NHS Health Scotland

Evaluability assessment of the Family Nurse Partnership in Scotland

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Evaluability assessment of the Family Nurse Partnership in Scotland

1. Introduction

This paper presents an evaluability assessment (EA) of the Family Nurse Partnership (FNP) in Scotland. FNP is a licensed US programme which offers intensive, structured home visiting support to teenage first-time mothers delivered by a specially trained nurse, from early pregnancy until the child's second birthday. The EA was conducted on behalf of the Scottish Government to inform the decision about options for the next stage of evaluation and how best to evaluate the impacts of the FNP programme in Scotland. It had to weigh up the value of the evidence generated by each different evaluation option in terms of informing future decisions against the likely cost and practicality of gathering that evidence.

This EA is part of a pilot of EA approaches being conducted by a collaboration of evaluation specialists from NHS Health Scotland, two academic public health research units (SPHSU and SCPHRP) and the Scottish Government public health analytical team. The process was conducted over the course of three meetings that involved the key stakeholders from Scottish Government, the FNP programme in Scotland, and research and data specialists with knowledge of the FNP programme. The participants are listed in Appendix 1.

In Section 2, we outline the FNP programme within the context of the existing services for mothers with young children in Scotland and consider the scale and patterning of programme implementation to date. In Section 3, we present a theory of change for the FNP programme in Scotland and set out the key outcomes for which data is required and the key evaluation questions of interest. In Section 4, we provide an assessment of the data quality and availability for those outcomes. In Section 5, we present options for monitoring and evaluating the programme in terms of the main outcomes given in Section 3, the key evaluation questions of interest, and given the constraints on data availability. In Section 6, we present our recommendations.

2. Background and policy context

The FNP programme was developed in the US where there is wide variation in services provided for young mothers and their children. Trials in the US have shown that the programme can improve health behaviours in mothers, birth outcomes, and childcare, reduce child injuries and neglect, and lead to longer-term improvements in

the maternal life course, and in child and adolescent function.[1] In a UK context, where the National Health Service already offers midwifery and health visiting support to all expectant and new mothers, a key question is whether FNP can achieve improved outcomes for young mothers and their children over those achieved through usual care.

This question is currently being addressed in England via a large-scale randomised controlled trial involving 18 FNP sites and due to report in 2015. This is the Building Blocks trial undertaken by Cardiff University, funded by the UK Department of Health costing £5 million.[2] A further evaluation study is being funded by the National Institute of Health Research (£700k) to assess the long-term effectiveness, cost and consequences of the FNP programme in reducing maltreatment in young children. The Scottish Government aims to build on and supplement this evidence base by evaluating the implementation of FNP, to assess effectiveness, value for money, and opportunities for optimisation of the programme, in order to support future decision-making in Scotland.

FNP in the UK context

FNP was first introduced in the UK in 2007 across 10 pilot sites in England. The programme has subsequently been expanded in England and now operates across at least 80 local areas. Scotland began offering FNP in early 2010 and Northern Ireland in late 2010.

The implementation, evaluation and sustainability of FNP in the UK needs to be considered in the context of the existing services for young mothers which is delivered by health visitors (HVs) in Scotland and by HVs and nursery nurses in England. This service has a universal assessment pathway and plans for 11 home visits over the first five years of a child's life.

In Scotland, there are plans to enhance the existing health visiting service to increase the HV workforce by 500 with a review of their roles, remit and workload. The changes are expected to be fully implemented by the end of 2018. This has implications for the timing and nature of any comparison between FNP and usual care for young first-time mothers. There will be a better understanding of what the enhanced service will entail by summer 2015. The findings from an evaluation conducted by NHS Ayrshire and Arran will help to inform the development of the service.

[1] References to previous trials and other studies of FNP are available here: http://fnp.nhs.uk/research-and-development/published-research. Results of a recent trial in the Netherlands are reported in: Mejdoubi J, et al. 2015. The Effect of VoorZorg, the Dutch Nurse-Family Partnership, on child maltreatment and development: a randomized controlled trial. *PLoS ONE* 10(4): e0120182; and Mejdoubi, J et al. 2015. Effects of nurse home visitation on cigarette smoking, pregnancy outcomes and breastfeeding: A randomized controlled trial. *Midwifery*. 30(6): 688–695.

[2] www.wspcr.ac.uk/building-blocks.php; accessed 25 March 2015.

The FNP programme in Scotland

FNP is a licensed, evidence-based programme which consists of core model elements that must be in place and implemented as intended to ensure the expected outcomes are more likely to be achieved. The Scottish Government is granted the licence by the University of Colorado (UCD). An FNP National Unit located within NHS Education Scotland (NES) is responsible for the quality of programme implementation, through clinical leadership, nurse education and coaching, site support and development, monitoring and quality improvement.

The FNP programme is delivered by Health Boards (except NHS Highland where the model is supported by a health and social care integrated partnership), usually with a nurse director as the project sponsor. Each site has the same enrolment criteria:[3]

- First-time mothers aged 19 and under at last menstrual period
- Voluntary enrolment
- No previous live birth
- No plans to relinquish the baby
- Not planning to leave the area before programme is completed
- Recruited from a defined geographical area

The caseload of the trained family nurses (FNs) is limited to 25 mothers for one whole-time equivalent (WTE) with between four and eight FNs per supervisor. When caseload capacity is reached, FNP recruitment is temporarily suspended. The Scottish Government provides additional funding to cover setting-up costs and several additional roles, including FNP lead, administrative support, and an FNP nurse to lead quality improvement (this role is being tested in three sites).

Under the terms of the licence agreement,[4] replication of FNP should follow four standard phases, summarised below:

1. **Adaptation.** Testing the programme within a local context to ensure the programme fits with local delivery systems and requirements.
2. **Feasibility and acceptability.** Testing the programme within one or a number of sites to ensure feasibility and acceptability of the programme within local context.
3. **Randomised controlled trial.** Evaluating the impact of the programme on public health outcomes. During this phase continuing recruitment of clients may be approved.
4. **Replication and expansion.** Once the impact evaluation has been completed and the outcomes found to be of public health significance, the programme may be replicated in new sites. Replication and expansion is

[3] In England, some local sites have narrowed the enrolment criteria to target the more vulnerable and younger age groups.
[4] These requirements are written into the Nurse Family Partnership (NFP) Programme Assessment and Implementation Agreement with the Scottish Government, dated 5 August 2009.

supported by establishing procedures for the selection of new sites; training of new nurses; and ensuring continuous quality improvement.[5]

Under the terms of the licence, the Scottish Government agrees with UCD how the programme will be scaled out and the associated research and evaluation undertaken. It was initially agreed to implement FNP in one geographic site (located in NHS Lothian), commencing in January 2010, to test the feasibility and acceptably of the programme within a local context. Since then, and before any impact evaluation was undertaken in Scotland, the Scottish Government secured agreement, on the basis of the RCT being conducted in England, to introduce FNP into seven new geographic sites, with a second team in NHS Lothian. In November 2013, it was agreed to further extend FNP implementation to up to four additional sites.[6] This means that the programme will be available in 11 of the 13 Scottish Health Board areas by the end of 2015, around 3000 women will have been recruited to FNP, and the active caseload capacity will be increased to at least of 2000 active places in any one year (sufficient to enrol two-thirds of the estimated 3000 births to first-time teenage mothers in 2014/15) and a trained workforce of 360 in total. The goal is to have nationwide coverage by the end of 2018, which would make Scotland the first country to attain this.

Evaluation of FNP in Scotland

To date, the only evaluation of FNP in Scotland has been of the first site in NHS Lothian and has focused on testing the acceptability, feasibility and transferability of the FNP model to the Scottish context. This Phase Two evaluation was completed in November 2013[7] and looked at:

- whether the programme could be implemented as intended in a Scottish context and lessons emerging from programme implementation
- the response of clients and nurses to the programme
- the plausibility of the programme to impact on short-, medium- and long-term outcomes, in particular those of relevance to Scotland.

This evaluation concluded that ‘it is possible to implement the FNP programme with fidelity in a Scottish context’. However, the Phase Three impact evaluation of the FNP programme has not yet been undertaken. The Scottish Government has set up the FNP Scotland Evaluation and Research Advisory Group (ERAG) to oversee the development of a coordinated evaluation programme that supplements existing UK and international evidence and is appropriate to the late stage of programme implementation (see Appendix 2 for further details).

[5] These are set out in full in Appendix 4
[6] NHS sites are as follows: Lanarkshire; Ayrshire and Arran; Highland; Forth Valley; Grampian; Borders; Tayside; Fife; Greater Glasgow and Clyde; and Lothian
[7] www.scotland.gov.uk/Topics/People/Young-People/early-years/parenting-early-learning/family-nurse-partnership/evaluation

3. A theory of change for the Family Nurse Partnership

The theory of change for the FNP programme has evolved over time from the original Nurse Family Partnership programme developed by Professor David Olds at the University of Colorado and tested via randomised controlled trials in the US. The original programme is based on theories of human ecology, self-efficacy and attachment and the intervention is focused on building a therapeutic relationship between the mother and the family nurse in order to improve health during pregnancy, birth outcomes, child health and development through to adolescence, and the mothers' economic self-sufficiency.

The original FNP theory of change logic model and the amended Scottish version are shown in Appendix 3. A simplified version (Figure 1) was developed through the EA process to help clarify the main outcomes for FNP mothers and children in Scotland as well as for the secondary impacts on wider early years practice and other public services.

The FNP intervention – the essential mechanism that triggers positive changes is the establishment of a successful therapeutic relationship between the mother and the family nurse. The necessary conditions for this relationship-building are seen as the professional training, support and supervision for the family nurses, a caseload matched to the demands of the programme, and their ability to draw on a variety of tools and resources.

The experience of delivering the FNP programme is also expected to influence other maternal and child health and social care services, with opportunities to learn across the services being encouraged. In this respect, it is anticipated that FNP will have considerable 'spill over' effects on professional practice and service delivery.

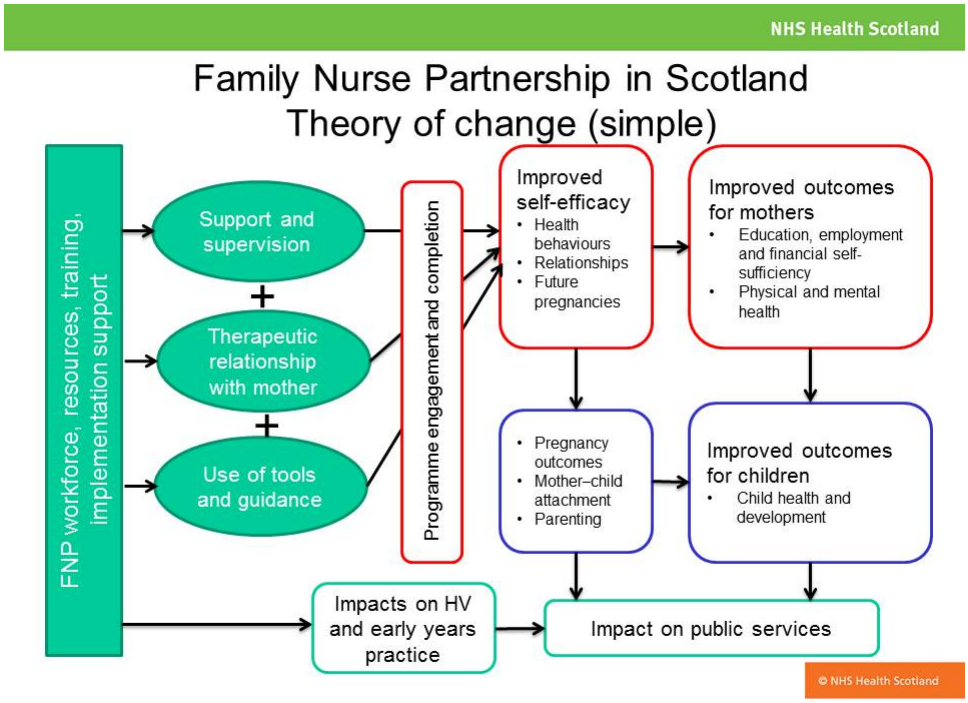


Figure 1: Family Nurse Partnership in Scotland – a simple theory of change

Outcome 1: Programme reach and engagement

The critical first outcome for any programme is the extent to which the eligible population engages with the programme. For FNP, this requires the mothers recruited to the programme to accept and respond positively to the offer of intensive support from a family nurse throughout her pregnancy and to continue to engage over the first two years of her child's life.

Outcome 2: Improved self-efficacy

It is expected that the mothers will develop a greater confidence in their ability to determine their health-related behaviours (diet, smoking, alcohol consumption, drug use), control future pregnancies (e.g. through the use of long-acting reversible contraception (LARC)), and manage their relationship with the child's father (so that it is supportive to the mother and child and not abusive).

Outcome 3: Improved life circumstances

The development of greater self-efficacy is also expected to extend to wider decisions that will improve mothers' life circumstances such as returning to education, gaining employment and becoming more financially self-sufficient and less dependent on welfare benefits.

Outcome 4: Improved maternal health

The mothers' greater sense of self-efficacy and control over their life due to FNP is expected to lead to mothers having better general physical and mental health.

Outcome 5: Pregnancy outcomes
If engagement with the FNP programme brings about improvements in the mother's antenatal care and health behaviours in pregnancy, then this is expected to bring about better pregnancy outcomes, such as a better birth experience, fewer babies born prematurely and with a low birthweight.

Outcome 6: Mother–child attachment (including parenting)
Through engaging with the FNP programme, mothers learn the importance of early bonding, breastfeeding and sensitive interactions which are expected to encourage better mother–child attachment, greater responsiveness and less distress. The FNP programme also encourages good parenting practices linked to child development, especially playing with their babies, creating a stimulating home learning environment and taking child safety precautions to prevent injury.

Outcome 7: Improved child health and development
Better outcomes for the children exposed to the FNP programme are indicated mainly by milestones such as speech, physical ability, social skills, and problem-solving skills. Exposure to the FNP programme is also expected to reduce the incidents of child injury or harmful ingestions and/or child neglect and fewer (or more appropriate) medical and social work referrals/encounters.

Outcome 8: Impacts on other services
The FNP programme in Scotland makes explicit potential positive impacts of FNP on wider early years and other public services, in terms of potentially improving the capacity to address the needs of vulnerable families. However, FNP also has the potential to generate more referrals to other services and put additional strains on the system.

Key evaluation questions
The key questions for evaluation identified in the three stakeholder meetings are as follows:

Process evaluation

- How do family nurses establish successful 'therapeutic' relationships with mothers?
- What proportion of the eligible population engages with and completes FNP? How do eligible mothers respond to FNP? Who engages most/least and why?
- How do fathers respond to the FNP programme? Does the programme impact on fathers/partners and with what effect on child/social outcomes?
- How does quality of implementation vary across sites?

Impact evaluation

- Have outcomes for young first-time mothers and their children exposed to the FNP programme improved by comparison with those receiving usual care? Is there variation in outcomes within or between cohorts?
- Inequalities – are any positive benefits from the FNP programme evenly distributed?
- Has FNP influenced other services for young mothers and their children?

Economic evaluation (cost–consequence or cost-effectiveness analysis)

- What are the costs and consequences of FNP?
- Can they be combined into a cost-effectiveness analysis, and how does the cost-effectiveness of FNP compare to that of usual care?

4. Possible data sources

Table 1 lists the main sources of existing data that might be used to evaluate the FNP programme according to the outcomes identified in the theory of change. They include the data collected by the FNP National Unit, the Scottish Morbidity Record datasets held by ISD, and the Growing Up in Scotland (GUS) birth cohort survey.

Table 1: Data sources on births to young mothers in Scotland

Theory of change	**Data sources**		
	FNP dataset	**ISD***	**GUS**
FNP programme delivery	✓		
Programme engagement • % eligible pop reached • Completion rate • Attrition rate	 ✓ ✓ ✓		
Improved self-efficacy • Health behaviours • Future pregnancies • Relationship with father	 ✓ ✓ ✓	 ✓** ✓	 ✓ ✓ ✓
Improved life circumstances • Education • Employment • Financial self-sufficiency	 ✓ ✓ ✓		 ✓ ✓ ✓
Improved maternal health • General health status • Mental (anxiety, depression)	 ✓ ✓	✓***	 ✓ ✓
Pregnancy outcomes • Gestation	 ✓	 ✓	

• Birthweight • Birth experience	✓ ✓	✓ ✓	
Mother–child attachment • Child responsiveness • Home learning • Parenting practices	 ✓ ✓ ✓		 ✓ ✓ ✓
Improved child health and development • Child's diet • Immunisations • Developmental milestones • Child injury, ingestions • Child neglect, abuse	 ✓ ✓ ✓ ✓ ✓	 ✓ ✓ ✓ ✓	 ✓ ✓ ✓ ✓ ✓
Impacts on other services • HV practice • Referrals			

*Includes the SMR02 maternity record, child health programme, Scottish Immunisation & Recall System (SIRS) and childhood hospital admission data.
**Smoking during pregnancy
***Hospitalisation for mental health problems

The FNP dataset collects a wide range of outcomes but is limited to participants. The ISD data include all births, but a limited range of outcomes, and is not currently linked to the FNP dataset. The GUS dataset covers a wide range of outcomes, but the number of teenage first-time mothers is relatively small (around 230 lone mothers and 120 partnered mothers in the second birth cohort).

5. Evaluation options

The FNP is a complex intervention. Standard guidance for the evaluation of such interventions emphasises the need for careful development and piloting work, building on the existing evidence base, a good theoretical understanding of how the intervention is expected to achieve change, a thorough process evaluation alongside a suitable design for identifying impacts, and an economic evaluation. Many of the foundations of such an approach are already in place: there has already been extensive development and testing of the FNP, including a number of large-scale trials in the US and one ongoing trial in England; the pilot conducted in Scotland has shown that the intervention is feasible within a Scottish NHS context; the EA workshops have usefully clarified the programme theory; a wide range of monitoring information has been collected on participants from the outset, and a number of key outcomes are routinely monitored across the whole population.

The options set out below suggest ways in which these can be further built on to inform future decision-making.

Option 1: Continue as now, but commission additional analysis of the monitoring data to describe and explore variation in implementation and outcomes.

Pros: Minimal additional costs – extra analytical time.

Cons: Although the FNP database contains a wide array of data on participants, without comparable data on a suitable comparator population (i.e. first-time mothers aged 19 or less who do not participate in FNP) it will not be possible to identify the impact of participation, or to draw robust conclusions about the effectiveness or cost-effectiveness of the programme.

Option 2: Option 1 plus a randomised controlled trial (RCT) of FNP in Scotland

Pros: A well-conducted trial would provide a precise, unbiased estimate of the effectiveness of FNP, and a sound basis for a cost-effectiveness study. It would be possible to collect data on a wide range of outcomes across domains 1–7, and record linkage could be used to monitor long-term health and educational outcomes for both mothers and children.

Cons: Extremely expensive – the Building Blocks trial in England cost almost £5 million. If that trial finds large effects, it would call into question whether a further effectiveness trial were needed, and the focus of any further evaluation would turn towards implementation. If it finds small effects, the size and cost of an adequately powered trial would rise still further. If it finds no effect, the case for a further trial in the UK would be difficult to make, given the tightly circumscribed model that implementation must follow, and the use of a common approach to training, even though there are differences in ‘treatment as usual’ for young first-time mothers in England and Scotland. Building a large-scale trial into the continuing implementation of FNP would be a challenge, and would entail substantial changes to the current implementation programme. The prospective nature of a trial means that it would be several years before results were available for most outcomes.

Option 3: Option 1 plus a natural experimental study, using data on participation in FNP linked with routinely collected data on pregnancy, birth and child health, to compare outcomes among mothers enrolled in FNP, and young first-time mothers who give birth shortly before or after recruitment to FNP began or ended in their Health Board area. This option is described more fully in Section 6 below.

Pros: Far less expensive than an RCT, and could make use of data on all participants from the initiation of FNP in Scotland to the point at which complete coverage is achieved. Sample sizes could therefore be much larger than in a trial, and complete population coverage would support generalisability of the findings. The retrospective element, going back to 2010, would mean that some results would be available much sooner than a prospective study would allow. Given the numbers available (see below), it should also be possible to explore variation in effectiveness between areas and over time.

Cons: Effectiveness could only be assessed in terms of outcomes monitored in the routinely collected data. These include a number of important outcomes in domains 2, 4, 5, 6 and 7, including smoking during pregnancy, birthweight, subsequent pregnancies (spacing and birth outcomes), breastfeeding, child development, hospitalisations and immunisations. These cover all four of the primary outcomes in the Building Blocks trial, but do not cover all of the outcomes of interest listed in Section 3. Privacy Advisory Committee (PAC) approval would be required to identify FNP participants in the Scottish Morbidity Record datasets – unlike in a trial, mothers' consent could not be obtained prospectively.

Any of the above could be coupled with the following additional elements:

(a) Process evaluation: a mixed-method process evaluation could combine FNP monitoring data with qualitative interviews among mothers participating in the programme, family nurses, supervisors and managers. This would provide valuable information for improving delivery, and in the event that impacts were smaller than expected, would help to distinguish between implementation problems and a failure of the intervention. Interviewing could be extended to key staff in other services to investigate wider service impacts.

(b) Economic evaluation: given the substantial cost of the FNP programme, an economic evaluation should be included. Given the wide range of outcomes, across both health and social domains, the most appropriate approach would be a cost–consequence analysis from a societal perspective. This is the basis of the economic evaluation in the Building Blocks trial, with cost-effectiveness and cost-utility analyses included where appropriate. It would be possible to include either in conjunction with option 2, but option 3 would only permit cost-effectiveness analyses. An economic evaluation conducted alongside option 1 would require the use of assumptions rather than direct estimates of effectiveness.

6. Recommendations

A decision on which approach to adopt should be made in the light of the findings from the Building Blocks trial. If the trial provides convincing evidence for the effectiveness of FNP in a UK setting, then the focus should switch to optimising implementation, in which case the preferred approach might be option 1 coupled with a process evaluation. If uncertainty remains about the effectiveness of FNP in the UK, then we recommend option 3 plus a process and economic evaluation. As well as being markedly cheaper than a trial, this kind of natural experimental approach would not disrupt the future implementation of FNP, and the potentially large sample size would permit analyses of variations in the effectiveness of the programme between areas and over time. **This recommendation depends critically on the feasibility of linking a marker of participation in FNP to the SMR record so that participants and non-participants can be compared.**

If such a linkage can be achieved, the following approach could be adopted. Smoking during pregnancy, birthweight, subsequent pregnancies (spacing and birth outcomes), breastfeeding, child development, hospitalisations and immunisations could be compared among FNP participants and first-time teenage mothers who give birth up to 12 months before recruitment begins in their Health Board area, during intervals between recruitment to FNP, and up to 12 months after recruitment has stopped.

It is unlikely that timing of births is associated with the start or finish of FNP recruitment so there should be no systematic difference between mothers who give birth during or outside periods of recruitment, other than those associated with general trends. The impact of any such trends should be small, given that controls will comprise births shortly before, after or between periods of recruitment, but it should be possible to identify and adjust for them.

Another possible threat to an unbiased comparison is the selection of mothers into FNP on criteria other than age and parity. If substantial numbers of women decline to participate or are excluded (e.g. because recruitment is not taking place in their locality within the Health Board), and such non-participants differ from participants in ways that are associated with variation in outcomes, comparisons with all first-time teenage mothers who give birth shortly before, after, or between periods of recruitment may over- or understate the impact of FNP. However it may be possible to restrict the control cohort, or to adjust for selection on geographical or other observable characteristics.

Approximate numbers of participants and non-participants available between 2010 and 2015 are estimated in Table 2.[8] The distribution of recruitment to FNP across Health Board areas over time is shown in the chart in Appendix 5. Two caveats should be noted. First, as stated above, the FNP cohorts are not all drawn from the entire Health Board area. For example, the first Glasgow cohort was recruited from Glasgow City, East and West Dunbartonshire, and the second from Renfrewshire, East Renfrewshire and Inverclyde, so ideally the control cohorts should be restricted in the same way, with some of loss of numbers. Secondly, the length of the recruitment period and consequent size of the FNP cohorts varies between Health Boards, so weighting would be needed to ensure that each Board contributed the 'right' proportion of participants and controls, at some cost to the effective sample size. Even with these losses, the overall samples of nearly 3000 participants and 6000 non-participants would still permit very precise estimation of overall intervention effects, with scope for further analysis by Health Board area, cohort and duration of recruitment.

[8] Estimated participant numbers include some projected to be recruited after Dec 2015; estimates of the numbers of controls are based on forecasts for 2013–4 onwards.

Table 2: Births in FNP and control cohorts 2010–15

	Lothian	Tayside	Fife	Glasgow	Ayrshire	Highland	Lanarkshire	Forth Valley	Grampian	Borders	TOTAL
FNP births	736	807	306	355	153	102	256	102	103	29	2949
Control births											
Interval births	563	77	220	614	0	0	0	0	0	0	1474
Births in 12 months pre-FNP	429	330	319	782	295	206	485	240	301	53	3440
Births in 12 months post-FNP	0	0	0	203	257	177	424	125	0	0	1186
All control births	993	407	539	1598	552	383	909	365	301	53	6099

As with any natural experimental study, it will be important to include extensive testing to exclude alternative explanations of differences observed in outcomes among FNP participants and controls. Sensitivity analyses should also be carried out, for example to identify possible effects of variation in the application of enrolment criteria. Otherwise, the substantial numbers involved and the straightforward allocation process make the Family Nurse Partnership well-suited to a natural experimental study. The cost of such a study will depend on the precise specification, and in particular on how the process evaluation is specified, but should be less than one-tenth of the cost of a randomised trial.

Appendix 1: List of those involved in the Evaluability Assessment of FNP

NHS Health Scotland

- Erica Wimbush, Head of Evaluation
- Rosemary Geddes, Kate Woodman, Farouk Saeed, Public Health Advisers
- Siobhan Hewison, Administrator, Public Health Science

Scottish Government

- Anita Morrison, Scottish Government, Head of Public Health Analytical Services
- Vikki Milne, Children & Families Analytical Programme Manager
- Carolyn Wilson, Policy Lead for FNP
- Felicity Sung and Ruth Henderson, Teenage Pregnancy & Early Parenting
- John Froggatt, Deputy Director, Child and Maternal Health

FNP National Unit, NHS Education for Scotland

- Jamie Reid, Data Manager
- Gail Trotter, Clinical Director
- Alison Knights, Education Lead
- Alison Oxley, Lead for Child Protection
- Susan Key, Programme Director, NES
- Helen Allbutt, NES Lead Research Governance

National Services Scotland

- Diane Stockton, Public Health Intelligence (now based at NHS Health Scotland)
- Calum MacDonald, Child Health

Local Health Boards

- Julie Truman, NHS Glasgow and Clyde

Research Units

- Peter Craig, MRC/CSO Social & Public Health Sciences Unit, University of Glasgow
- Ruth Jepson, Scottish Collaboration for Public Health Research and Policy, University of Edinburgh
- Daniel Wight, MRC/CSO Social & Public Health Sciences Unit, University of Glasgow

Appendix 2: FNP Scotland Evaluation and Research Advisory Group

Membership

Sarah Ballard-Smith (Chair) NHS Lothian, Gail Trotter (FNP Clinical Director), Alison Knights (FNP Education Lead) and Helen Allbutt (NES Lead Research Governance) NHS Education for Scotland, Carolyn Wilson (FNP Policy Lead) and Vikki Milne (Analytical Programme Manager) Scottish Government, Kate Woodman (Public Health Advisor, Evidence) and Rosemary Geddes (Public Health Advisor, Evaluation) NHS Health Scotland, Val Alexander (FNP Local Lead) NHS Lothian.

Secretariat: Scottish Government

The remit of the group is to

1. Ensure the implementation of FNP in Scotland is supported by research and evaluation by agreed parties, in particular to focus on the following:
    a) Assess whether the programme is being implemented as intended.
    b) Explore how the programme delivery might be adapted for use in Scotland.
    c) Determine what difference the programme has made to outcomes of interest in Scotland.
    d) Inform considerations regarding the sustainability[9] of the programme in Scotland.

2. Oversee the development of a coordinated research and evaluation programme in which existing UK and international evidence is supplemented and built on with relevance to FNP implementation in Scotland in line with the Analytical Programme 2014–18 and advise FNP Project Board on priorities for research and evaluation.

3. Provide strategic oversight on the evaluation work undertaken, including advice on existing data and evidence sources, project commissioning and reporting.

4. Provide ad hoc advice and guidance on potential scope of commissioning research and evaluation, strengths of grant proposals and on research and evaluation on FNP undertaken and reported elsewhere.

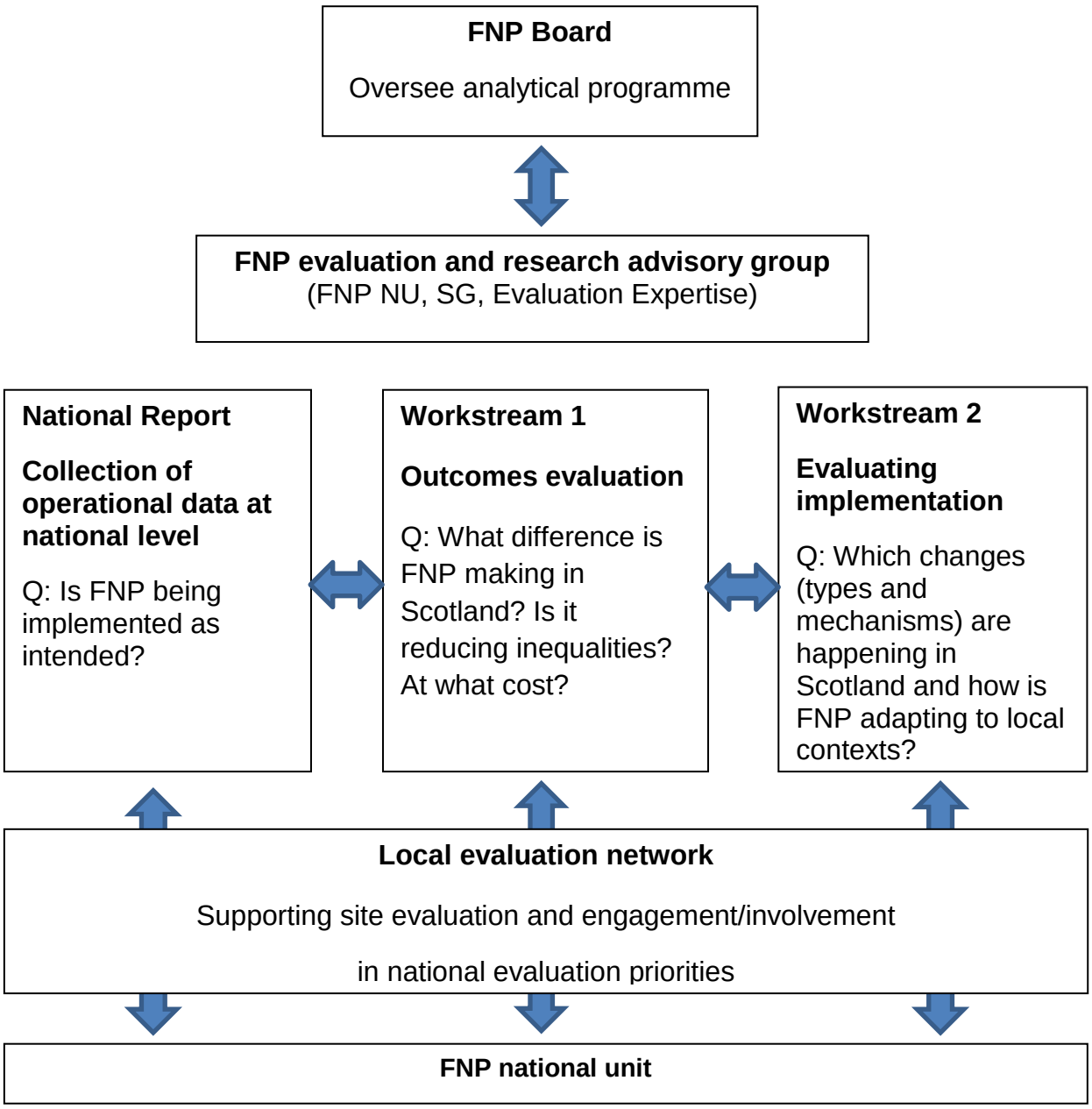
5. Help facilitate better knowledge exchange with relevant partnerships across associate areas, including UK wide research organisations such as the Medical Research Council, academic units and voluntary organisations.

[9] Sustainability is defined under three dimensions 1) ensuring that the programme is sustained for as long as needed, 2) recognising that sustainable health improvement requires safeguarding and conservation of resources and the physical environment and 3) ensuing that outcomes brought about by the programme are maintained. Adapted from Tannahill, A. 'Beyond evidence – to ethics: a decision-making framework for health promotion, public health and health improvement.' *Health Promotion International* 2008; 23:380–90

6. Ensure that all funding opportunities are identified and maximised.

This remit is to be reviewed on an annual basis. The next review is due September 2015.

The current proposed National Evaluation and Research Plan is shown below:



National report: Programme data
Produced by the FNP National Unit provide Scotland level data on programme implementation: client engagement, fidelity, client outcomes

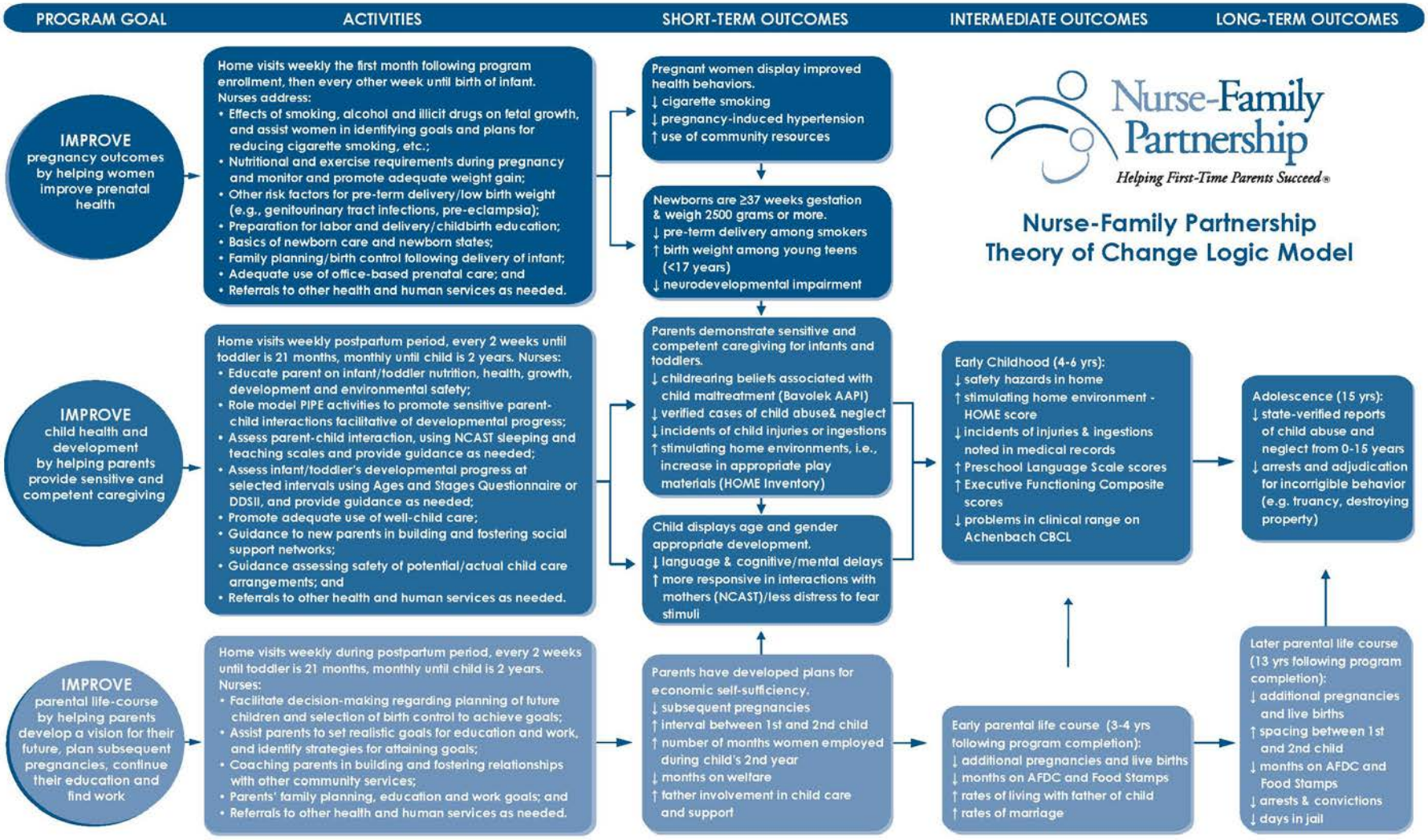
Workstream 1: Outcomes evaluation
Existing evidence base and implications for Scotland

Evaluate the impact of FNP on outcomes of interest in Scotland, inequalities and determine cost–benefit of FNP programme in Scotland

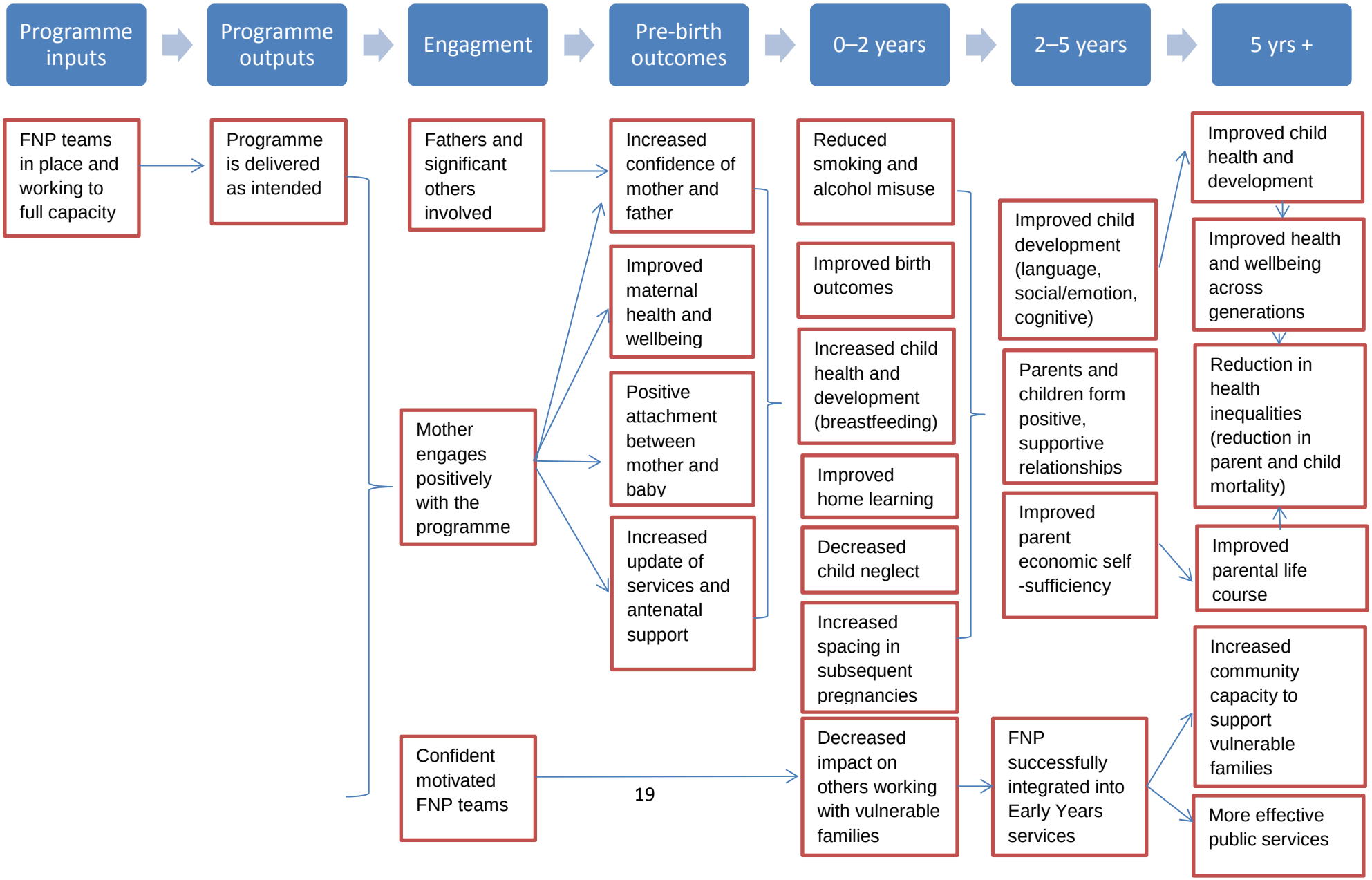
Workstream 2: Evaluating implementation
How the programmes work, for whom and in what circumstances (qualitative and quantitative data from clients, nurses, families and stakeholders) focusing on:

- Programme implementation
- Client experience
- FNP workforce experience

Appendix 3a: Original Nurse Family Partnership Theory of Change



Appendix 3b Family Nurse Partnership (FNP) Scotland Expected Outcomes



Appendix 4: Phases of international NFP replication efforts

International replication of the Nurse–Family Partnership (NFP) implementation has four standard phases:

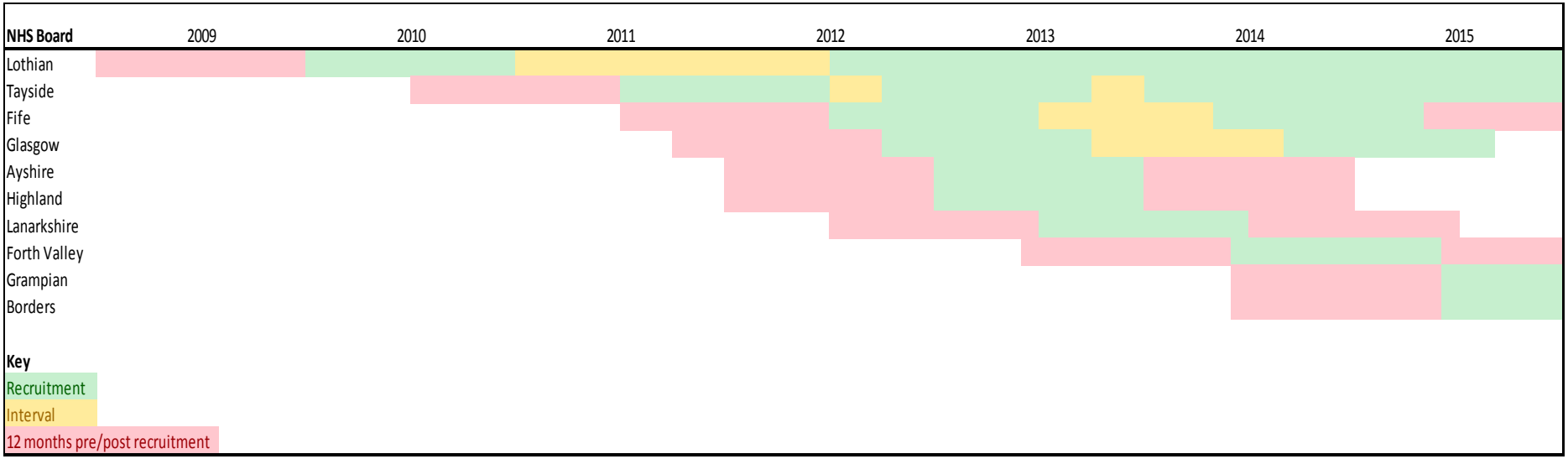
Phase One: Adaptation. Phase One examines the adaptations needed to deliver the NFP programme in local contexts while ensuring fidelity to the NFP model. The Prevention Research Center for Family and Child Health (PRC) within the University of Colorado Denver (CU) supports the implementing entity in identifying programme goals and needs and identifying how NFP services will be delivered in the context of the country's healthcare system. PRC staff consults with the implementing entity regarding adaptation of the visit-to-visit guidelines, the nurse education curriculum and materials, and other programme development materials. PRC staff will help with design of data collection, and evaluation procedures.

Phase Two: Feasibility and acceptability through pilot testing and evaluation. Phase Two involves conducting a pilot test of the adapted NFP programme with the projected number of sites and/or clients specified in the licensing agreement. The results of this work will inform what additional adaptations may be needed to ensure the feasibility and acceptability of the NFP programme within local contexts. Continued recruitment of clients in existing pilot sites may be approved if requested.

Phase Three: Randomised controlled trial (RCT). A randomised controlled trial (RCT) by the implementing entity will be conducted in Phase Three. RCTs are conducted independently from CU; however Professor David Olds (or his delegate) will consult on study design as required. During this phase, the implementing entity may seek approval to continue recruitment of clients in existing pilot and/or RCT sites until analysis of the RCT data is complete.

Phase Four: Replication and expansion. Once the evaluation of the RCT has been completed, and if the outcomes are found to be of public health significance, the licensee may decide to request approval to replicate the model in existing and new NFP sites. This phase includes building capacity and establishing sustainable systems for funding, clinical leadership, selecting and developing new sites, recruiting and educating new nurse home visitors and supervisors, and continuous quality improvement, including an information system. It is expected that societies will move to a higher level of self-sufficiency during this phase whilst continuing to demonstrate licensing requirements through the annual review process.

Appendix 5: Timing of recruitment to FNP by Health Board area, 2010–15



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