themselves, taking on board the information on nutrition, look wisely at their budgeting."*

Family Nurse predicts: *"I can see them doing really well out of FNP… They have already said that they want [the baby] to have a better life than they have had, with more consistency; they are looking forward to getting their own house. [The partner] wants to get back into catering, but he wants [the client] to get into hairdressing. They see that as their route out of the benefits trap"*

Client C

Outcomes for Client: *"At the beginning the FN had issues around social services not taking seriously that the child may be in danger from the ex-partner and other family members… Social services may not have known what was happening without FN"* (Supervisor). The father sees his son under supervision. His family has some contact with the baby. She became pregnant again by him and decided on a termination. The FN continued to try to engage the client though she was hostile and volatile at times. The client asked for help over lack of foetal movement and the immediate response of the FN and supervisor in organising a paediatric appointment persuaded the client to continue. Eventually she attended infancy visits much more regularly. *"It has helped me do a lot, it has helped me get this flat, and she has helped me with furniture and how to get on better with social services. She was telling me not to lose my temper… With my nurse I have a lot of support and it is so much better going through the council and things like that. There is that support behind you. For me the best bit of the programme is the support about my baby 100%..." "It has helped me focus on goals… If I have my heart set on something to do, do it and not leave it." "I want to go back to college to do a painting and decorating course."*

> *"The baby is doing very well, really well… He is into everything, he loves his toys, he loves walking in his walker he doesn't stop eating… he is a happy baby"* (Client).

> *"The baby has good mental health and is very happy; the baby feels secure and loved and is developing as you would hope… She has fun playing with him and laughs and smiles and meets his emotional and physical needs to a high standard."*

"She has now sorted out her contraception and is good at using some services like benefits and housing."

"When I first met the nurse I felt that people were trying to take over… I didn't want people telling me what to do… but now it is good. She was very helpful and if I needed her she was always there to ring and advise and things like that."

Family Nurse predicts: The nurse believes the worst is over for the client. The baby is no longer on the child protection register and the FN believes that she will stay with the programme until the child is two years old. She believes there may be some blips but she really does value and like FNP.

Client D

Outcomes for the Client: This client seems very determined to turn her life around.

"Looking at the baby and how she is progressing, not only with her social development but with her general development, and what works well is that I can say how well the baby is doing but bring it back to her (the client's) parenting. That is what is giving her the real boost." She stopped drinking and taking drugs when pregnant and hasn't started again.

During pregnancy she tried to stop smoking and managed to cut down, whilst she has started smoking again she doesn't allow anyone to smoke in the same room as the baby.

Through being on the programme she has realised she wanted to parent her own child in a way that was completely different to the way she was brought up. Her delivery was trouble free and despite difficulties with breastfeeding she persevered (with support from the FN) for three months. The FNP has given her the 'tools for the job'. Whilst pregnant she had intended to stay at home for a few years until the baby went to school. However within six months she had aspirations for herself and wanted to have a better life for both herself and her baby. A year down the line she is enrolled and doing very well in on a year long vocational course as well as doing a part-time job.

Outcomes for the Partner: *"Sometimes I feel that when I arrive his body language is a bit anti … but … I am engaging him all the time."* Initially both had smoked in the home but now no-one smokes in the same room as the baby. Her partner is very involved with looking after the baby and works when he can. The FN notes that *"I can see he is taking pride in her (baby), in what she is doing."*

Family Nurse predicts: The FN is realistic about the client's background and the risk that if things didn't go well she might go back to the "me, me, me, teenager", putting her own needs before the baby's. Having said that the FN does go on to say *"I feel though that she has moved on too far to slip back. She is so determined and she sees this as the perfect opportunity."*

Client E

Outcomes for the Client: The client feels that having the FN has made her more confident as a mother. *"She's made me more confident to do things with him." "[At one point] every time I went to see her there seemed to be a different boyfriend in tow and then we had a chat about introducing new people into the family especially to (child) to make sure you trust them before you bring them and let them look after children. So, I think she could have gone off the rails in that period but she pulled it back."* (FN) *"She could have lost her child actually because of her mother. There could have been safeguarding issues around that child. We [FN and supervisor] haven't spoken about her recently because she is managing well and*

[FN] is happy" (supervisor). *"She does not do so much of the sheets as she did during pregnancy but she still participates … which is all positive and Children's Centres is the latest thing." "PIPE, I think has played a really big part rather than the 'doing it' facilitators...they've helped her understand feelings and emotions ..."* (FN)

She is planning to go back to college. She also acknowledged that the FN helped her to get information about going back to college and that without her she probably would not have gone to Connexions. She continues to want to take part in FNP and plans to do a short course in hairdressing and then enrol on a health and social care course. *"I want to go into nursing"*.

Outcomes for father: He is not in a relationship with the client but the baby sees him every weekend. *"He has him, he takes him out every weekend and now and again he has him overnight."*

Family Nurse predicts: The FN sees the client's vulnerabilities as future boyfriends *"she wants somebody to love and if she gets somebody that manipulates her I'm a bit worried about how it's going to go."* The FN sees the client as very motivated and wants to do what is best for her and her child and that she will succeed. *"I think she will get her A Levels and I think she will go on to be a nurse. I think she will make a fantastic mum, the only thing that scares me is partners, partners that aren't really suitable."*

Client F

Outcomes for the Client: According to the FN "*Despite everything she has gone through she has gained maturity in the last year and a half...having the baby transformed her*. *She is on the Home Base Project she is learning the skills for independent living. Being on the Freedom Programme (domestic violence, controlling behaviour) is giving her the skills to handle difficult situations and bullying. Increase in self-esteem and confidence, reduction in stress levels."* She is said to be totally committed to her baby, has learnt how to care for him both physically and emotionally and he has been returned to her from foster care. *"I think it has had absolutely huge impact. If you could go back to just before she had the baby and look at the very scary place she was at then with the huge risks, and the edginess of all the professionals involved, let alone her herself, and see her (now) fully competent, with the baby in her full-time care, in the situation that she is living in, it just shows great strength and how far she has come in the last few months. It is just amazing to see the transformation*."

Outcomes for the Partner: He has taken the opportunities offered to him to allow him to have legal contact with his baby, and to improve his relationship with his partner, as well attending FNP sessions to learn how to care for his child. He is on the 'Chrysalis' programme (programme for domestic abuse). *"He is ticking every box and doing everything he needs to do at the moment, and seeing the interaction between him and the baby and them as a threesome is just a joy to watch."* (FN)

Family Nurse predicts: The FN feels that both the client and her partner have really addressed their issues, and now both his parents are attending their respective courses on how to address the issue of domestic violence [the baby] might be brought up in a happier environment. The baby remains on the child protection register but depending on the outcome of further assessment meetings this status may be reduced to 'child in need'. The client has aspirations for the future in terms of going to college and completing a hair and beauty course so that she can get a job.

Client G

Outcomes for the Client: She has enrolled on an NVQ course in childcare starting in September 2009. *"She has helped me think about getting some education as I now know I can get free childcare for my baby so that I can study. She told me about a course that is going off at the end of the year. It's working in a nursery and going to college. She told me about this. I did not know that I could do a course and could put my baby in a nursery while I do this."*

The client is really tuned in with her daughter so their attachment is good. Her confidence in herself has grown. She is looking to the future and feels that she can set goals and make something of her life for herself and her daughter. The baby has had some health problems and the FN has explained this to the client and helped her to access the hospital appointments. The FN has worked with the client trying to help her to understand other agencies' (social services) roles and the client has good reports from other agencies.

Outcomes for the Partner: He made some good progress and been involved positively in parenting and caring for his baby. He and the client have had arguments but have been able to resolve them.

Family Nurse predicts: She thinks that the client will need support beyond the term of FNP, but that she will stay with the programme until her baby is two.

Client H

Outcomes for the Client: *I was wanting to breastfeed anyway but I struggled with it and the only reason I carried on was because of my nurse encouraging me to keep at it. I had bleeding nipples and she was a hungry baby. Everybody kept telling me she was feeding for too long but my nurse kept reassuring me that this was okay. So I stuck through it until it got easier and my nurse spoke to me on the telephone in between visits. So then my nurse put me onto the peer support training. I did this once a week for 12 weeks and I have got graduation this week. I breast fed for four months."*

Her FN reports that she attends groups at the children's centre including a crafts and activities group. She meets other mums there and now has her own social network. Until she met these new friends she spent a lot of time at home on her own but now she is out a lot more. She likes the PIPE activities and enjoys learning about brain development. She loves to see how her baby is developing and interacting. She understands the more she puts in the more she gets out. Around the baby she is gentle. Future plans are evident and she is discussing education and employment possibilities. She is also considering how to include the estranged father in the child's future.

Family Nurse predicts: This mother will stage any future pregnancies, will become more involved in the community and probably work in healthcare. Maybe she will begin to understand the need for the father's involvement with the child, and she will remain in the FNP until the child is two years old.

Client I

Outcomes for the client: The client is positive about her achievements as a parent and in thinking about her future: *"I'm going to do better [than her own mother], I want to study, I want to show my son that he can study too and be somebody in his life."* (Client) *"In the beginning this mum was saying I don't feel like I can love this baby, I'm really scared that the baby will find out as well that I don't love him … I don't know how I'm going to bond with this baby… She said to me a few months ago, she really bonded, not until he was probably 3 or 4*

months and she said it was a gradual process for her not a sudden process but she felt if she wasn't on this programme, she didn't have me going in there and her being able to explore her own behaviour she felt she would not have been able to do it. Without FNP she doesn't know what kind of mum she would have been, she probably done the right thing for him but she's not sure if she would have come this far, I think the impact is really tremendous on her." (FN)

The FN feels that the client has now been able to detach from her role as carer of her mother and sister and has accepted that she should not pursue the father to be part of the baby's life. She has also enrolled on an Open University course. *"She [the FN] helped me to become a better parent and for me… I knew I would be able to do it practically but I didn't think I would be able to do it maybe emotionally and she's helped me to enjoy it as well as just doing the day to day chores of it … I would probably never have gone [to Children's Centre]...I wouldn't have gone to the groups where the kids play, I would have just stayed at home and been really isolated … I want to go to college next year and I want to be back at work in a different job but I want to be back at work by the time he goes to full time school. So that's really my long term goal … If I had the opportunity to actually become a FN I would, definitely."* She has become active in the Children's Centre, meeting with other mothers and children: *"My nurse introduced me to the children centre by referring me to the outreach worker who came to see me. When I first went I was really nervous but they made me feel really welcome. I started to get involved in an arts and crafts group which is also once a week and a 'Story sacks' group*."

Family Nurse predicts: *"I hope that in another year's time that we will have this mum who's going to say 'I don't know what I was worrying about last year, I can do this, I can step out, get him into nursery, I can go off to university and I feel quite all right' … I think that she has just grown so much.*"

Conclusions

The case studies were selected as examples of good, sometimes unexpected, progress and they illustrate that the FNP can be effective in what can be seen as 'high-end' cases, where young mothers are facing multiple disadvantages. Although the FN may be operating in a multi-agency situation with the majority of these clients, her role is distinctive because of its focus on the baby. This gives her a different status in the view of both client and other services. It is interesting that where this status was blurred - in the case where the client considered confidentiality had been broken - the distinct relationship was damaged. In these cases the FN has developed into the key worker for the families because she is seeing much more of them than other professionals, and because she can often by-pass historic matters that may have lead to distrust or poor relationships with professionals. The FNs have entered the clients' lives because of their pregnancies and subsequent babies. In these cases the trust that has developed has been because of the baby - the FN gives good advice, knows what to do, is reliable - and this can then carry over more widely into other aspects of the client's needs. FNs have allowed this carry over, and do not say 'I'm here for the baby, I can't help with that.' On the contrary, they have been willing to go in different directions for client and partner, with the understanding that a benefit for them will ultimately benefit the baby.

Chapter 10 - Conclusions

A. Delivery with fidelity

The first main question is the progress the programme is making in relation to attaining a level of delivery that is close to the stretch objectives recommended by the US National Service Office. The visits themselves were being delivered in a manner that was very close to the objectives. The duration of visits overall and in each site exceeds the minimum suggested duration of 60 minutes. The content covered in the visits is close to the recommended proportions, especially in pregnancy. During the infancy visits it appears that FNs are spending slightly more time on maternal health and environmental health, and less than recommended on the maternal role, which is designed to be the major focus of infancy. In addition the level of attrition, while slightly higher than the suggested level for pregnancy, was at the recommended level overall during infancy. There has been good progress in the overall proportion of expected visits completed. While the delivery in these first 10 sites has not quite reached the stretch objectives for pregnancy (80%) or infancy (65%) the overall performance is very close which is what the US National Service Office would predict for sites just becoming established. Looking only at those clients who have stayed with FNP for the entire infancy phase, their average percentage of infancy visits is very close to the stretch objective at 61%. However, the variability between sites (discussed in the next section) is important.

The issue of collecting pertinent information about clients and the visits to document fidelity and the potential for impacts is key. Examination of the forms submitted by FNs to be entered into the database shows that the rate of completion is hugely different between sites, and the monthly reports sent to the supervisors provide details of individual variability between the FNs. The supervisors have indicated that generally they do use these reports during supervision though some note that they lack confidence in interpreting them. Perhaps more supervisor training would be useful on how to do this effectively so that individual FNs are aware of why they are reluctant to collect systematic information. The supervisors will in previous work have experienced supervision related to clinical issues but may not have had to work on enhancing this kind of systematic data collection. More time might be usefully spent in group supervision looking at local figures derived from the forms, which would highlight missing information as well as showing the team the progress their clients are making.

Both the FNs and the supervisors noted the importance of supervision to successful delivery, providing a space for reflection and joint planning. However they were less sanguine about the monthly reports. They liked to go over the content of the visits but were less positive about those that focussed on client attrition and these were used less often by supervisors. Possibly as the sites move into a new phase in 2009, submitting forms to a web-based data system so that reports can be generated as required, they may be more receptive to them.

The US National Service Office recommends that sites attempt to keep attrition to 10% or less in pregnancy and 20% or less in infancy and this again was very close to the objective, with 32% attrition overall for the two phases. Most of the reasons indicated that clients felt they were sufficiently knowledgeable and supported to manage without FNP. It is realistic is to accept that some clients will make good progress and then decide that they no longer want the programme - the most common reason for leaving - others may be ambivalent about wanting to continue and these could be identified on the basis of their reaction to the visits. However, it would be useful to know who these clients might be when planning for future FNP provision.

There were few client characteristics that differentiated those who left from the remainder so it may be problematic using demographic information to identify in pregnancy those who subsequently manage well and then decide that the programme is not for them. Nevertheless, on the basis of the FNs' ratings of client involvement in the visits and their understanding of or conflict with the materials being presented, it was possible to distinguish leavers from those who stayed, and this was also true looking at FNs' ratings of the relevant partners. This presents an important use for the home visit forms during supervision. When a client seemed likely to leave the FNs were likely to turn to the team for advice. This means that many should have a chance to work on some strategies to increase retention. Their belief was that a strong relationship between the client and the FN would help them to stay in the programme and they are learning that it may be better to accept a lower level of delivery - in terms of dosage - so that the client can be kept in the programme.

The ideas expressed by these FNs in England in fact reflect research findings about ways to limit attrition that have recently emerged from the US (Ingoldsby et al., 2009). In the US research it was found that a strongly client centred way of delivering the programme, encouraging them to limit the number of visits if they wished, selecting the materials that interested them most, and emphasising their control over the process, led to a reduced likelihood that they would drop out. While this may then lead to fewer visits being delivered, and thus performance that deviates more form one particular aspect of optimal programme delivery, it may lead in the long term to better parent and child outcomes, if they stay with FNP until the child is 24 months.

Too much focus on delivering with fidelity may, however, be counter-productive in some cases. If the key features of this intervention are adherence to the model, fidelity, accuracy to the prescription, then the demands of the clients are adaptation, flexibility, variation from the prescription. Where the case studies show gains, these have usually occurred because the FN was exercising flexibility (being willing to tackle housing, social workers attitudes, partner's violence) rather than using the materials slavishly. Nevertheless, this flexibility needs to have at its basis a clear knowledge of the recommended content in conjunction with the close client-FN relationship. The relationship between nurse and client is key. Weakness in fidelity could be interpreted as the pull towards flexibility. Families need to be enticed so when they seem about to withdraw there is a tendency for services move more and more onto parents terms. This is a challenge for FNP since at the core there are many expectations for programme delivery. It will be important to determine how crucial these are to outcomes, in the ongoing RCT.

The cost of delivering FNP (for which only approximate figures are available) seems to be close to the cost in the USA. Information from the staff work diaries does not reveal a substantial amount of change from 2007 to 2008 in the way that the FNP teams spend their time. While just under a third of time is face to face with clients, about 60% of FN time is spent on activities that are inherent to FNP, such as visits, supervision, group meetings and form completion. However a more useful comparison would be to compare FN and supervision activities in some of the newer sites, where there has been less pressure to recruit clients in a short space of time, with the diaries kept by the wave 1 teams. What has changed in 2008 for wave 1 is that, rather than spending a substantial proportion of their time on FNP training, they are spending almost the same proportion of time on non-FNP training, some mandatory, some for professional development. There is some variation between sites but no firm conclusions should be drawn from the data since there was variability in the manner in which the diaries were completed between the sites.

While comparison of the FN time allocation is problematic between sites, in general, although taking the Wave 1 sites together the picture is of progress in delivering FNP with fidelity in this first roll-out of FNP in England, there is considerable difference between sites delivering the programme. In order to understand site differences more clearly they have been

compared on a number of aspects of delivery, and ranked from 1 to 10. First the extent to which the proportion of expected visits was achieved in both pregnancy and infancy was ranked, then whether or not each of the five content domains was covered for the target proportion of time, then the level of attrition across both pregnancy and infancy was included, and fourthly the extent to which forms had been completed. Ranks were then compiled based on the client ratings in interviews of the FNs, the materials and the difference the programme had made to them, ranks were made of the FNs' ratings of client involvement in visits, and finally a rank was made of several aspects of local support for the continuation of FNP.

Two programmes stood out as 'stars' in this process. One had no rank below 4 and the other had a similarly consistent pattern with most ranks 1 or 2, the only exception being the rank for their completion of forms which was just below the middle. Thus in these two areas the statistics on delivery of the actual programme, the FNs' views about how well clients were engaging, the clients' views about what they thought of the programme and the evidence of support for FNP from a range of interviews and study of local plans all pointed to highly successful delivery. It is notable that neither of these sites is in a large urban area, and neither has had any staff departures. The teams appear to be cohesive and mutually supportive and they are closely supported by their local PCT.

Two areas performed almost consistently at a lower level that the remaining sites, though each of these had one strength. For one it was completing forms and for the other it was having a low level of attrition. One was rural and the other urban but both teams had experienced a considerable amount of staff disruption either through ill health or through leaving, which impaired their capacity to function effectively, also the case for the third weakest site. In two of these three areas the evaluation determined that external support for FNP was particularly poor, which may have contributed to a sense of insecurity in some team members, precipitating their departure to other employment that appeared more secure.

For the remaining sites there were two general patterns, either good solid middle rankings for all aspects of programme functioning or some strengths and some weaknesses. This style of variation might reflect different styles of leadership. There were marked variations in coverage of the content domains by site which might be linked with whether or not the monthly reports are being used effectively in supervision to help FNs in the transition between pregnancy visits and those designed for infancy. It is possible that in these areas focus on one aspect of fidelity (e.g. making sure that caseloads were full) could mean that another (such as completion of forms) suffers. Attrition also differed by site but could not be linked easily to any particular feature of the area, or the clients. Thus it is more likely that aspects such as team functioning, staff sickness or local demands on the FNs' time may be related to these differences.

B. Acceptability of FNP

In year one the clients reported a high level of acceptance of the programme and this has continued at the same level during infancy. Clients were overwhelmingly positive about the FNs, even the ones who had left the programme. This was evident in global ratings, in detailed questionnaire responses and in open-ended comments. Rather than becoming bored with the structure or format of the visits they are if anything more interested as they see the impact on their infants of their new learning, such as ways to play or to cope with difficult behaviours such as sleep problems.

Some of the clients who left felt that they had reached a plateau in terms of new learning, that the materials were beginning to bore them, but the majority of clients were enthusiastic about the activities and enjoyed the participative aspect of the worksheets. It was notable that the clients could recall some materials that were used only infrequently in infancy, but

their message had stayed with the clients. A great deal of work has been undertaken to make the materials more relevant to the UK population and to update them with the current guidelines being used by midwives and health visitors. However even their original US versions have struck a chord with these young first-time parents, allowing them to become aware of important ways to keep their new babies safe and to interact with them in enjoyable ways that will promote their development.

The FNs appeared to be good at judging how involved clients were with visits and rating their level of understanding and they had, prior to their departure, rated those who left on average as being less involved. This may provide a way to prevent attrition for subsequent clients, if these ratings are studied in supervision sessions. Many fathers were also attending the infancy FNP visits and from the ratings made by the FNs their level of understanding of the materials was equally high, though they were marginally less involved overall. Clients studied in depth, identified as making good progress often against the odds, usually had good involvement of their partners.

Not only did the clients find FNP acceptable in infancy this appears to be the case for the FNs also. They were generally positive about the materials although their bias was towards those focussing on parenting and child development rather than life course development. They judged that client engagement was good, possibly better than in pregnancy in some cases, which they attributed to the fact that clients could see the progress that their babies were making.

C. FNP within a wider service structure

While commissioners in some areas appear to be locating FNP as a central aspect of their services for families with young children others have reservations. There appears to be a direct relationship between their understanding of the aims and potential outcomes of FNP and their willingness to sustain FNP in the area and levels of understanding and acceptance vary considerably. For some there is an expectation that, given the different populations and service contexts, the outcomes identified in the US trials will not be forthcoming in England. Where there was a joint approach at the commissioning levels in local areas, where middle managers had experience of working together, and where there were relationships between FNs and others working with families, the identity of FNP had begun to crystallise.

The integration of FNP into Children's Centres also has some way to go. The level of understanding of many Children's Centre managers about FNP and how it can be integrated with other services is limited. For successful delivery from within a Children's Centre several features are needed: a centre needs to be established, to have space, to have a policy and system for sharing information, and a good understanding of the FN role and how it can be absorbed into the centre. This includes an understanding of how the work differs from health visiting. Only about one third of the clients with infants who were interviewed had been to a centre within the previous three months, mainly for mother and baby play sessions. Possibly this will increase once their children are older and the clients are looking for childcare but more work may be needed to fully link up FNP with this aspect of service provision for families with young children.

The intervention must be recognised as specialist and unique. Its distinctive qualities need to be clarified for all those who may be working in preventative services with families. In the pilot areas where this has been done best it was through a programme manager or leader who was already well-established in a multi-agency setting, knew most of the people working in it, and 'sold' FNP locally, explaining its special qualities and answering questions about it. This kind of advocacy role will continue to be needed in new sites, and even established sites, until FNP has become established as a distinctive brand.

It is not just the other services that need to be considered when integrating FNP. As the staff group grows with the addition of subsequent waves of sites (currently the total stands at 30 with 20 more soon to be established), the position of the FNP staff within a wider NHS structure needs to be considered. FNs have to maintain fidelity to the programme while at the same time remaining NHS staff and also having to operate within a multi-agency environment. This means that it is inevitable that part of their time will be taken up with non-FNP activities which reflect the institutional structures within which the programme operates in England. Some of their comments indicate that they feel that NHS administrative burdens can limit their ability to deliver the programme effectively by putting additional pressures on their time. However they need to remain within the NHS for their long-term future.

The time spent on continuing professional development reflects this concern, to avoid falling behind their colleagues in more mainstream roles. Even if the programme is extended even further, the available posts will be spread thinly in each geographical region making it difficult for those in the FN role to take the only possible move upwards, to become a supervisor. Thus staff development may become an ever increasing issue that needs to be addressed to avoid high staff turnover, which in this evaluation has been identified as one factor associated with less adequate programme delivery.

D. Potential for impacts

There are many ways that FNP has potential for impact and both the clients and the FNs share a belief that the programme is making a substantial difference to their lives. The case studies also indicate that FNP can make a difference, one that is sometimes not predicted, though of course they were selected just for that purpose. However it is not easy to demonstrate this without comparable information form similar families not in receipt of FNP. In addition some of the evidence for 'impacts' is derived from forms completed by the FNs, which were variable in both their actual completion and in the completeness of data within each form. Thus the information presented in this report concerning aspects of maternal behaviour such as change in smoking during pregnancy, their level of breast feeding or any of the child outcomes such as infant weight or prematurity, is neither proof, nor lack of proof, of its impact. Instead the information should be used as the basis to establish accurate data collection within each local area so that progress can be documented and compared with other families with similar demographic backgrounds, until such time as the findings from the English RCT are available.

It is encouraging that the clients seemed happy to take part in the kind of interview that may be included in the RCT, answering questions about their parenting behaviour, their attitudes, and their child's behaviour with consistency. These are the kinds of information, complemented with assessments of children's development and data from systems such as hospital admissions, GP records and school records, that will provide the necessary English evidence of impact to compare with that obtained in the three USA trials.

E. Lessons learned and future work

These 10 sites had the unenviable job of being the first to deliver an innovative but complex intervention programme, under a spotlight of national interest and within a tight time-frame. In the first year of the evaluation it was evident that there was a struggle to recruit sufficient clients while at the same time becoming familiar with a vast array of materials and developing a new way of working.

They are managing to maintain programme delivery that in many ways comes close to the stretch objectives developed in the US, which are targets that a site should try to attain after a couple of years of operation. Delivery in infancy is perceived as successful by both the clients and the FNs and anecdotal evidence indicates that both groups believe that substantial progress is being made in terms of parenting and child development.

However, tensions are emerging from commissioners and other service providers in the areas when decisions are being made about whether to sustain the programme after the pilot period, which will end in approximately 18 months when all the first cohort of clients' children reach 24 months of age. There are unreasonable expectations that local teams should be able to produce evidence that the programme has made a difference, to justify its perceived high cost, despite the fact that this is primarily a preventive intervention - long terms gains over one or two decades are what makes it cost effective and gains may not be within the health domain but in other areas such as education, employment or criminal justice. Some of the staff, possibly responding to these pressures, have felt insecure in these new roles and have moved back to more familiar work, which has proved problematic for the remaining team members. Those sites that have been the most successful in delivering with fidelity, with good feedback from clients, also have strong local support and teams that have remained intact. This has enabled them to work cohesively in a manner that is highly supportive. To provide the programme effectively good team functioning is essential and this requires strong guidance from within, provided by the supervisor, supported by individuals within the PCT assigned to be responsible for the programme, and from commissioners and professionals in other agencies working alongside health to support young children and their families. The factors that predict successful team functioning will be studied in more detail in the final phase of this pilot of providing FNP in England.

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Appendix A

Interviews conducted for the evaluation, by site

Site	Clients				Stakeholders	
	Infant 6 months	Infant 12 months	Tele-phone	Leaver	Project Lead	Commissioner or CC manager
1	8	4	8	7	1	5
2	7	5	8	3	1	4
3	9	8	10	3	1	4
4	9	5	11	1	1	5
5	14	8	10	3	1	4
6	9	8	11	7	1	3
7	6	8	10	5	1	2
8	10	8	11	2	1	2
9	7	8	10	8	1	2
10	8	5	9	3	1	4
Total	**87**	**67**	**98**	**42**	**10**	**35**

Appendix B

Family Nurse Partnership stretch objectives for pregnancy and infancy programme delivery

Programme reaches the intended population

1. 75% of eligible referrals are enrolled in the programme.
2. 100% of clients enrolled are first-time mothers (no previous live birth).
3. 60% of pregnant women are enrolled by 16 weeks gestation.

Programme attains enrolment goal and recommended caseload

4. A caseload of 25 for a full-time family nurse within 8-9 months of programme operation.

Programmes successfully retains participants through the child's second birthday

5. Cumulative attrition is 40% or less through to the child's second birthday.
6. Attrition 10% or less for the pregnancy phase.
7. Attrition 20% or less for the infancy phase.
8. Attrition is 10% or less for the toddler phase.

Home visitors maintain established frequency, length, and content of visits with families

9. Percentage of expected visits completed is 80% or greater for the pregnancy phase.
10. Percentage of expected visits completed is 65% or greater for the infancy phase.
11. Percentage of expected visits completed is 60% or greater for the toddler phase.
12. On average, length of home visits with participants ≥ 60 minutes.
13. Content of home visits reflects variation in developmental needs of participants across programme phases.

	Pregnancy	Infancy	Toddlerhood
Personal health	35-40%	14-20%	10-15%
Environmental health	5-7%	7-10%	7-10%
Life course development	10-15%	10-15%	18-20%
Maternal role	23-25%	45-50%	40-45%
Family and friends	10-15%	10-15%	10-15%

Appendix C

Responses to the Nurse-Client Relationship Inventory from mothers of 6 and 12 month olds interviewed at home (N=154)

My Family Nurse:	Strongly Disagree N (%)	Disagree N (%)	Uncertain N (%)	Agree N (%)	Strongly Agree N (%)
helps me to understand my baby	2 (1.3)	3 (1.9)	4 (2.6)	82 (53.2)	63 (40.9)
helps me to keep a positive outlook.	1 (0.6)	3 (1.9)	2 (1.3)	77 (50.0)	71 (46.1)
brings out the best in me	1 (0.6)	5 (3.2)	29 (18.8)	69 (44.8)	50 (32.5)
helps me to learn how to solve problems	3 (1.9)	8 (5.2)	11 (7.1)	82 (53.2)	50 (32.5)
encourages me to make my own decisions	0	5 (3.2)	9 (5.8)	76 (49.4)	64 (41.6)
helps my family get along better	4 (2.6)	26 (17.1)	36 (23.7)	54 (35.5)	32 (21.1)
does not ask me to do anything I cannot do	2 (1.3)	4 (2.6)	4 (2.6)	84 (54.9)	59 (38.6)
understands my situation	0	2 (1.3)	1 (0.6)	79 (51.3)	72 (46.8)
helps me to develop my role within my family	1 (0.6)	8 (5.2)	13 (8.4)	84 (54.9)	48 (31.2)
helps my child's development & my own	1 (0.6)	7 (4.5)	3 (1.9)	82 (53.2)	61 (39.6)
understands if I tell her what I want to do	0	5 (3.2)	1 (0.6)	85 (55.2)	63 (40.9)
helps me to develop as a member of my family	3 (2.0)	7 (4.6)	14 (9.2)	83 (54.2)	46 (30.1)
respects my independence	0	1 (0.6)	3 (1.9)	81 (52.6)	69 (44.8)
accepts my ways	0	2 (1.3)	4 (2.6)	83 (53.9)	65 (42.2)
motivates me to protect my child's health	0	2 (1.3)	3 (1.9)	75 (48.7)	74 (48.1)
cares about what happens to me	0	1 (0.6)	5 (3.2)	83 (53.9)	65 (42.2)
is sensitive to how I feel	0	2 (1.3)	6 (3.9)	75 (48.7)	71 (46.1)
gives me leaflets after she explains them to me	0	0	3 (1.9)	81 (52.6)	70 (45.5)
understands me	0	3 (1.9)	1 (0.6)	78 (50.6)	72 (46.8)
praises me for eating healthy food	2 (1.3)	13 (8.4)	15 (9.7)	65 (42.2)	59 (38.3)
praises me when I reach a goal	1 (0.6)	3 (1.9)	4 (2.6)	74 (48.1)	72 (46.8)
shares her knowledge with me	0	1 (0.6)	2 (1.3)	77 (50.0)	74 (48.1)
encourages me to succeed in daily life	0	2 (1.3)	7 (4.6)	73 (47.7)	71 (46.4)
respects my family's way of doing things	1 (0.6)	1 (0.6)	8 (5.2)	79 (51.3)	65 (42.2)
builds on my strengths	0	2 (1.3)	6 (5.2)	81 (52.6)	65 (42.2)
looks after my best interests	0	1 (0.6)	6 (4.5)	77 (54.5)	70 (45.5)
tells me about herself	5 (3.2)	15 (9.7)	16 (10.4)	69 (44.8)	49 (31.8)

Appendix D

Monthly reports to sites on delivery derived from data forms completed by FNs

Each site has received four reports each month. Report numbering is based on USA Nurse Family Partnership reports.

Report 1 Completed and Overdue Forms

Data period: from programme start to cut off date

The report is organized by family nurse ID with each FN's report starting on a new page to enable supervisors to share report with FNs to serve as a reminder of the forms due within the next month. If a form has been completed its date is shown, if it is due and hasn't been completed it is flagged as 'overdue', forms that are not due are left blank.

Report 2 Content and Length of Visits

Data period: for three months to cut off date

This report allows supervisors to track dates of visits, length of visits, number of clients served, proportion of time spent on the five content domains and percentage of planned content covered. The first section shows each FN's data summarised to overall figures for pregnancy and infancy. The detailed section organized is by, and provides summary information for, each FN and then each client. It chronologically provides the detail of time spent and content percentages for each visit.

Report 6 Monthly Activity Profile for Nurses

Data period: for three months to cut off date

Allows supervisors to review how FNs are managing their overall caseload on a monthly basis. The report is organised by FN, then client in client ID order. For each of the past three months the total of completed, attempted and cancelled visits are shown detailed and then summarised by month and by 3 month period.

Visit Frequency and Leavers Data wave1

Data period: from programme start to cut off date

Each site is given their own data, plus the data figures for all sites for comparison. This report comprises:

- Details of the frequency of visits to show the number and percentage of clients receiving the fidelity objective of 80% or more of expected visits during pregnancy and 65% or more of expected visits during infancy based on the number of UK001 Home Visit Encounter forms received.
- The above data presented graphically as a bar chart for both pregnancy and infancy phases.
- Details of the number and percentage of all clients who have left and their reasons for leaving based on their most recent UK004 Client Leave/Return form.
- This data is then presented separated by those leaving during pregnancy and infancy.

Appendix E

Data forms completed by Family Nurses in pregnancy and infancy

Form Name		Pregnancy		Infancy			
		1-4visit	36wks	1st	6wk	6mth	12mth
UK001 Home Visit Encounter	Every visit						
UK002 Referral Made	As req						
UK003 Telephone Encounter	As req						
UK004 Client Leaving-Returning Programme	As req						
UK004A Changes to Client-Child Status	As req			(SCBU)			
UK005 Maternal Health Assessment		1st					
UK006 Health Habits		3rd/4th	Y				Y
UK007 Relationship Assessment Pregnancy Intake		3rd/4th					
UK008 Relationship Assessment 36 weeks			Y				
UK009 Relationship Assessment 12 months							Y
UK010 Demographics Pregnancy Intake		2nd					
UK011 Demographics Update						Y	Y
UK012 Infant Birth				Y			
UK012A 6 Week Health					Y		
UK013 Infant Health Care						Y	Y
UK015 English Language Assessment (21 months)							

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