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Real-Time Evaluation of "FAMILIE FOR FØRSTE GANG"/ THE NORWEGIAN NURSE-FAMILY PARTNERSHIP PILOT

Interim Report 2: Project Phase 2017-2018

Eirin Pedersen and Wendy Nilsen

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Work Research Institute's Research & Development (R&D) report

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Foreword

This is Interim Report 2 on the real-time evaluation (RTE) of the implementation of the "Nurse-Family Partnership" (NFP) programme in Norway. In Norway, the programme is entitled "Familie for første gang" (Family for the First Time). The RTE is being conducted by the Work Research Institute at OsloMet – Oslo Metropolitan University, Norway, by Eirin Pedersen and Wendy Nilsen. The RTE was commissioned by the Norwegian Directorate for Children, Youth and Family Affairs (Bufdir).

This publication is the second of two RTE interim reports. Interim Report 1 accounted for the start-up phase of the project, while the present Interim Report 2 covers the pilot project transition to the operational phase between summer 2017 and spring 2018. The report contains both qualitative interviews compiled by the Work Research Institute (AFI) as well as descriptive quantitative data gathered as part of the pilot project. In addition to the two interim reports, a final report will be published in January 2020 containing a process and impact evaluation of the entire project period (spring 2016 to autumn 2019).

We would like to thank all the interviewees who contributed to this report.

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20 November 2018

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1 Introduction

The Nurse-Family Partnership (NFP) is a preventive intervention for high-risk families comprising up to 64 nurse home visits from pregnancy to 24 months postpartum by specially trained nurses[1] . The programme was developed in the USA over four decades by Professor David Olds. The Norwegian NFP programme follows a phased structure. Phase 1 consists of adaptation of the American programme. Phase 2 consists of piloting and trialling in the new Norwegian national context. Phase 3 consists of a randomised, controlled trial (RCT) preceding the final Phase 4 full rollout of the programme. The programme is licensed and the Directorate for Children, Youth and Family Affairs (Bufdir) is the licensee in the Norwegian pilot of the programme, which has comprised 150 families to date. At the time of writing, the NFP programme in Norway is in Phase 2.

One of the main aims of NFP is to deliver effective services to highly vulnerable families and to boost their parenting knowledge and practical skills. It is imperative to provide effective interventions for vulnerable families in order to reduce potentially adverse impacts and promote health. In addition, this has the potential to break the cycle of disadvantage, in the sense of countering the tendency of offspring to repeat parental lifestyle choices, level of educational attainment and labour market attachment. The delivery of new programmes entails robust evaluation to ensure the proper delivery of the intervention, its suitability for the national context, and its positive impact. NFP has yielded positive outcomes in other countries, and the hope is that it will be equally successful in Norway. This is the first pilot of the NFP programme in the Nordic context, which has a more effective welfare system and health service than previous pilot arenas.

1.1 The main brief

In spring 2016, the Directorate for Children, Youth and Family Affairs (Bufdir) commissioned a real-time evaluation (RTE) of the trialling of "Nurse-Family Partnership" (NFP) in Norway from the Work Research Institute (AFI). The duration of the RTE was from spring 2016 until autumn 2019.

The RTE is two-pronged, consisting of a *process evaluation* and an *impact evaluation*. The *process evaluation* addresses the formative and procedural aspects of the pilot, i.e. the insights, understanding and learnings gained along the way. This part of the RTE offers a presentation of the process of piloting NFP in Norway, the choices made, and how the programme is received by all stakeholders; practitioners, families and the service apparatus supporting them. The process RTE aims to offer pointers to whether the programme should be rolled out on a larger scale, and what might need to be changed before doing so. *The impact evaluation* aims to offer pointers as to whether the main aims of the project were achieved by way of quantitative metrics such as the number of home visits accomplished and whether the participating families reported greater self-mastery (self-efficacy) and improved mental health from the start to the finish of the programme, and to offer suggestions as to what might need to be changed before conducting a randomised, controlled trial (RCT) of NFP in Phase 3 of the programme. This will be addressed in the final report.

[1] The Norwegian pilot uses the term Familiesykepleier ("Family Nurse"), which is not an officially accredited title, but is used in the Norwegian context to denote specially trained nurses who deliver the programme to vulnerable families.

It is important to emphasise that the potential of this RTE to offer any indication as to the impact of the Norwegian *Familie for første gang*/NFP pilot is limited. The piloting of the programme, Phase 2 of the implementation, is important in trialling and identifying the adaptations required for the feasibility of programme delivery in the Norwegian context. The process RTE of the pilot may offer indications as to the effects of implementing the programme in practice and how it was received and accepted by the participating families and the welfare services, and regarding the quality of the implementation. Although we consider the development in parents and their children with reference to key measures such as mental health, self-mastery/self-efficacy, financial situation and childhood development, this evaluation is unable to offer any indication of the impact of the programme. In order to ascertain programme impacts we need both an *intervention group* (first-time parent participants in NFP) and a *control group* in order to be able to compare changes over time between these groups. Because we have no control group, we cannot exclude the fact that positive or negative impacts might be attributable to other factors or might have occurred regardless of the programme's content. However, the quantitative data in this RTE may offer a pointer as to how the programme is received by participating families, and whether key metrics might show a positive or negative trend over time. Even if a positive trend among participants does not mean that the programme has positive impact, it does offer a useful indication of what could be studied in more detail in an RCT.

1.2 Issues addressed by Interim Report 2

This publication is the second of two RTE interim reports. The present Interim Report is based on a real-time evaluation of a pilot programme in the start-up phase between spring 2017 and spring/summer 2018. The report contains both qualitative interviews compiled by the Work Research Institute (AFI) as well as descriptive quantitative data gathered by the specially trained nurses as part of the pilot project. In addition to the two interim reports, a final report will be published in January 2020 containing a process and impact evaluation of the entire project period (spring 2016 to autumn 2019).

Main issues addressed in Interim Report 2:

- 1.1.1. Document empirical findings of the onward piloting of the programme in Norway (spring 2017 to spring/summer 2018), based on the perspectives of the participating families, family nurses and the service apparatus supporting them (the local NFP boards, the national Directorate for Children, Youth and Family Affairs (Bufdir), regional centre for child and adolescent mental health and child welfare, Maternity and Child Health Care Centre service, the Labour and Welfare Administration (NAV) and the Child Welfare Service).
- 1.1.2. Evaluate delivery of the programme from multiple perspectives – including the workload of the family nurses, overlapping programmes, reception of the programme.
- 1.1.3. Clarify and analyse family inclusion and exclusion criteria in the recruitment process.
- 1.1.4. Describe the included participants and evaluate the target group.
- 1.1.5. Clarify the participants' experiences of the programme.

1.1.6. Clarify the partners’ role, presence in and reception of the programme.

The issues addressed in this Interim Report will be elucidated by summarising and discussing information from interviews with participating families, the NFP teams and representatives from the local NFP boards. In addition, we have obtained information from other sources such as the Norwegian Labour and Welfare Administration (NAV) and the Child Welfare Service. We also employed descriptive quantitative data obtained by the family nurses as part of the programme.

The majority of the quantitative data are from pregnancy, as a number of the participants were not enrolled until after the pregnancy phase. In this way we avoid drawing conclusions based on a very small number of participants who only joined post-partum.

1.3 Report structure

In Chapter 2 we provide a concise introduction to the programme generally and the pilot in Norway. We will also be giving a brief presentation of how the family nurses work and the tools used. In Chapter 3, we explain how and what data were collected for this report. The findings are presented in Chapters 4 to 8. Chapter 4 contains empirical data from the programme pilot from the perspective of the family nurses, the local NFP boards, the implementing body, and the national NFP office. In Chapter 5, we give an account of the recruitment and inclusion process. In Chapter 6 we describe the participants’ (the mothers’) experiences of participating, while Chapter 7 describes the partners’ (fathers’) experience of participation. In Chapter 8, we provide a brief discussion and summary of the findings described in Chapters 4-7.

2 Background

In this chapter we provide a concise introduction to the general concepts of the Nurse-Family Partnership (NFP) concept, and present the Norwegian pilot version (the title of which translates as "Family for the First Time").

2.1 Brief outline of Nurse-Family Partnership (NFP)

The Nurse-Family Partnership Program (NFP) was developed by Professor David Olds at the University of Colorado, Denver in the 1970s. The programme is described as a broad-based intervention programme focusing on health and social aspects for the child and family (Olds, 2002; Olds, Sadler, & Kitzman, 2007). See Table 2.1 for the main goals of NFP (Olds et al., 2002). The NFP is grounded in ecological systems theory, attachment theory and self-efficacy theory (Bandura, 1977; Bowlby, 1982; Bronfenbrenner, 1977; Rollnick, Miller, & Butler, 2008). The programme is currently in use in 43 American states and the Virgin Islands (Nurse Family Partnership, 2017; Olds, 2002). The NFP has been implemented in Canada, England, Scotland, Australia, the Netherlands and Northern Ireland, and is currently being piloted in Norway and Bulgaria. The programme has previously been trialled in Germany.

Table 2.1: Main goals of the NFP programme

Main goals of the NFP programme
- Improve adverse pregnancy outcomes by helping women improve their prenatal health
- Improve the child's health and development by helping parents provide more sensitive and competent care of the child
- Improve parental life-course by helping parents plan future pregnancies, complete their educations, and stay in work.

Documented positive effects were obtained from randomised, controlled trials of NFP such as reduced incidence of intimate partner violence (Mejdoubi et al., 2013); reduced tobacco use during pregnancy and in early infancy (Mejdoubi et al., 2014); reduced parental stress (Sawyer et al., 2013), and increased prevalence of breastfeeding (Mejdoubi et al., 2014). Randomised, controlled trials have also indicated improvements in multiple child outcomes such as physical abuse/neglect of the child (Mejdoubi et al., 2015); child development and problem conduct (Mejdoubi et al., 2015; Robling et al., 2016; Sawyer et al., 2013) and birth outcomes (Miller, 2015). Several systematic reviews of the literature have highlighted NFP as one of the few interventions that is effective in reducing a number of adverse outcomes right from pregnancy (Aos et al., 2004; Ghate, 2016; MacMillan, 2009; MacMillan et al., 2009; Williams et al, 2008). The programme involves up to 64 home visits by specially trained family nurses until the child is 2 years old. The family nurses are registered health professionals with training in the NFP programme and other relevant resources and methods. The fact that they represent the health service rather than child welfare service may also be conducive to them being more readily accepted by the families. Ideally, the family nurse visits the family every week for the first month of

the programme to establish good relations, and then pays fortnightly visits for the rest of the pregnancy.

After the birth, the frequency reverts to weekly visits for the first six weeks and then continues with fortnightly visits until the infant is 21 months. The programme scales down over the last months, in which the family nurses visit the families on a monthly basis (O'Brien 2005). The number of visits is adapted to the parents' needs – if they are low on resources or experience crises, the number of visits can be increased for a period of time (Olds 2002, Olds et al. 2006). During the home visits, the family nurses collect data on the child's development and health and on parental care-giving for the child. The family nurses also record the conversation topics and the frequency and duration of the visits (Jack et al. 2012).

The family nurses are partnered with approximately 20 mothers each. The number they are partnered with varies between countries – in Norway this amounted to 18 families per family nurse (Nilsen & Pedersen, 2018), 20 in England and 25 in the USA. The families recruited are particularly vulnerable and tend to have complex challenges. In Norway, the number of families per family nurse is lower than in other countries. This is due to the extended travel time between home visits for participants in Norway, and because Norway has a relatively short working day.

The family nurses have three main tasks: 1) Help/support mothers and other family members to alter behaviours that may have adverse impacts on the pregnancy, infant development and parental life course. 2) Help the mothers to build relationships and networks with supportive family and friends. 3) Foster contact between the family and needed health and social services.

The family nurses uses 'facilitators' (manuals/guidelines to facilitate the various intervention areas) as the basis for conversations about the different topics involved (Olds et al., 2006). Each visit is required to follow a fixed setup for conversations. At the same time, the facilitators offered must be sufficiently varied to allow flexibility for accommodating the families' differing needs. Focal elements in this are for the participants own preferences and agenda to guide programme delivery, rather than the NFP programme manual. Throughout, the family nurse must facilitate agenda-matching between the participant and nurse, by reaching agreement on topics to be covered. The programme is strengths-based, with programme delivery guided by the participants' own resources. The family nurses also perform assessments of parenting and infant development at different stages, and offer suggestions for promoting these as needed (Olds 2002, Olds et al., 2006).

In the prenatal period, the family nurse monitors maternal health and health behaviour. Special attention is given to tobacco, alcohol and illegal drugs, and efforts to reduce the use of these through behavioural change. The family nurses also monitor other aspects of maternal health such as mental health, urinary tract infections, hypertensive disorders and sexually transmitted diseases. The nurses also teach women to identify the symptoms of pregnancy complications (Olds 2002, Olds et al., 2006).

After delivery, the nurses help the parents improve their physical and emotional care of their children. This includes recognising signs of illness, taking temperatures, and communicating with health professionals before seeking care. Special curricula are used to promote parent–child interaction by teaching parents to understand their infants' and toddlers' communicative signals, enhancing parents' interest in playing with their children in ways that promote emotional and cognitive development, and creating households that are safer for children. The nurses also help mothers to clarify their goals for education and finding work, and how to go about achieving those personal goals. (Olds et al 2006).

The family nurses receive weekly supervision from their team leader – individually and in groups. Each team leader may act as supervisor to up to eight family nurses. The supervision revolves around reflection, incorporation of the theories informing NFP in their work and professional development, and case conferences and observations on the home visits (Jack et al 2012, Olds et al 2006). The team leader must have personal experience of home visits, and thus also visits her own group of participants.

2.2 The NFP pilot in Norway

The Nurse-Family Partnership programme is being piloted in Norway as a project[2] originally running from 2014 to 2019[3]. The project is costed at approx. NOK 75 million (EUR 7.6 million, USD 8.7 million). The programme licensor is Professor David Olds, University of Colorado, and NFP International is an advisory team that provides professional continuing education and implementation support for regions and nations employing the programme outside the USA. The Directorate for Children, Youth and Family Affairs (Bufdir) is the Norwegian licensee, and has assigned responsibility for implementation to the regional centre for child and adolescent mental health and child welfare in eastern and southern Norway ("RBUP"). RBUP houses the national NFP office with the head of NFP Norway, senior advisor and research support. RBUP is responsible for nurse training in the NFP programme, adaption to the Norwegian context, and the retention and analysis of data collected by the family nurses. The future for the onward trialling of the NFP programme has not been determined at the time of writing. However, the Norwegian Government's new national parents' support strategy for 2018-2021 cites NFP as strategy measure 9, stating that further roll-out of the programme will be assessed on the basis of the Norwegian pilot's results. See Figure 2.1 for the scaled-down organisation of NFP in Norway. The NFP programme is undertaken by two NFP teams based in the Norwegian capital, Oslo, and in Rogaland, covering the south-eastern and south-western parts of Norway. Each NFP team is made up of five family nurses, one of whom acts as team leader. Each family nurse attends to around 18 participants, except for the team leader who attends to around 3 participants, in addition to having the nurse-supervisor role. Each pilot region has around 75 participants, with a total of 150 families enrolled in NFP for the duration of the pilot.

The Norwegian pilot is served by three boards. A national specialist board of members representing national directorates, professional organisations and peer support workers. The two sites – Oslo and Rogaland – are each served by a local board of representatives from the entire health, social and welfare apparatus involved in service delivery to vulnerable families such as the municipal-level Maternity and Child Health Care Centres, the Child Welfare Service and the Labour and Welfare Administration (NAV).

Details of the Norwegian NFP pilot start-up process from 2014-2017 are presented in Chapters 3-6 of the RTE Interim Report by Nilsen & Pedersen (2018).

[2] In the Norwegian pilot, the original Nurse-Family Partnership programme is entitled "Family for the First Time" (Familie for første gang), but in the evaluation, we refer to it by its international title and abbreviation, NFP.
[3] Due to delays in recruitment of families in the initial phase, the pilot has been extended to run until mid-2021 when the last child reaches its second birthday and the family is released from the intervention. This is termed "Phase 2": Piloting and trialling.

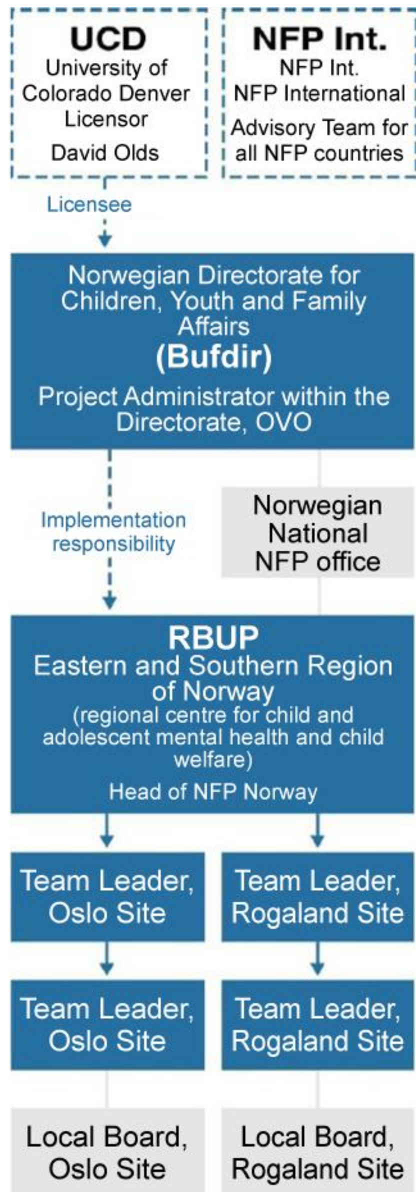


Figure 2.1. Scaled-down organisation of NFP in Norway (adapted from Brekke & Jakobsen, 2017)

2.1 Experiences from Interim Report 1

In Interim Report 1, we demonstrated that the Norwegian NFP pilot had made good progress in recruiting nurses for the NFP team and conducting the associated NFP nurse training and seminars. There was much enthusiasm at every level from the national directorate, through the regional centres to the family nurses and NFP boards. At the same time, we indicated the delay in recruitment as posing a challenge for the trialling process (Nilsen & Pedersen, 2018). The deadline for recruitment of the predefined target of 150 families was consequently extended, initially from 1 August 2017 to 31 December 2017. From there on, the project decided to dispense with the constraints of a deadline. The teams estimated that 150 participants would be recruited by autumn 2018, and this was duly accomplished by October 2018.

In Interim Report 1, we also discussed overlapping and competing programmes with reference to published documents, an online questionnaire-based survey report and interviews with both of the NFP teams, participating families and supporting service apparatus (Nilsen & Pedersen, 2018). Our conclusion thus far was that there was little indication from both of the NFP teams, families and local NFP boards of NFP overlapping with other interventions and services. Because at that time many of the families had yet to be recruited, it was too early to offer any indication about overlaps, and we concluded that it was important to involve other parts of the health service apparatus such as the Maternity and Child Health Care Centres and other services.

2.3 The findings of an independent (SINTEF) report on the future organisation of NFP in Norway

In autumn 2017, the Directorate for Children, Youth and Family Affairs commissioned a report on the future organisation of NFP in Norway from the independent research organisation SINTEF and Work Research Institute (AFI) (Lippestad et al. 2018). The report found that organisation of the pilot posed certain challenges in terms of coordination with other municipal services, and the recommendation was for a continuation of the programme to recruit family nurses at the community/municipal level. The report also recommended that the size of the teams be increased, as they were vulnerable to the effects of excessive workloads, sickness absence and inadequate holiday cover given that they consist of four family nurses and a team leader.

3 Data collection method

For this interim report, we refer to qualitative and quantitative data. The qualitative data were collected by Work Research Institute (AFI) and consist of group and individual interviews with representatives of different groups involved in the project. The quantitative data set in the present report was collected by the family nurses on recruitment (inclusion and exclusion criteria), on participant characteristics, and on delivery of the programme and participant responses to it.

3.1 Qualitative data

Qualitative individual and focus-group interviews were conducted for the present Interim Report. See Figure 3.1 for an overview and sections below for details of interview procedure. All interviews made use of a semi-structured interview guide.

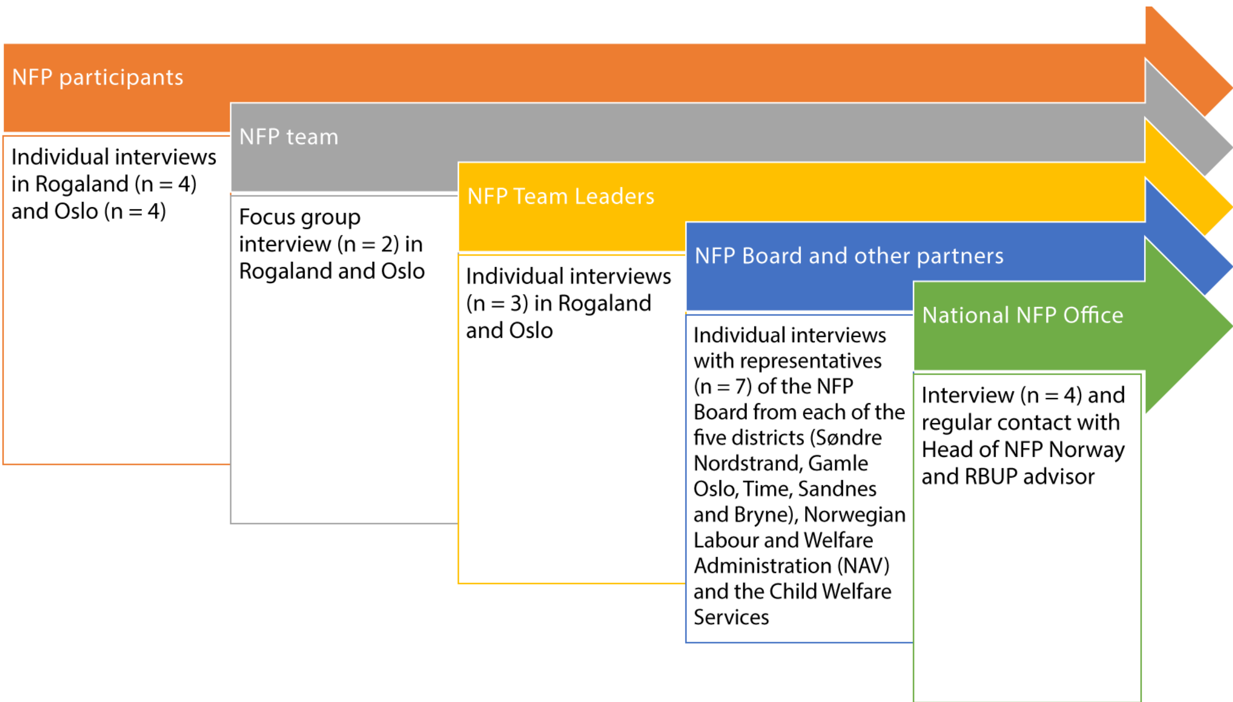


Figure 3.1. Overview of qualitative data collection in the period 2017-2018 for the purposes of the present Interim Report. N=number of interviews, not the number of interviewees

3.1.1 Interviews of participants

We interviewed ten participant families in the project; five in each pilot region. Four families were interviewed in spring 2017, and 9 families were interviewed in spring 2018. Three of the families interviewed in 2017 were re-interviewed in 2018. We also consulted 10 families, and conducted 13 interviews.

The participants were recruited by the family nurses. In three interviews, the family nurse was present at the interview at the request of the participant. In a few instances, the family nurse attended the interview only to introduce the interviewer and participant to each other before leaving. While the majority the interviews were conducted at the home of the participant, three were conducted in a meeting room at the NFP team offices in Oslo.

Among the 10 families, four of the mothers were cohabiting with a partner. In three of the interviews, the father of the child was present at the interview. The interviews lasted from 30 to 90 minutes, with the majority lasting around 45 minutes. The interviews revolved around experiences of employing the programme such as inclusion, the content of programme delivery, the relationship with the family nurse and any overlap with other services. The variation in duration was due to variation in the extent to which participants opted to share their own personal history. The interview guide allows scope for the participant to choose how much they wish to share, to prevent the participants feeling obligated to talk about and share personal information. The interviews with the participants are intended to elicit their experience with the programme. This means that their personal accounts are not focal, even where this might provide an important and interesting contextualisation of their experience of the programme.

3.1.2 Interviews with the NFP teams

We conducted group interviews with the two *NFP teams*. Each interview lasted for about two hours, and the aim of the group interview was to elicit the common experiences of the family nurses, and where their experiences converged or diverged. In advance of the interviews, the nurses were sent a list of interview topics, which concerned workload, cooperation with adjacent agencies, partnering and supervision from the regional centre for child and adolescent mental health and child welfare (RBUP), cooperation within the team and supervision and guidance from the team leaders. In addition, the family nurses were asked questions about their experiences of participant recruitment and inclusion, and to describe the participants and the challenges they address with them. For each team a *new midwife* was recruited. The midwives were interviewed after the group interview for about 30 minutes to elicit their experiences of working on the programme, the training they received in Scotland, and the experience of joining the pilot along the way.

3.1.3 Team leader interviews

Interviews were conducted with the two *NFP team leaders* for approx. 1 hour's duration. They were asked many of the same questions as the team members to elicit the perspective of the team leader, and their experience of heading up the team, liaising with the national NFP office and other professional partners. In addition, extra interviews were conducted with the Rogaland site team leader in order to gain more information about two participants where it was believed the team had averted care proceedings.

3.1.4 National NFP office

We interviewed the head of NFP Norway and senior adviser to the NFP Norway programme under the regional centre for child and adolescent mental health and child welfare (RBUP). The interview lasted approximately 2.5 hours. In addition, we conducted an individual interview with the head of NFP Norway, lasting approximately 1 hour, to gain more detailed information about the NFP pilot and the rationale for some of the decisions made, such as deferral of inclusion in the programme and new appointments in the project. In addition, we conducted three telephone interviews over the autumn/spring, and maintained regular email contact in order to receive regular updates on the pilot.

3.1.5 Regional NFP boards and partners

We interviewed seven representatives from the two districts in Oslo and the three municipalities in Rogaland, which were all involved in the programme via the regional NFP boards. These interviews were conducted individually, and each lasted approximately one hour. We also interviewed representatives of NFP partners within the Labour and Welfare Administration (NAV) and the Child Welfare Service in the Gamle Oslo district of the Oslo site. These were individual telephone interviews lasting approximately 30 minutes.

The spring-period data collection yielded a great deal of information and insights into the experiences of the vast majority of all parties involved in the Norwegian NFP pilot. We did find that we were lacking interviews with representatives who deal with referrals from the local Maternity and Child Health Care Centre. However, we judged that their perspectives were covered by representatives of the national NFP board, since many of these work in the district and therefore have in-depth knowledge of procedures for inter-agency cooperation with the Maternity and Child Health Care Centre. Conversely, we did determine that midwives responsible for referring pregnant women to the NFP programme would be useful to interview on their experiences of collaborating with the programme. This group will consequently be included in the final round of data collection in 2018-2019 in order to shed further light on the participant recruitment process, and also on how the NFP programme ties in with other services.

3.1.6 Challenges posed by the qualitative data

Recruitment of participants for the interviews was not as systematic as we envisaged. The family nurses were responsible for recruitment, and selected participants they believed would be of interest for us to interview, and who were keen to be interviewed by us. For several reasons, it was not possible for them to ensure the planned participant representativity. This is due partly to the delays in recruitment that resulted in only a limited number of participants who could be invited to be interviewed, and to invited participants declining to be interviewed. The impact of this was greatest in the data collection in spring 2017 when only four participants were interviewed, which resulted from the fact that only a limited number had been included in the programme, and several of them declined to be interviewed.

We interviewed participants who varied in age, level of educational attainment and vulnerability. We interviewed only three partners, and none of ethnicity other than Norwegian, or whose first language was not Norwegian. It would be of interest to interview subjects participating in the programme via an interpreter and of different ethnic origin to elicit if their experience differs. Another group of participants who would be interesting to interview would be those who were included in the programme but subsequently opted out, to learn their reasons for withdrawing.

This was also not possible for us to realise. The purpose of the interviews of participants was to gain knowledge of their experiences of participating in NFP, and we believe we succeeded in eliciting relevant and diverse experiences of participation. As it is not possible to survey participants via this type of qualitative interviews, we do not see the lack of representativity in the sample population as representing a major problem.

3.2 Quantitative data

The family nurses gather data at several points in time. See Figure 3.2 above for an overview of quantitative data and the timing of their collection.

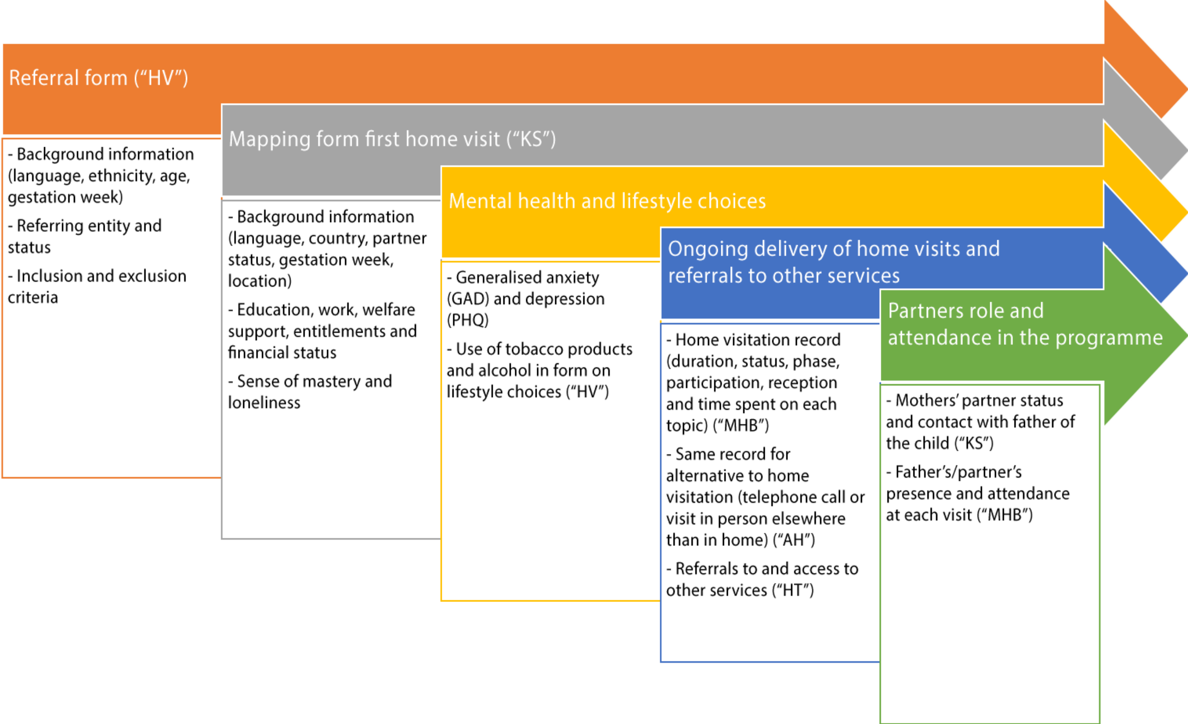


Figure 1.2: Overview of quantitative data collected by family nurses in 2017-2018 as used in this Interim Report

3.2.1 Inclusion, exclusion and attrition

The family nurses record participant age, language, ethnicity, gestation week, location, referring entity, referral status, inclusion criteria and exclusion criteria at the initial screening interview of suitable participants on a referral form. The present report relies on information recorded on this form to describe who was included/excluded and the reasons for inclusion/exclusion.

3.2.2 Demographic characteristics

The family nurses record demographic background data at the first home visit, using a mapping form. This form includes information about participants such as country of birth, language, ethnicity, partner status, place of residence, household members, education, employment, and employment income, sickness absence record and welfare entitlements. This information is used to delineate those who participate in the programme.

3.2.3 Mental health, self-mastery (self-efficacy) and loneliness

The family nurses record information on mental health status, mastery/self-efficacy and feelings of loneliness. In this Interim Report, we rely only on data collected during the prenatal period. See Appendix 4 for more information about the questions included in these instruments. Because only a limited number of participants were included in the programme for a sufficient duration, the present report draws on these data as a baseline for participant physical, mental and emotional status in the early phase of the programme.

3.2.4 Delivery of the programme

The family nurses record information about each home visit on a designated form: Home Visit Attendance Record (*Møteskjema for hjemmebesøk (MHB)*). This is used to record the duration, status (completed, attempted or cancelled), programme phase/date of visit, who was present/attended the home visit, reasons and originator of any cancellation of the visit and recommendations/referrals to other services. The family nurses also collect data on participant involvement, understanding of and acceptance of the matters discussed, and the percentage time spent on each topic at each home visit. The family nurses also record if the contact was outside the participant's home in an "Alternative to Home Visit" form (AH). On this form, similar data were recorded to those on the MHB in addition to the alternative employed (e.g. telephone contact). If the family nurse makes a referral or recommendation to other services, or discovers that other services are used by the participant, a "Referral to other Services" form (*Henvisninger til andre Tjenester-skjema (HT)*) is completed. In this form, the nurse records the programme phase, type of service and whether the participant receives the service, and whether this service was recommended by the family nurse or others.

3.2.5 Challenges posed by the quantitative data

Analysis of the quantitative data poses a number of challenges. Due to the delays in the recruitment process, by May 2018, the total number of families included was 133. Of these, only a limited number of women had given birth, and only a limited number had received more than ten home visits from their family nurse. This prevents reporting on infant development and health, on the conduct of home visits post-natally, and on the father's contact and interaction with the infant. In addition, only a limited number of families had completed a sufficient number of home visits prenatally for us to be able to discuss our fidelity to the NFP model for the entire cohort. The first families enrolled in the group are somewhat different to those enrolled subsequently. Both in that the programme operates with somewhat broader inclusion criteria initially (see Chapter 5.1) and in that the family nurses spent

significantly more time and formed closer relationships with the families at the start of the pilot (see Chapter 4.3). This makes it difficult to generalise on the basis of these families. In addition, there were substantial differences between the families in Oslo and Rogaland with regard to recruitment for example (onward inclusion in Oslo) and demographic factors (age and educational attainment). We therefore had very small groups for analysis at this stage. As we will be referring to in the findings, a great deal of data are missing for certain variables.

However, these challenges will be somewhat reduced in the final report, since by then, the programme will have been of longer duration. In consequence of this, the present Interim Report relies on descriptive analyses of participant inclusion, exclusion and attrition; description of the sample included, and a general description of the conduct of the home visits. We have described the factors addressed below.

4 Programme pilot – experiences 2017-2018

In this chapter, we report on the experiences of the key stakeholders in the Norwegian pilot. These are presented as brief summaries of the activities undertaken within the Directorate for Children, Youth and Family Affairs (Bufdir) (the commissioning body), the regional centre for child and adolescent mental health and child welfare in eastern and southern Norway (RBUP) (executive body) and the NFP boards (local platforming and advisory capacity). This is then followed by a more comprehensive section on the family nurses' experiences of working on the project and programme provision. The participants' experiences are covered in a separate chapter (Chapter 6).

4.1 Directorate for Children, Youth and Family Affairs (Bufdir)

The Norwegian Directorate for Children, Youth and Family Affairs (Bufdir) is the licensee, and has the principal responsibility for the pilot commissioned by the Ministry of Children and Equality. The Directorate supervises the NFP National Office under the centre for child and adolescent mental health and child welfare in eastern and southern Norway (RBUP) and liaises with the NFP programme's licensor and reports on the Norwegian pilot to Prevention Research Center for Family and Child Health at the University of Colorado, Denver.

NFP is cited as an intervention in numerous national political strategies and plans in the field of childhood and youth, and plans for this field that post-date the start-up of the Norwegian NFP pilot. These include the Children Living in Poverty strategy (2015-2017); Escalation Plan against Violence and Abuse (2017-2021), and the Norwegian Government's new Parental Support Strategy (2018-2021). The Directorate for Children, Youth and Family Affairs (Bufdir) is currently in a phase of exploring the options for the onward organisation of the Norwegian NFP pilot in line with the programme's four phases. The same Directorate has also had a report prepared on options for further organisation of the programme if it is to be rolled out in Norway[4]. In addition, the Directorate commissioned a small-scale socio-economic analysis of the anticipated societal benefit and consequences of the NFP programme for local authorities in Norway (Oslo Economics 2018).

[4] For more information on the results of this report, see Lippestad et al. (2018) *Utredning av mulig fremtidig organisering av Familie for første gang – Nurse Family Partnership i Norge.* SINTEF

4.2 National NFP office

The regional centre for child and adolescent mental health and child welfare (RBUP) has the NFP-side responsibility for the pilot, and liaises closely with NFP International. This office is staffed by the head of NFP Norway and the senior advisor and research support. In addition, the national NFP office is assisted by RBUP for collection, retention and analysis of the quantitative data. Over the course of autumn 2017 and spring 2018, the head of NFP Norway and the senior advisor hosted the final NFP training modules, and provided instruction in Marte Meo, Pipe and NBO. RBUP also has personnel responsibility for the nurses on the NFP teams. In 2017 and 2018, RBUP was responsible for recruitment and appointment of four new family nurses. In addition to running the programme, providing training, research and personnel responsibility, RBUP is responsible for adaptation of the NFP programme to Norwegian conditions.

This is an ongoing project as they gain new experience of the programme. To support this work, the regional centre has appointed a working group composed of two representatives of each team. The head of NFP Norway also attended all NFP board meetings.

4.3 NFP boards

In the start-up phase, the local NFP boards were key facilitators for recruitment of participants, in that they were able to provide information and involve front-line agencies/services as referrers and co-stakeholders in the programme. After this phase, the NFP Board provided inputs and advice for the team leader and head of NFP concerning progression, inclusion and the target group. The board also has representatives from partner services such as the Maternity and Child Health Care Centre, the Labour and Welfare Administration (NAV) and the Child Welfare Service, and representatives of these have assisted in coordinating care with the NFP team within their respective entity. In Rogaland, the local authorities of Sandnes and Time conveyed their wish for a possible continuation of NFP if the pilot evaluation demonstrates positive outcomes. To that end, the NFP Board has been involved in the discussions concerning the financing and further organisation of the programme.

4.4 Inter-agency cooperation

NFP is intended as a programme that cooperates with adjacent services, where the family nurse helps the participants in identifying the service they need assistance from. Cooperation with adjacent services is also essential because the NFP concept is based on referral of participants from those services. Representatives of the Maternity and Child Health Care Centre services, the Child Welfare Service, and the Labour and Welfare Administration from the Rogaland and Oslo sites were interviewed concerning their cooperation with the NFP teams. On the whole, they report that cooperation between the services is satisfactory, but also that systematic information sharing concerning a given participant could be problematic.

The family nurses state that the midwives and nurses at the Maternity and Child Health Care Centre are familiar with the programme. The Centre reports that cooperation on referrals with the family

nurses is effective, and that they often achieve a balanced division of care. It took some time to raise awareness of the programme within adjacent services and diffuse information about the target group. In Oslo, this was more challenging and in the start-up phase, the number of referrals was very limited. This was overcome by means of targeted efforts within the team and the assistance of the NFP boards.

The Centre reports that they initially were under the impression that the family nurses would take over some of the care delivery by the Centre, but that they appreciate that this would be contrary to the programme requirements
– participants must not forfeit care-as-usual as a result of their enrolment in the Norwegian NFP.

The Maternity and Child Health Care Centre service states that they find the cooperation to be lacking in systematic procedure. This lack is attributable partly to the fact that the family nurses are employed at regional level under RBUP, and that the Norwegian NFP programme is organised extraneously to the standard welfare services, with no joint client records. Because client care records are not shared, it is difficult to determine the service delivery to different individuals, and who is responsible for what. Situations have arisen in which a Maternity and Child Health Care Centre and an NFP family nurse each believed that the other party was in contact with an NFP participant during a nurse holiday period, as a result of which the participant received no care during that period. At the same time, the family nurses report that some participants do not wish their participation in the NFP programme to be disclosed to the other services. Out of respect for the participant's wishes, the family nurses therefore feel obliged not to share information with, or coordinate care with the local Maternity and Child Health Care Centre concerning the participant.

The majority of the representatives of local authority services perceive the Norwegian NFP programme as care provision that is separate from other care services, and that it has no overlap with local authority care. At the Maternity and Child Health Care Centre service in Stavanger, there is still some concern about overlap because the majority of the participants there avail themselves of other local authority services such as child and maternal health clinics offering additional care for mothers with substance use and mental health problems, family centres/family groups, open preschool etc. For this reason, they do not report any reduction in influx to other services in women enrolled in the Norwegian NFP programme. They also report that many at-risk mothers(-to-be) are multiparous, so the requirement that the participant must be pregnant with her first child excludes many expectant women in need of close care delivery.

The Child Welfare Service in the Gamle Oslo district rates the programme as being of a high standard and exceptionally well designed. They, would, however like knowledge from the programme to be shared within the municipality/district to allow others beyond the family nurses to put it to use. They state that the programme is as yet too small-scale for its presence to be felt. The 150 children in the programme make up too small a number in relation to the numbers attended to by the Child Welfare Service. The Child Welfare Service in Time Municipality regards the programme as a targeted care intervention, and the nurses providing the care as highly competent. The Child Welfare Service in Time Municipality also highlights the importance of all municipal services being allied in service delivery to vulnerable families, and that the organisation of the Norwegian NFP programme extraneously to the other services makes cooperation more challenging. The Child Welfare Service in both regions reports that it has had to remind the family nurses of the duty they have as health care personnel to notify the Service of any concerns about a child's welfare.

The Labour and Welfare Administration (NAV) regards it as very positive that the group of participants in the Norwegian NFP programme receive closer follow-up. They report that NAV officers may have heavy caseloads and a great deal of information to consider when providing client follow-up. For that reason, coordination with the family nurse surrounding participants would facilitate information flow to NAV case handling. They often find that NAV service users are unaware of the workings of the employment and welfare system, and have difficulty asserting their rights vis-à-vis NAV officers. The family nurses are in a position to remedy this situation by supporting the participants in the meeting situation and helping them to navigate the employment and welfare system.

4.5 Team experiences

The teams of family nurses are made up of four nurses and one midwife. Both the midwives and the nurses are qualified to serve as family nurses, and for the National NFP Office, it is important to emphasise that both professions bring key skills to the team.

4.5.1 Workload

In adaptation of NFP to the Norwegian context, it is of interest to explore the experiences of the family nurses, and how they rate their workload during the pilot period. Norwegian working life differs from that in America in a great many ways. In specific terms, the working week is shorter, and the Norwegian family nurses do not have the possibility of visiting as many mothers/families as in the American programme.

This is taken into account in that each family nurse attends to around 18 participants, which is somewhat lower than in the USA (25) and the UK (20). One of the benefits of the programme is that it is an opportunity to provide more intensive follow-up to a relatively large number of participants per family nurse. The municipalities of Rogaland suggest that the opportunity to attend more intensively to a high number of participants is important for their ability to determine the value of the programme, and believe that it is important not to further reduce the number of participants per family nurse. In this section, we present team-member experiences concerning their NFP workload, and an evaluation of how well they were able to attend to 18 participants. Three main factors stand out:

1) Much time is spent on travel between participants
2) Much time is spent on inter-agency cooperation (e.g. with the Child Welfare Service, the Labour and Welfare Administration, Maternity and Child Health Care Centres)
3) Gaining full familiarity with the NFP programme and contributing to the pilot is a major commitment to be balanced with the full caseload of 18 participants

The family nurses have a hectic working day. This is most apparent in the interview with the Rogaland team. This team has made the most progress in participant recruitment, and over time, the family nurses have served a full caseload of participants. The same issue is raised in the interview with the Oslo team. The family nurses report having to spend a great deal of time on preparation and post-visit activities. For example, much time is devoted to NFP training. The programme has several training

modules, but the family nurses report that they spend a great deal of time in getting to grips with the NFP programme over and above the organised training. In addition, they receive training in tools such as Marte Meo (parent-child mapping and interaction intervention) and NBO, Newborn Behaviour Observation (a tool to help parents to understand their child's signals), which they spend time learning how to use, and which involve additional work commitment before, during and after a home visit.

> *"We fail to get everything we're supposed to do done properly, and we're putting in overtime outside working hours. That might be at the expense of some forms, which you were supposed to complete, but are likely to slip your mind. Or else you fail to do a Marte Meo properly. You don't manage to prepare for what you're supposed to be doing. My preparation time is 5-10 minutes, but should be 30 minutes, right? Plus, then there's the post-visit paperwork to update the mother/child medical record, which has to be done, but that means doing it in the afternoon, which is our own time, so we have to record overtime for that".* Family nurse, Rogaland site.

Accomplishing a proper home visit requires time for preparation; time which may be limited in a hectic workday. Much of the extra workload is attributed to the programme being unfamiliar to all parties involved, and the steep learning curve alongside proper programme delivery to the participants.

> *"If you have 18 participants to visit every other week, and on top of that have meetings and other commitments, then it just doesn't square. You tend to have three on a single day, and a few days where you visit two".* Family nurse, Rogaland site

The family nurses describe that to manage to complete all home visits on time, they often have to do three visits a day. According to the family nurses, a home visit takes two hours on average, including preparation, which leaves little time for completing forms after the visit, and for the other obligations such as paperwork, screening interviews and self-study activity. Travel between each participant may also be time-consuming. Most weeks also involve counselling, group meetings and other types of meeting activities, which are also time-consuming.

In the pilot start-up phase, the family nurses had fewer participants, and had the opportunity to attend more closely to the initial participants. But as more participants were enrolled, the family nurses report that in the first family-partnerships they were too closely involved, since they were unable to maintain the same quality and quantity of counselling now that they had a full caseload of 18 participants.

> "*The first participant she drained me, and I let myself be drained because it was such a thrill initially. That experience told me that we can't cope with that. I can't make myself available to everyone like I was to her; it's not doable".* Family Nurse, Rogaland

Several of the family nurses report that the initial participants received closer care delivery than those who joined the programme subsequently. This close care delivery amounted to a willingness to be readily available to the participant. This meant that the family nurses were taking phone calls in the evenings and at weekends, even if the calls were not about urgent concerns. The family nurses describe a learning curve in establishing a trusting relationship with the participants, while shielding themselves and preserving their personal privacy. To that end, they have increasingly started setting out personal limits for the interaction, as in instructing the participants on when it is acceptable to call outside working hours, for example, in case of emergencies they need support in. At the same time, several of them highlight the balance to be struck between proper follow-up and avoiding being drained

personally:

> "*The relationship built up between the participant and me is special, we are close and familiar, and as I see it, that's one of the success factors. It's the reason why things are working out so well for her. That said, for me personally, and so as not to get totally run down, I think it's important to be more firm about setting clearer limits".*
> Family Nurse, Rogaland

For the family nurses, the necessity of setting limits to their own time commitment has become more pressing as they have been assigned more participants. They report that the support they were able to provide to the initial limited number of participants was not feasible for a full caseload of 18 participants. Striking a balance between the quality of care delivery and the sustainability of commitment-level is hence a key experience gained by the family nurses from the start-up phase. This applies in both Rogaland and Oslo, but in Oslo, the team had a longer period in which they had only a limited number of participants, and they found that their programme delivery to the initial intake was difficult to sustain when their caseload was enlarged. This entails a change in the volume of programme delivery to the participants, and that the family nurses had to adjust their subjective perception of what was adequate or "proper" programme delivery.

At the same time, the family nurses wished to nuance this picture to the effect that it is not necessarily the relationship and programme delivery that are demanding, but rather the activities surrounding them. They highlight having a close relationship with the participant as a valuable aspect of their work, while updating client records and completing training was seen as overload on top of programme delivery.

> *"I don't see the relationship with the participants as that demanding; that doesn't cause the work overload - I see that as very balanced. Instead, it's all the extra work. The work of updating client records and getting to grips with the programme while actually delivering it. That's what takes up so much of our time.* Family Nurse, Rogaland

4.5.2 Travel time

Travel from one participant to the next takes a great deal of time. The family nurses report that long travel time is at the expense of time spent on preparing home visits and the number of visits they have capacity for per day. Many of the home visits involve using equipment like dolls, a video camera etc. Using these things calls for planning and coordination with the rest of the team.

> *"There's a big difference between managing three visits in the city centre (Gamle Oslo district) where you spent just twenty minutes on travel, and where you can stop by the NFP office and offload stuff, to visiting participants on the outskirts of the city (Søndre Nordstrand district). Today, I had 45 minutes' effective travel time, meaning that I only just made it. Some days, I won't even manage two visits if I'm off work at 3:30. And that doesn't even include preparation and paperwork afterwards. [….] THREE visits daily multiplied by five, [….]it can't be done".*
> Family Nurse, Oslo

For the teams, it is important to have time to meet with the rest of the team. The family nurses spend most of their working time visiting participants or travelling between visits. Having time to meet the

team is crucial for sharing experiences and conferring with each other. But where the workload is heavy, the team is short on this time.

> *"We need time to see each other, to confer as professionals. Because we work solo, it's crucial for us to get together and have case conferences".* NFP-team, Oslo

4.5.3 Delivery of programme

The programme is comprehensive to the extent that the family nurses report that they have spent a great deal of time on it, on gaining an overview and determining its *mandatory* versus *optional* components. Having completed all of the training is immensely helpful, as is extended use of the programme.

In the first interviews in 2017, the family nurses had certain reservations about their delivery of the programme. They found that it was difficult to gain an overview of the different facilitators/programme areas, and that some components were not adapted to Norwegian conditions and policies. In 2018, the family nurses expressed a fundamentally positive attitude to the programme – and that NFP offers them precisely what they need for programme delivery to participants. The programme is sufficiently flexible for it to be adaptable to the diversity of the participants, and offers them materials for the different types of needs and situations they face. The family nurses completed the three training modules of the NFP programme, which follow the phases of participant care delivery: pregnancy, infancy and toddler phase.

In the American trial, O'Brien et al. (2012) found that the family nurses who managed to recruit and retain the largest number of participants in the programme were those who were flexible in their approach, who were able to adapt their service delivery to the needs of each individual participant, were willing to modify their own conduct, received supervision and who changed their approach if their strategy failed. The ability to adapt the programme to participant needs may be even more crucial for especially vulnerable participants who have less stability in their daily lives and varying needs.

For the family nurses in the Norwegian pilot, the flexibility in the programme allows them to exceed the usual limits to their sphere of responsibility in the services, and to offer participants the follow-up they require, without having to refer them to another entity.

> "*One participant I have at the moment is fearful about leaving the house because she has severe anxiety issues, so we can practise that, and do things together the first time. The flexibility of that is a special aspect of this project, which makes it very different in that it means we don't have to go 'no, we can't do that, that's not possible for us to do'". Because that tends to be how it goes: 'no, I'm afraid that's not an option', 'I'm afraid I don't deal with that side of things', 'so, you'll have to visit the job centre/benefits office', 'so you'll have to check that with...', right?. It also makes it uncharted territory*". NFP team, Oslo

4.5.4 Inter-agency cooperation

The family nurses perceive their primary task as being service delivery to the participant. However,

much of their time is spent on other commitments, such as case coordination with other services.

> *"We have a number of appointments with the child welfare service and supervision from a psychologist. And in a sense that time is also deducted from the client time; it eats into the time we could have spent with the participants, but obviously these things are ABSOLUTELY essential. It's not like I'd want to dispense with that. Plus, we have all these inter-service meetings as well, with the various services involved with the families. For example, the Maternity and Child Health Care Centre, District Psychiatric Outpatients' Centre and the Child Welfare Service".* NFP team, Rogaland

The family nurse is not intended to cover all the needs of the participants, but to help the participant to find other helpers, or to support them in dealing with the care and welfare system such as the Labour and Welfare Administration (NAV) and the Child Welfare Service. Helping the participants to receive help from other services such as a psychologist or Maternity and Child Health Care Centre is thus one of their tasks. At the same time, coordination with other services is time-consuming and may be at the expense of other services to the participants:

> "*Yesterday, I accompanied a couple to the maternity centre. They are having a baby in three weeks' time. And obviously, that takes time, because I had to drive over to their home to fetch them, and then we had to drive to the centre, and their appointment there took an hour, and then we drove back again, so I spent two and a half hours.* And then they go: *'but don't you have to come inside to talk to us?' Which means they were expecting me to also need to discuss things with them. But I didn't have the option of doing so, right? Because I'd spent the time I had with them already*". NFP team, Rogaland

There are several aspects to inter-agency cooperation. One of the family nurses' tasks is to help the participants to seek help from other services, such as a psychologist or the Child Welfare Service. The nurses need to be familiar with what help is available, and where from, and they need to encourage and support the participant in contacting those services and arranging for the help independently.

The family nurses report that their involvement may also be crucial in participants receiving appropriate and adequate care or services from other entities. They might, for example, provide help in filling out forms, but also attend appointments at the NAV job centre/benefits office, and act as "advocate" on behalf of the participant. Their familiarity with the healthcare and welfare system and insights into the participant's needs may be crucial in ensuring that the participant receives the care or assistance they need and are entitled to.

The family nurses can assist in coordinating other services' interventions for the participant by attending meetings and appointments, and assisting with advocacy regarding participant needs vis-à-vis the healthcare or welfare services apparatus.

> *"There are obviously a lot of case conferences, especially for women who were already receiving inter-agency services before their pregnancy. The entities might be a health and social service office, a GP, child welfare service, or Maternity and Child Health Care Centre. We've now tried to make it standard procedure to seek to involve the Maternity and Child Health Care Centre before the baby is born. I've also had several meetings with the mental health service. The meetings I attended were convened to clarify and separate inter-agency roles. Who does what, and the signals we should be alert to if a participant's mental state deteriorates. A support plan or crisis plan or drawing up a plan for inter-agency coordination going forwards,"* NFP team, Oslo

The family nurses can help to clarify the role and jurisdiction of the different health and welfare services vis-à-vis the participant, and can help the participants in their contact with those services. The family nurses are typically those with most insight into the participant's vulnerability and needs, and they may therefore take on a central role in coordinating and involving different services.

4.5.5 Team attrition and new appointments

Of the ten family nurses who joined the programme initially, four had left by autumn 2018. In Oslo, a nurse and a midwife resigned, and in Rogaland a midwife and a team leader resigned. The head of NFP Norway states that the reasons for leaving the programme concerned the family nurse's professional dissatisfaction with the way of working, while the other resignations were for personal reasons.

The newly appointed family nurses have completed their initial training week in Scotland. The two we interviewed report that they rate this as satisfactory, in terms of training content and its English-language delivery. The NFP office is planning to host the rest of the training itself, as there are now so many new recruits (almost half of the NFP) teams that this is now expedient. The newly appointed family nurses also report that they are joining a well-established project in which their colleagues have a great deal of experience to rely on. They find that this makes it easier for them to quickly get up to speed on a high level of programme delivery. The plan is for new team members to be tasked with building up their own caseload of participants, and that they need not necessarily take over all the participants of the exiting family nurse.

Attrition among family nurses poses a high risk of attrition among the participants they have attended to. The most vulnerable participants, who are the most difficult to build up a relationship with, are particularly likely to opt out of the programme rather than switch to another family nurse.

The cost of this to the project may be very high in that it also means losing the experience amassed among the family nurses, and the cost of recruiting and training new family nurses. The national head of NFP believes that the teams will be very vulnerable with their current scale, with four family nurses and one team leader in each team, which is the minimum size for an NFP team. This leaves

only a few team members to count on, and few who can fill in for sick leave, for example. The head of NFP believes that a continuation of the project should be based on the maximum size, which is eight family nurses and one team leader.

4.6 Averting care proceedings

During the course of the project, the Rogaland team reported that in two cases, they were instrumental in averting proceedings to take an infant into care. One of the main goals of NFP is to promote participant parenting skills to prevent their children being taken into care. The trial in Norway has no control group, and consequently has no means of measuring impacts. To do so would require a randomised, controlled trial that would allow comparison of changes over time between enrolled and non-enrolled families.

However, the findings of the pilot offer indications that the programme facilitates prevention of care proceedings in a Norwegian welfare context.

The team leader in Rogaland believes that they have two cases in which the NFP programme was instrumental in averting care proceedings. We present these two cases as examples that the pilot may have had a positive impact on the risk of children being taken into care. The account of the events that transpired and the problems entailed in these two cases is based on interviews with the Rogaland team leader.

Case 1

The mother in the participant couple is from another country, has little knowledge of Norway and a very limited social network. She also lacks Norwegian language proficiency, but is able to communicate in English. The father has mental health problems, notably depressive tendencies. He had a challenging childhood and youth, the effects of which continue to take their toll on him. Nevertheless, the family nurse judges that both the mother and father still have many personal resources. When the baby is born, there is already a care apparatus in place around the parent couple, which involves the Child Welfare Service, the local Maternity and Child Health Care Centre and the family nurse. The parents also make use of residential respite care services in the first few weeks after the baby is born. During this period, the family nurse went to great lengths for the family, yet was still within the limits prescribed by the programme for attendance and contact. She visited the couple several days in a row, provided extensive support and was available to answer phone calls and text messages. Some of the work entailed acting as the inter-agency coordinator for the services provided, but most of her work was to support the parents and build their knowledge and confidence in their parenting role. Specifically, the family nurse helps them decode the infant's language and signals. Because the father has a depressive disorder, he has added problems in decoding the infant's signals. With the aid of the NBO tool, the family nurse educates the couple in interpreting the child and decoding its signals. The family nurse reports that over the next few months the parents gain confidence in their parenting role. They no longer need residential respite care, and the Child Welfare Service is no longer involved.

In this case, the parents had several challenges. At the same time, they demonstrated great motivation

to be good parents for their child. Through the family nurse, they received the help they needed, on the scale and at the time they needed it. The family nurse reports that the NFP programme enabled her to form a closer relationship with the family than the Child Welfare Service and Maternity and Child Health Care Centre could achieve. The Centre's time was limited, and the Child Welfare Service had respite care as its main assistive intervention. The family nurse's opportunity to spend time with the family and offer support and education was the crucial factor in the family functioning so well today.

Case 2

The participant couple are young. The mother has some vulnerabilities, while the father suffered severe childhood neglect. The Child Welfare Service was involved early on in the pregnancy due to the father's prior history. In this case, the family nurse cooperates closely with the Child Welfare Service to ensure adequate service provision and to advise in the assessments made along the way. The family nurse also asserts that the parents have a troubled relationship. The father has problems with resolving problems and disagreements amicably, and behaves in a way that could have adverse consequences for the mother and child. The father has major problems with his own prior history, which affects his conduct and behaviour. It was clearly apparent to the family nurse and Child Welfare Service that this could have grave consequences for the child. Initially, the father was present at the visits by the family nurse, but eventually stayed away, and expressed dissatisfaction with the content of the nurse visits. The mother and family nurse, however, formed a close relationship. The family nurse stresses that she was focused throughout on a strengths and resources approach. She instructed the mother on infant needs, making it clear that a baby needs confident, loving and stable parents, who create predictability for the child. Gradually, the mother gains more confidence that she can be a good parent. But she also comes to understand that it will be difficult to give the baby what it needs if she stays in her relationship with the baby's father. Before the baby is born, she breaks out of the relationship to live on her own. Now that the father will no longer be living with the child, the Child Welfare Service no longer has any concerns. Although the mother has her own vulnerabilities, she shows great willingness to change, and to consider her baby's needs in a positive way, as demonstrated convincingly by her breaking off the relationship with the father of her child. According to the team leader, the child welfare service in the municipality in question made it clear that care proceedings would have been instigated if the mother and father of the child had stayed together.

The NFP team leader believes that this case demonstrates how the NFP programme works. The mother and family nurses have the opportunity to establish a close relationship. The family nurse becomes involved early on in the pregnancy, so that they have enough time to build up a trusting relationship. With this in place, the nurse focuses on the participant's strengths and resources, and on building the mother's self-confidence and understanding of what is best for the child. The NFP programme also makes the most of the window of opportunity represented by pregnancy in which women have the mental resilience to make radical changes in their life for the good of their unborn baby.

A common feature of these two cases is that the family nurse partnered with the family at an early stage. The attitudinal change work is based on a trusting and robust partnership between the family nurse and the family, in which the family nurse has supported the mother (Case 2) in making key changes in her own life, or has enabled the family to accept early assistance (Case 1), where the best interests of the child are the focus for the changes.

4.1 Summary

The family nurses were positive about working in the trial. They all completed the family-nurse training, and report that they had gained a satisfactory understanding of the programme. They rate the programme as very good, and as giving them excellent opportunities to provide close care delivery to vulnerable mothers. A great deal of time is spent on travel between home visits. The family nurses also report that they are short of time to prepare the home visit and complete the paperwork. Supporting participants in their interaction with the healthcare and welfare apparatus is a time-consuming task that may at times be done at the expense of another type of service by the family nurse. This begs the question as to whether the caseload assigned to the Norwegian family nurses was too heavy. At the same time, participating in the pilot itself is an additional demand in itself, such that it is too early to draw conclusions about nurse perceptions until the end. There was some churn in the teams. This is reported as not attributable to issues with the programme and pilot. New family nurses have been recruited.

Other municipal services rate the Norwegian Nurse-Family Partnership as an effective scheme. However, the Maternity and Child Health Care Centre and the Child Welfare Service report that it may be difficult to achieve systematic inter-agency cooperation on participants. To some extent this pertains to organisation of the Norwegian NFP on the part of the municipal services. The Maternity and Child Health Care Centre service in Stavanger also highlights that some overlap of services may occur in that the participants continue to be clients of municipal services to vulnerable families.

Although the Norwegian trial has no control group so that we are unable to draw definitive conclusions on impacts, the real-time evaluation identifies two cases in Rogaland as indicating that participation in the Norwegian NFP programme was instrumental in preventing care proceedings.

5 Inclusion of participants in the programme

Delimitation of the target group and inclusion criteria have been key questions to resolve over the course of the pilot. In the original NFP programme, there is the option of selecting inclusion criteria that are either numerous and specific or limited in number and broad. In the USA and England, they opted for limited in number and broad, because age and neighbourhood were sufficiently indicative of vulnerability for including participants in the programme. In Norway, however, it would be difficult to draw conclusions about vulnerability based on place of residence and age alone. For this reason, the Norwegian NFP pilot adopted numerous and broad inclusion criteria. The report from the Norwegian Center for Child Behavioral Development (NUBU) (Ogden et al. 2015) on the NFP pilot in Norway contains a discussion on the possible target group and inclusion criteria. Their proposed target group of women was characterised as: under age 25, pregnant with first child, high-risk childhood, low level of educational attainment and not in employment, weak finances, lacking social support, health problems and poor lifestyle choices. Women over 25 could be included, but subject to screening by a special panel. The report estimated that this target group constitutes 1 percent of first-time mothers per year. The pilot selected inclusion criteria in line with the recommendations, but opted not to set any age limit for inclusion.

5.1 Criteria for inclusion of participants

The Norwegian NFP pilot operates with a two-stage selection procedure for recruitment, based on the Dutch pilot (Mejdoubi et al., 2015). See Table 5.1 for an overview of the two stages. The family nurses reached out to health care providers (e.g. Maternity and Child Health Care Centres, GP surgeries) in their pilot site in the start-up phase to inform them about the programme (see also Interim Report 1). The initial stage is designed to be straightforward and to limit the time-commitment by healthcare professionals (Mejdoubi et al., 2015). This stage may therefore be regarded as a less-selective longlisting of vulnerable candidates for the programme. Unlike the Dutch pilot, the Norwegian pilot operates with no upper age limit, educational attainment threshold or language criteria in the initial stage. For this reason, the initial Norwegian selection stage was even more of a longlisting than the Dutch counterpart. In addition, the Oslo-site pilot operated for a period of time with no criteria for referring services, who were asked to refer all expectant mothers to the NFP pilot without addressing vulnerability factors.

The second stage is more time-consuming than the first stage. The family nurses conduct individual screening interviews of each potential enrolee, based on pre-defined inclusion criteria.

These inclusion criteria are almost identical to those in the Netherlands, with a few exceptions (for example, not including residential factors of concern). To be eligible for inclusion in the study, the expectant mother must meet one of the pre-defined inclusion criteria in the second stage. In addition to the inclusion criteria, selectors also took account of the family nurses' professional concern, and protective factors in the woman's social network (Mejdoubi et al., 2015). After the screening interview, the family nurse had the following options:

1. To include the woman in the NFP pilot
2. To exclude the woman from the NFP pilot (based on exclusion criteria, or the participant declining to be enrolled).

Table 5.1: Two-stage inclusion model for selection of enrolees for the Norwegian Nurse-Family Partnership Pilot

Stage 1 **GPs, midwives and other healthcare professionals refer potential candidates to the pilot if they meet the following criteria:**
1) Recruited by gestation week 28. 2) Willingness (mother interested in NFP) 3) First (planned carried-to-term) pregnancy 4) Residing within a NFP pilot site catchment area
Stage 2 **Family nurses include referred expectant mothers meeting at least one of the inclusion criteria below:**
1) History of violence/abuse in childhood or current relationship 2) At-risk in own childhood/youth (neglect, prior history with child welfare service) 3) Limited social support/serious conflicts between parents-to-be 4) Mental health problems 5) Not in education, employment or training, and/or low level of educational attainment **Additional eligibility factors for inclusion:** - Long-term low income and challenging financial situation - Lone provider reliant on welfare benefits **+ professionally informed concern** about the pregnancy or imminent parenthood, based on factors such as history of violence/abuse in childhood/youth or current relationship; history of welfare service intervention in own childhood/youth; lack of supportive network/family/relationship with child's biological father and/or partner.
Exclusion criteria:
- Planning to move out of NFP pilot site for more than three months - At risk of losing custody of child/intention to give child up for adoption

5.2 Referrals and screening

5.2.1 Qualitative overview of referrals and screenings

The Rogaland site reported receiving a steady stream of referrals almost throughout the pilot period from both midwives and the District Psychiatric Outpatient Centre. They report that the referrals were highly eligible, and that the referrers were well-informed about the programme. The participants referred to the programme had already been familiarised with the programme, were motivated to be enrolled and were aware that they might need the additional support it offers. Many of those referred are enrolled at an early stage of pregnancy; including some who are only a few weeks along. For these,

there is plenty of time to screen and start up the participant. The Rogaland-site team leader describes that they gradually gained confidence with the screening interview and inclusion criteria, and that they are increasingly less uncertain about the women they include.

Table 5.2: Referrals to the Rogaland team

How the referral was made to the programme	Sandnes	Stavanger	Time
Midwife	17	30	18
GP	3	10	
Child Welfare Service	3	4	3
District Psychiatric Outpatient' Centre	3	9	
Woman herself	8	13	
Substance misuse prevention service	6		1
Amathea Foundation		6	
Gyn. Outpatients'		3	
Nurse Youth Counselling		2	
NAV - Labour and Welfare Admin.	1	4	
Police			
Alternative to Violence (ATV) treatment centre		1	
Total	**41**	**82**	**22**

In the start-up phase, the Oslo site received very few referrals from the Maternity and Child Health Care Centres. The Oslo team reported that the midwives thought it was challenging to have to screen all primiparae for the programme on top of all the other tasks they had to perform. In order to boost the number of referrals, the team leader and Head of NFP Norway decided that for all primiparae presenting at a Maternity and Child Health Care Centre prior to gestation week 28, midwives were to refer them to a screening interview, meaning that for a brief period the two-stage inclusion model was dispensed with.

Table 5.3: Referrals to the Oslo team

How the referral was made to the programme	Søndre Nordstrand district	Gamle Oslo district
Midwife	38	115
GP	14	5
Ullevål/Akershus hospital team for substance dependency in pregnancy		1
Child Welfare Service	2	1
District Psychiatric Outpatient' Centre	1	4
Woman herself	3	12
School Health Service	2	
NAV - Labour and Welfare Admin.	5	3
Police	1	
Total	**66**	**140**

In the next stage, the Oslo team would then use the screening interviews to identify who was eligible for inclusion in the programme. This generated a larger number of referrals, but also resulted in a great deal of time spent on screening interviews with primiparae who proved ineligible for inclusion. Gradually, the midwives amassed more insight and experience surrounding referrals and the target group and the decision was made to stop referring all women. The Oslo team report that there are increasingly more and more eligible referrals from the Maternity and Child Health Care Centres, and believes this is by virtue of their efforts invested in building good inter-agency relations.

The team is no longer actively involved in recruitment, and, according to the team leader, receives one or two referrals per week. The team believe this number and rate of influx is manageable. They report that many referrals are made late in pregnancy, verging on week 26. This means that they are short of time for conducting the screening interview and getting the family-nurse partnership visits under way, which makes the start-up phase hectic. It also leaves less time for prenatal visitation, and for behavioural change counselling and relationship building in this phase. The NFP programme requires 60 percent of participants to be enrolled before gestation week 16 and for all participants to be enrolled by week 28. This has been very difficult to achieve in Oslo.

What caused the late referrals? Within the antenatal care service in Oslo, appointments at the Maternity and Child Health Care Centres are often too late for eligible first-time mothers to be included in the programme. A great many women consult their GP at 12 weeks' gestation to have their pregnancy confirmed. This first appointment deals with many practical elements such as blood tests, screening and the application for a place of delivery. This is followed by ultrasound scanning at the hospital once between week 18 and 22, with the next appointment at the Maternity and Child Health Care Centre in week 24. This is often the midwife's first contact with a mother-to-be, and her first opportunity to assess whether she should be recommended for the NFP programme. In Oslo, many women receive most of their antenatal care from their GP, whereas in Rogaland most of them receive this from a midwife at their local Maternity and Child Health Care Centre. This means that contact with the women is made earlier and that they can be included in the programme at an earlier point in the pregnancy. According to the team leaders, the fact that the number of women pregnant with their first child who consult a midwife (at a Maternity and Child Health Care Centre), as opposed to a GP, is so much higher at the Rogaland site relative to the Oslo site helps to account for why referrals were more numerous and more precise at the Rogaland site.

5.2.2 Quantitative overview of referrals and inclusion

Based on the inclusion criteria, 178 referrals were made by May 2018. The figure varies from that presented in Section 5.2.1 because the numbers were recorded in September 2018. A total of 61 participants had been recruited in Oslo, and 72 participants in Rogaland (n=133) by mid-May 2018. See Table 5.4. Of the referred participants, a total 82% met the inclusion criteria, and 16% did not meet the criteria. For a small proportion of participants (2%) could not be contacted by the family nurses for a screening interview. Slightly more participants met the criteria at the Rogaland site than at the Oslo site. This may be because Oslo initially referred all pregnant women directly to the family nurse, without the referring agency performing any preliminary screening of mothers-to-be.

A total of 83% of those who met the inclusion criteria, were enrolled in Rogaland, and 85% of those who met the inclusion criteria were enrolled in Oslo. The majority (88%) of the participants who met the inclusion criteria were enrolled in the programme – which is within the NFP *stretch* objective for 75% of all those who meet the criteria to be enrolled in the programme (see Appendix 2).

Table 5.4: Referral, enrolment and non-enrolment in Oslo and Rogaland

Status	Oslo Team		Rogaland Team,		Total	
	n	%	n	%	n	%
Referral status of enrolled and non-enrolled participants						
Meet the criteria	63	77%	83	86%	146	82%
Do not meet the criteria	19	23%	10	10%	29	16%
Address unknown/no contact made	0	0%	3	3%	3	2%
Total	82	100%	96	100%	178	100%
Enrolled participants						
Enrolled, meeting the criteria	60	98%	69	96%	129	97%
Enrolled, not meeting the criteria	1*	2%	3*	4%	4*	3%
Total participants enrolled	61	100%	72	100%	133	100%
Non-enrolled participants						
Meet the criteria - decline to participate	3	14%	14	67%	17	40%
Enrolled in another programme	0	0%	0	0%	0	0%
Language barrier	0	0%	0	0%	0	0%
Do not meet the criteria	18	86%	7	33%	25	60%
Total non-enrolled participants	21	100%	21	100%	42	200%

Note: *Some of these participants who do not meet the criteria, were nevertheless enrolled due to errors in the forms.

This is also fairly similar to previous pilots (for example, 87% in the English pilot; Birkbeck, University of London, 2012). All of the women enrolled were pregnant with their first child, which is the second *stretch* criterion. 60% of the expectant mothers must be enrolled by gestation week 16. There were two reasons for participants not being enrolled in the programme. Some participants declined to be enrolled even though they met the inclusion criteria (n=17) while other participants did not meet the inclusion criteria (n=25). In addition, were three expectant women of unknown abode. In total, four of those who attended referral interviews were not included in the trial (45/178). Of participants who met the criteria for inclusion (n=146), 11% (n=17) declined to be enrolled in the programme. Of those who did not meet the inclusion criteria, none were not enrolled due to a competing programme or a language barrier.

The majority (60%) of non-enrolments were due to ineligibility; i.e. not meeting the criteria. There was a slight difference between the two pilot sites. In Rogaland, more women (n=14) opted out of enrolment than in Oslo (n=3) in spite of meeting the criteria for enrolment. Several different entities referred the expectant mothers to the NFP programme. See Figure 5.1. More than half of the families were referred by a midwife, 9% by a doctor and in 11% of cases, the woman was self-referring. In both Oslo and Rogaland the midwife made the majority of the referrals. Rogaland showed a greater spread in the type of referring entity compared with Oslo. At the Rogaland site, more families were referred to the programme by the district psychiatric outpatient centre, child welfare service and substance use prevention service, as compared with Oslo. Rogaland also had more self-referrals. In Rogaland, a small proportion of women (6%) were recruited via the Amathea Foundation, which offers free counselling to women and couples coping with unplanned pregnancy.

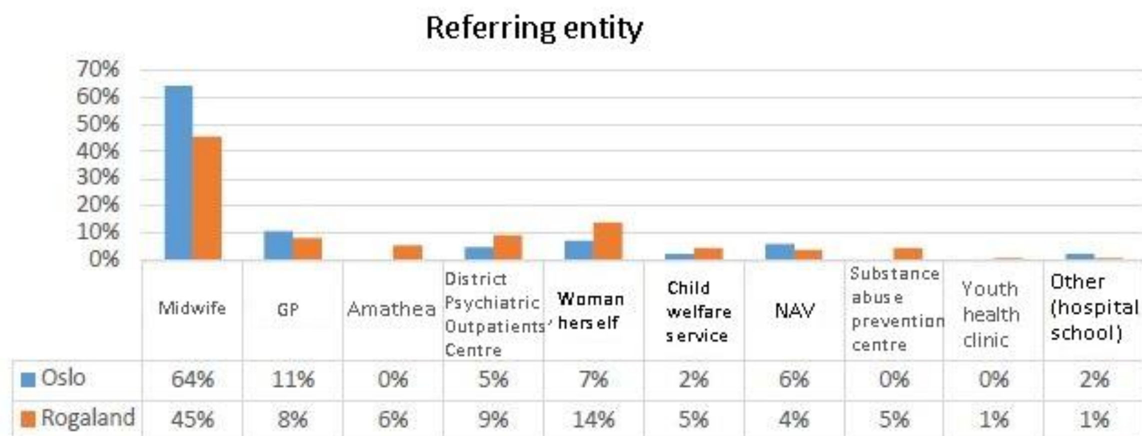


Figure 5.1: Referring entities in Oslo and Rogaland

4.1.1.1 Overview of included participants as at August 2018

In the first Work Research Institute real-time evaluation report, we described participant recruitment and inclusion at length, including that the recruitment had proceeded more slowly than planned. At the Rogaland site, recruitment was relatively steady, whereas in Oslo, only a limited number were recruited in the first few months of the project. The recruitment was scheduled to be concluded by 1 August 2017, but this was extended to 31 December 2017. When the national NFP office realised that the project was far from achieving full recruitment by the end of the year, it dispensed with the deadline. So far, it would appear that the recruitment of 150 participants will take approximately 12 months longer than planned, meaning that it will not be concluded until autumn 2018 instead of autumn 2017.

Table 5.5: Participants included, Rogaland site, as at August 2018

Included in the programme	**80**	**Active in the programme**	**63**
Sandnes	26		22
Stavanger	42		31
Time	12		10

The quantitative data in this report were obtained in May 2018. From the team leaders, we received updated figures for the number of included participants, active participants in the programme and the number of participants undergoing screening in August 2018 (see also Tables 1 and 2 in Section 5.2.1). These are presented in tables 5.5-5.8 below.

Table 5.6: Screening/wait-listed, Rogaland site, as at August 2018

Undergoing screening	**3**	**Rejected due to capacity**	**17**	**Wait-listed due to capacity**	**0**
Sandnes			5		
Stavanger	3		12		
Time					

Table 5.7: Included, Oslo, as at August 2018

Included in the programme	69	Active in the programme	55
Søndre Nordstrand district	24		17
Gamle Oslo district	45		38

Table 5.8 Screening/wait-listed, Oslo as at August 2018

Undergoing screening	1	Rejected due to capacity	3	Wait-listed due to capacity	0
Søndre Nordstrand district			2		
Gamle Oslo district	1		1		

4.1.1.2 Conduct of home visits

See Figure 5.2 for number of NFP home visits in Oslo and Rogaland in the programme's prenatal phase. The horizontal x-axis represents the number of home visits by a family nurse, while the vertical y axis represents the number of families. See Appendix 3 for a more detailed tabling of home visits.

From the start of the programme until May 2018, the programme recruited 133 families: 61 families in Oslo and 72 in Rogaland. Of these, 126 families had one prenatal visit by a family nurse. The family nurses conducted a total of 1,040 home visits (48% in Oslo; 52% in Rogaland). Around 85-100% of these families received 1-5 visits. One third has so far only received 10 home visits. Less than one fifth of the families received 11 or more home visits. At the time of data extraction for the present Interim Report, a number of families had not received a home visit from a family nurse. Of all the attempted home visits with completed records for home visits in the period (n=1,040), 89-90% were completed visits, 1% attempted visits and 10-9% cancelled visits in Oslo and Rogaland.

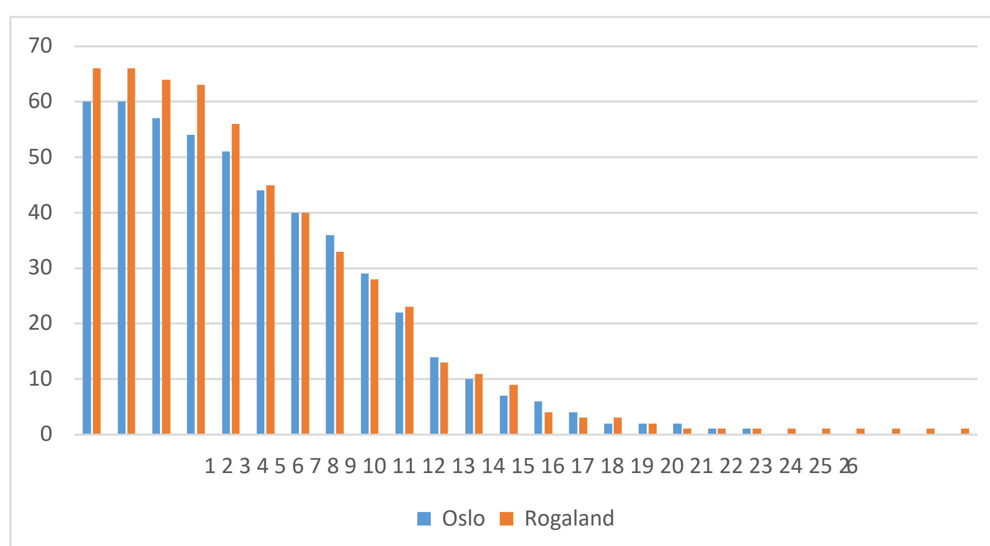


Figure 5.2: Number of prenatal home visits by family nurse per family in Oslo and Rogaland

Of the cancelled visits (n=98), the majority were cancelled by the participant (n=90) and a small fraction was cancelled by the family nurse (n=8). The average duration in minutes of completed home visits lasting more than five minutes (for the first five visits) was 87 (SD:12.7) minutes in Oslo and 88.8 (SD:14.3) minutes in Rogaland. The duration of the first five visits was 30-180 minutes. Because many participants have not yet given birth at this stage, comparison with other countries is difficult as regards anticipated number of prenatal visits and other metrics. A more thorough analysis and comparison with the goals and outcomes of other pilot countries will be undertaken in the final report.

5.3 Inclusion process

Here we examine processes and findings in the family nurses' inclusion process with reference to qualitative data. What does the inclusion process reveal? What is not revealed? NFP is a trial in which surveying the target group was a key component, and where it was unclear how many potential participants there would be for the programme, and who were eligible for inclusion. After referral to the programme, a screening process is undertaken in which likely candidates for enrolment are interviewed and their vulnerability factors determined. In a trial, this process is not only a screening to determine whether a specific pregnant woman (primipara) is eligible for the NFP programme, but a process to explore universal eligibility for inclusion in the NFP target group.

> *"People differ, and pregnant women also differ, meaning that sometimes we get a lot of information from the referrer to tell us about the woman's background, history and challenges. This gives us a 'backdrop' for the initial meeting and screening interview. But in other cases, we may only have a few key words to go by. And in the screening interview, we also sometimes receive a lot of information, which makes us confident that 'yes, you're on target for us'. And then other times, we see someone where we think 'no, you can make use of other services' or 'the problems here are not so severe'. Naturally, we also screened some, where we ended up redirecting them to other services".* NFP team leader Rogaland site

The NFP teams and boards have a tendency to use the terms "heavy" and "light" in reference to the participants and their vulnerability factors. A participant assessed as being "light" has too few/insubstantial vulnerability factors and has too many personal resources for the programme to make a big difference. The participant is presumed able to access other services of her own accord and is not in need of the close, long-term programme delivery offered by NFP. Conversely, a participant who is too "heavy" has severe vulnerability factors, where it is uncertain whether NFP will be a sufficiently radical intervention, and where the family nurses will be hard pressed to provide adequate care delivery to the client. A participant who is too "heavy" will require more frequent and more intensive care delivery than NFP has the capacity to provide.

> "*It would also have been difficult to assess if someone was too light from the screening interview alone. Take for example a woman who just moved to the neighbourhood, has only a limited social network, which we know is a vulnerability factor, was raised in another culture, has a history of violence and abuse in her childhood, and then was keen to join the programme because she wants to do things differently for their own child. But then as time goes on you realise that her reflection and resourcefulness mean that she would have done well regardless,*

because she was so reflective about everything from the outset. The problem is that you can't judge that from a screening interview when she met some of the inclusion criteria. So, I'm not sure we actually managed to filter out these types of women right from that early stage". Team leader, Rogaland site

"I was very unsure about one of my first candidates, but we included her because she had quite a few vulnerability factors, including a history of mental illness, but other than that, she was educated, in a stable relationship, a home owner and was generally well set up to have a baby. But we included her because she had a history of mental illness. And it turned out that she was one of those with the greatest need". Family nurse

The teams apparently see it as obvious that the target group will comprise both heavy and light cases – not all of those who need NFP will have equally severe problems, and women do not have to be among the heaviest cases to benefit from the programme. Care delivery to clients with comprehensive, complex problems may be challenging, but these are the individuals who stand to benefit from NFP in addition to other services. In a caseload of 17-18 participants, not all participants are likely to face equally demanding challenges, and variation is likely among the participants in terms of the types of challenges faced, and the type of service they receive in the programme.

Some of those enrolled in the programme turned out to be more resourceful than could be elicited from the screening interview. It was found that they have the self-efficacy for accessing ordinary care and welfare services, and for seeking help with their challenges of their own accord. Conversely, the teams stress that many of those assessed as being too resourceful to benefit from NFP subsequently proved to have major challenges that were not clearly apparent from the screening interview. Vulnerability factors and challenges may be difficult to expose in a screening interview, and complex challenges may be more gradually emergent as the family nurse and participant become more closely acquainted. This compounds the complexities of the inclusion process. Equally, both teams and team leaders state that over the course of the pilot, they gained a better understanding of who merited inclusion. Initially, the teams were more uncertain about the participants they included, but gradually they gained more insight into who stood to benefit from being enrolled in the programme.

The Oslo-site team leader believes that all of those enrolled were subject to a certain degree of vulnerability, but acknowledges that some of those included over the first 10 months were off-target. This is attributable firstly to the fact that the start-up phase was a period of exploring who was suitable for inclusion, and who was too "heavy" or too "light" for inclusion. Secondly, it is accounted for by the fact that recruitment was slow to take off in the pilot's first year, and that the need to include a minimum number of participants by the 1 August 2017 deadline resulted in the inclusion of some participants in this period who may not have had sufficient need for NFP and could have relied on the standard services. After the original 1 August 2017 deadline was extended, the pilot was no longer working to a deadline for enrolling 150 participants. This eliminated the challenges of including participants that might not stand to gain sufficient benefit from the programme. Another factor for recruitment of a suitable target group concerns better communication with the referring entities. Over the pilot period, the team leaders found that the referrals received became increasingly more eligible.

"*We're seeing more and more suitable families referred to the project. Initially, we were perhaps a bit eager to get started, but what I'm seeing now is that the women referred to us are better aligned with the target group, and have more complex situations"*. NFP - Team leader Oslo

Too heavy, too light? Did the teams enrol anyone who was too light? No, because what they are finding is that those who were enrolled with some doubt as to whether they were too light, later turned out to have major challenges, for which NFP has made a big difference. The problem of inclusion of overly "heavy" or "light" participants is addressed by stakeholders other than the NFP teams. The interviews with NFP board representatives, reveal that the question of "heavy" and "light" participants was a key topic of discussion in the adjacent services and board meetings. Some were concerned that the family nurses are enrolling overly heavy participants, in the sense of families who need more comprehensive services, and for whom participation in the NFP intervention would render other service entities passive. For example, that the Child Welfare Service would regard a participant in the programme as already receiving adequate level of service, and would not intervene as incisively. An overweight of "heavy" participants might also result in too heavy a workload for the family nurses. The majority of NFP board representatives were, however, concerned that the programme would enrol participants who are too "light", and would end up devoting disproportionate service intensity to families with less pressing needs. For many families in rural municipalities/urban districts, NFP is a beneficial service because one family nurse is able to provide an intensive service to a relatively large number of participants over a given period. If the participants do not need this type of service, the economic cost of the programme will be very substantial.

> "*I think we've all had the worry that when [potential participants were excluded] it might be because they were too 'demanding'. But in actual fact, the result throughout was that they were too light. While that came as a relief to all of us, we don't want to be shooting sparrows with cannons"*. NFP Board Chair, Rogaland site

Many of the concerns surrounding participant inclusion are that the NFP intervention is longer term. There is no option of giving participants an 'NFP light' version; participation entails a fixed number of visits over an 18-month period, and little real-time evaluation is made of when a participant might have received 'enough' care, as would be the case in other interventions. Although the participant is obviously free to withdraw from the programme, inclusion is still a major commitment, and decisions must be on-target, based only on a screening interview. The inclusion process is therefore crucial in ensuring that the NFP intervention is delivered to the right target group.

In a trial, there is the risk of targeting the intervention too narrowly and too widely. In the start-up phase, it will be especially difficult to recruit participants before potential candidates and other agencies are fully aware of the intervention programme. The English pilot, for example, found it difficult to recruit participants, but did manage to retain the majority of them once they had been enrolled (Ogden et al. 2015). For this reason, it will often be pragmatic to target broad recruitment in this period. The fact that the pilot started out with a broad-based approach at start-up is thus not necessarily problematic, nor is it an unknown problem. Instead, it necessitates consolidation of experiences gained from the project, and their application in determining who constitutes the target group.

5.4 Inclusion criteria/vulnerability factors among the participants

The enrolled participants have several risk factors making them and their future baby vulnerable. In the quantitative data, more than half of the enrolees report challenges in their own childhood and

youth, and mental problems (see Figure 5.3). The Rogaland site had a slightly higher proportion (42%) who were not in employment, training or education relative to Oslo (26%), while the Oslo site had a slightly higher proportion (48%) reporting limited social support/high conflict than in Rogaland (31%). See also Appendix 1 for a detailed distribution of inclusion criteria for the Oslo and Rogaland sites.

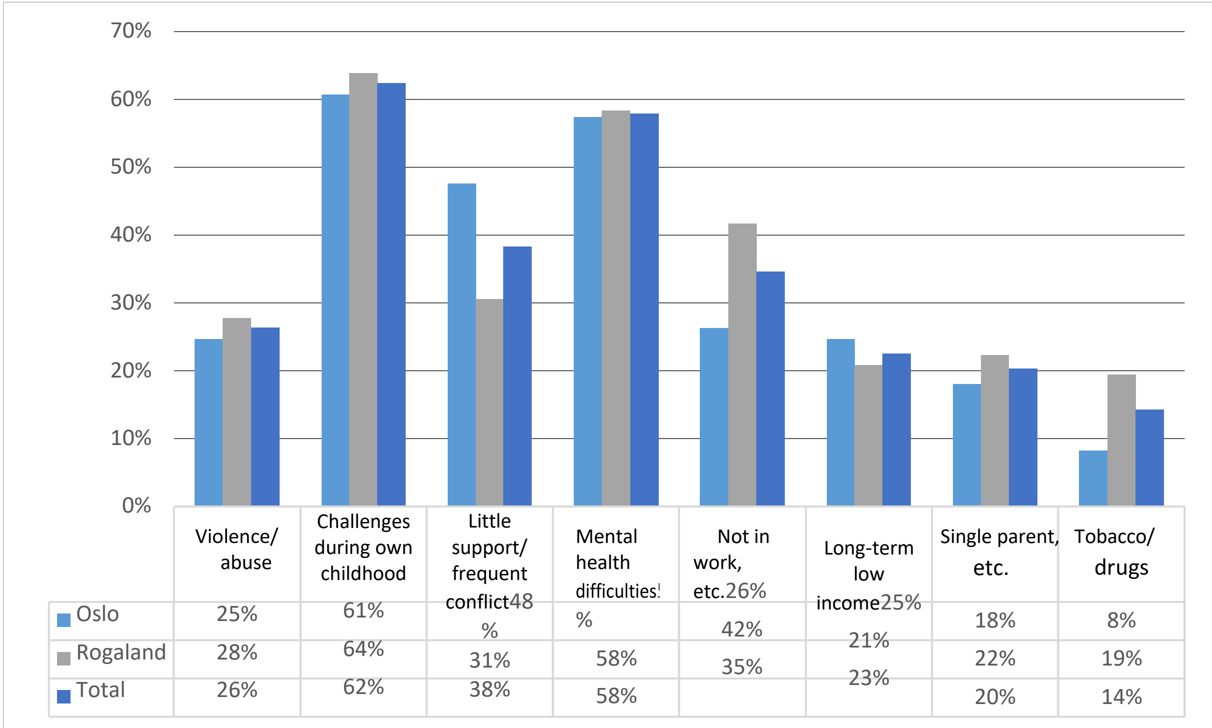


Figure 2.3: Distribution of inclusion criteria/vulnerability factors among enrolled participants in Oslo (n = 61) and Rogaland (n = 72)

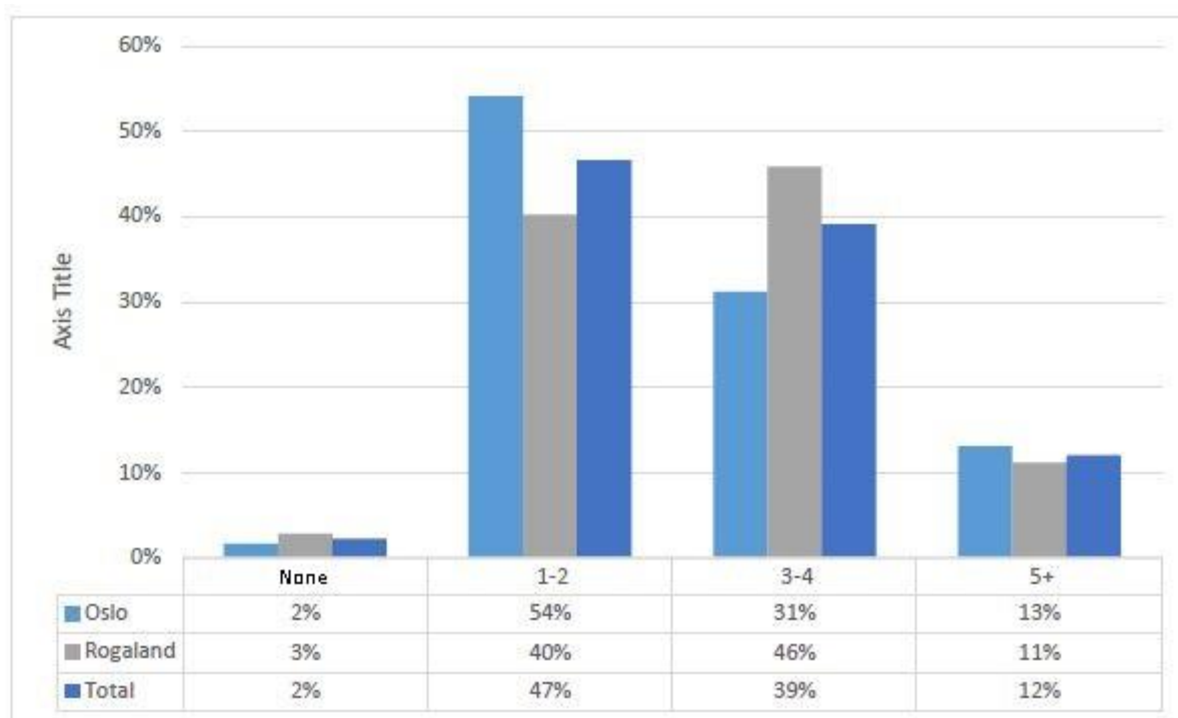
See Figure 5.4 for the distribution of the number of vulnerability factors identified in participants. The mean (standard deviation) of the number of vulnerability factors per family was 2.67 (1.70) in Oslo, and 2.85 (1.38) in Rogaland, and 2.77 (1.53) for the entire sample. A substantial number of participants experienced multiple concurrent vulnerability factors.

Previous NFP pilots employed an evidence-based vulnerability index based on eight characteristics identified as risk factors predicting poor child outcomes (Barnes et al., 2010; Birkbeck et al., 2012). These characteristics were:

- No partner
- Not living with mother
- Very low income
- Smoked in previous 48 hours
- Not completed higher education
- History of abuse
- Currently homeless
- Receiving mental health services

In the Norwegian pilot, all of these characteristics were measured except for one ('currently homeless). Although it is difficult to make direct comparisons (due to different ways of measuring these factors, and some variance in the selected vulnerability factors) it would appear that the Norwegian

participants are less vulnerable than in the English pilot. The Norwegian included participants also appear to have fewer risk factors than in the Dutch pilot with respect to these risk factors (Mejdoubi et al., 2015). It would appear that the Norwegian participants are less vulnerable than in the English and Dutch pilots. Some of this is attributable to the fact that the Norwegian welfare system prevents the scale of welfare deprivation that occurs in the US and England.



	None	1-2	3-4	5+
Oslo	2%	54%	31%	13%
Rogaland	3%	40%	46%	11%
Total	2%	47%	39%	12%

Figure 5.4: Number of risk factors among enrolled participants in Oslo (n=61) and Rogaland (n=72)

Norway has a highly educated population, high age of first-time maternity, and a relatively high standard in its social and welfare services. Local and national service provision is comprehensive, and the Child Welfare Service's threshold for taking children into care is much lower than in the USA and England. The group with the greatest parenting challenges is therefore not eligible for inclusion in Norway because it comes under the child welfare service's domain. Because the Norwegian NFP does not operate with an age limit, the result is enrolment of a higher number of participants who are adult/mature first-time parents with resources such as paid income and education, as opposed to the majority enrolled in other national pilots. In the Norwegian, NFP, there are also only a small number of participants who are drug or alcohol dependent or who smoke. However, these participants will still face vulnerabilities in terms of parenting, attachment, relationships and social network, mental health etc.

5.5 Description of included participants

5.5.1 Characteristics of included participants based on the qualitative interviews

Based on the inclusion criteria, we asked what characterises the participants included in the programme? And what are the challenges they need help to overcome? Our interviews of the NFP

teams and team leaders indicate that they find it difficult to create categories of who constitute the target group, and a typical participant in the programme. The family nurses assert that categorisations can be stigmatising and inappropriate, and that the picture of each participant is complex, and difficult to categorise. At the same time, it is important for the evaluation and any continuation of the programme that the vulnerability factors that the participants bring with them into the programme and who has been included in the pilot are mapped out. During the interviews, the teams talked about the participants, the challenges that they face and how they work with the participants in order to bring about change. We then attempted to systematise and set them up as an overview.

- Many of the participants face *mental health challenges* which range from anxiety and depression to personality disorders and a long history of psychiatric problems.
- Many participants have had *negative experiences of the support system*, particularly the Child Welfare Service and do not trust representatives of the public sector, and may find it difficult to accept assistance.
- Many participants face *challenges in interacting* with their child, bonding with them, interpreting signals and understanding the child's needs.
- Many of the participants *lack emotional, social and practical support*, with few close friends, a limited network and parents who are unable to help.
- Many of the participants had a *difficult childhood*
- Some participants are in *unstable cohabiting relationships* with frequent conflict, alcohol/drug use and violence.
- Some participants lack knowledge of the body, contraception, pregnancy and childcare.
- Some participants have *little structure* in their lives and have no home, income or employment.
- Some participants *are unaware of the services that are available* and their rights and options, e.g. through Maternity and Child Health Care Centres, pre-schools, leave arrangements, the Norwegian Labour and Welfare Administration (NAV), the Child Welfare Service, children's and young people's psychiatric out-patient clinics (BUP) and mental health professionals.

It is apparent that the descriptions are largely consistent with the criteria of the inclusion model. At the same time, they also provide an insight into the variation and nature of these problems. The numbering of the challenges faced by the group does not reflect any ranking of the various types of vulnerability amongst the participants to any significant extent. However, the order reflects what the teams placed greatest emphasis on during the interviews, and the types of vulnerability that they encounter most often amongst the participants.

1. *Mental health challenges*

The family nurses describe participants who may be facing major challenges with their own mental health, which can impact on most aspects of everyday life and relationships. The challenges vary, from periods of anxiety and depression to personality disorders and a long history of psychiatric problems. The family nurses are not carers, and the participants usually have a psychologist or psychiatrist assigned to them; if they do not, the family nurses will refer the participant for treatment. However, mental illness often brings with it a number of problems in everyday life, relationships and parenthood,

which the family nurses help the participants deal with. For example, couples who have little time or energy left over to deal with their emotions and their expectations of their partner may experience frequent conflict and misunderstandings in their lives. The participants may also suffer from anxiety linked to their impending parental role, which the family nurses can help them to overcome. The family nurses explain that mental problems can cause the participants to lead a chaotic everyday life, where the absence of regularity regarding sleep, nourishment and socialisation before the arrival of their child gives them a poor starting point for meeting the baby's needs after the birth.

"I would say that mental health is a big part of the picture, that they suffer from a mental disorder or face a mental challenge. And that is after all not what we are concerned with, because they may be seeing a psychologist or psychiatrist. However, mental illness is often accompanied by a number of other things. These may include anxiety over the phase of their life that they are now entering; this can impact on the relationship between the partners. So, although we do not help directly with the mental health issue, we can contribute a lot of support and assistance to help the person cope with the issue, regardless of whether it is the father or work or the baby". Family nurse

2. Lack of bonding with own parents/interaction with the baby

Many participants do not have good role models in their own parents to guide them in their own parenting role. The parents may face major challenges in interacting with the baby, bonding with the baby, interpreting signals and understanding the baby's needs. A lack of confidence that they will make good parents makes them vulnerable and in considerable need of support and guidance.

"Interaction is of course the most important thing I work with anyway. Getting them to discover the baby. Interaction begins during pregnancy, bonding with the baby, preparing mentally for the arrival of the baby. And then listening to see what the baby needs, understanding the baby, and establishing a strong and secure bond. And trying to help, because many of my participants have mental health issues, drug/alcohol problems and eating disorders. And the disruption, you can first talk about it and then calm the situation down, so that you sort of switch the focus onto the interaction and the baby". Family nurse

"They want to become a better mother than they had themselves, to give the baby the kind of security that they never had themselves. When we visit them at home again and again over such a long period of time, you build up a strong relationship, they can talk about things which are really very fragile and difficult". Family nurse

3. Difficult youth/childhood

Participants may have had a difficult childhood/youth and may have suffered neglect. Some were raised in foster homes or institutions. They have little first-hand experience of how to be a good parent and how to give their own children a safe and contented childhood. Many of their other challenges stem from a troubled childhood/youth.

"I have a group where almost everyone has suffered abuse in one way or another during their childhood. And I've spent a lot of time on that; 'What was your childhood like?', 'What will I take with me?', 'What will I not take with me?' And then we can talk about it, what have they not experienced themselves?" Family nurse

"Many of the diagnoses I think stem from what they experienced during their childhood. It gradually emerges more and more, it is clear, everyone has something which can be traced back to their

childhood. Many did not have good role models in their formative years. They have either lived in a foster home or they have suffered neglect, so they do not know what being a good parent entails. 'What is my role as a mother?' 'How can I be a good mother?' This is also something we talk about a lot if they do not have any references". Family nurse

4. *Lack of emotional, social and practical support*

Many of the participants have few close friends and a limited network. Many also have limited resources in their network, and they cannot lean on the support of those closest to them. There are various reasons for the lack of relationships. Some participants have recently come to Norway in a family-reunification arrangement, and have a limited network and few contacts other than their partner and in-laws. Other participants may have had a childhood which makes it difficult for them to form close relationships; they may have a history of drug/alcohol use and a background in a high-risk neighbourhood, or they are experiencing mental issues, which mean that they face challenges forming and maintaining positive relationships.

> *"They may have little experience of ending up in a conflict and then repairing it afterwards. Some have many failed friendships and relationships behind them. Which do not last, few long relationships".* Family nurse

> *"There are girls with more serious issues, with a history of drug/alcohol use, a lot of child welfare institutions, disruptive conduct, where they have no ethnic Norwegian background, or a bit of everything. And a group of immigrants who have a limited network, with no one around them to support them".* NFP Team Leader

> *"We become important; some have almost no network whatsoever. We have something called 'my support', where the participants can draw out [their network], then suddenly you end up in the innermost circle, in relation to how important you are. I think that is quite a strength, that we are becoming so important to many of these women who have few people who can offer them good support".* Family nurse

5. *Lack of parental support*

Many participants have limited or no options for support from their own parents, whether it is because their parents have passed away or do not live in the same country, are no longer in touch or because the parents themselves have limited resources. A lack of parental resources means that participants have few people who they can turn to for advice and practical help, and that they are have no-one to draw on as their main source of support when they become parents for the first time.

"I have participants whose parental support has been lost or is completely absent, i.e. they are not necessarily dead, but I often have some who have no parents. Whose parents are dead, or who came to Norway as a lone child asylum-seeker". Family nurse

6. *Lack of knowledge of the body, pregnancy and childcare*

Some participants lack basic knowledge of how a pregnancy develops and need guidance concerning diet, etc. They also need information concerning how the baby develops in the womb and how to care for and look after the baby after it is born. Some also lack knowledge of contraception and how it works.

"Many of them have no knowledge of the body and do not fully understand what is happening, 'Can I talk to the baby in the womb?'". Family nurse

7. Problems with relationships, drug/alcohol abuse and violence

Participants with a partner can often be involved in conflicts. The couple may face challenges communicating and need help to understand each other and the challenges that they are facing. Many couples have not been together for very long and have little stability in their relationship. Some couples have ended their relationship and often argue, and this can become a burden for the woman during her pregnancy and subsequent childbirth. Some participants also have a partner who is facing major challenges relating to mental health, a child protection background, drug/alcohol use and crime.

> *"There are frequent crises and a big burden on the couple; I think there are many discussions about the partner, whether he is there or not there. Should he live there or not live there, should they separate or not separate, should he be there at the birth, should he not be there. The situation can change rapidly for those who lead a slightly chaotic life".* NFP - Team leader Oslo

8. Lack of structure

Some participants have little structure in their lives, e.g. they may have no home, income or employment. The family nurses describe participants who live in chaos, with disorder, unpaid bills and no permanent home. For these individuals, it is important to create structure, so that they are able to care for the baby appropriately. Some have no understanding of what a baby needs and what kind of adjustments they will have to make.

Some of this is also about helping participants to think about the future, to set goals and to dream and learn to plan.

> *"I'm very concerned about some parents and for the future of their unborn baby and how the interaction will work out. As for some of the others, I think "I'm not worried about you at all, but you don't have anywhere to live".* Team Oslo

> *"The fact that you are used to sweeping things under the carpet and that you are not aware of things that you must sort out. Difficulties creating structure in their own lives, and it is not an issue when there are no children around, then it may be possible to sort things out. But when the baby arrives, it can be a good idea to decide whether or not you want to be with your partner, where you will live, where you will get enough money to live on, which documents you will need to fill in".* Team Leader Oslo

9. Lack of awareness of services

Some participants are unaware of services that are available to them, e.g. Maternity and Child Health Care Centres, open preschools, leave arrangements, the Norwegian Labour and Welfare Administration (NAV), the child welfare service, children's and young people's psychiatric out-patient clinics (BUP) and mental health professionals.

They don't know what they are entitled to or how to access services. Others have difficulty communicating their needs and requirements adequately, so that the services understand what the family really needs. Participants may have difficulty filling in forms from the job centre/benefits office or understanding the procedures for preschool admissions.

10. Negative experiences of the welfare system

Many participants have experiences of the welfare system, particularly the Child Welfare Service, which makes it difficult for them to accept help and trust representatives of the public sector. They have experience of being stigmatised and have experienced a lack of support and a lot of adversity.

They are very sceptical about receiving support from the Child Welfare Service and about accepting advice from midwives and health visitors at the Maternity and Child Health Care Centre.

> *"Many of the participants believe that their past has been used against them. That people do not believe in them, because they have had such an unstable or difficult past, a difficult childhood. They drank and did drugs, were in and out of a psychiatric institution, so there is no one who believes that they can do it. And that I think is the difference with what we do, because we work in a resource-oriented way, we work on the basis that we actually believe what they say and try to support them in that".* Family nurse

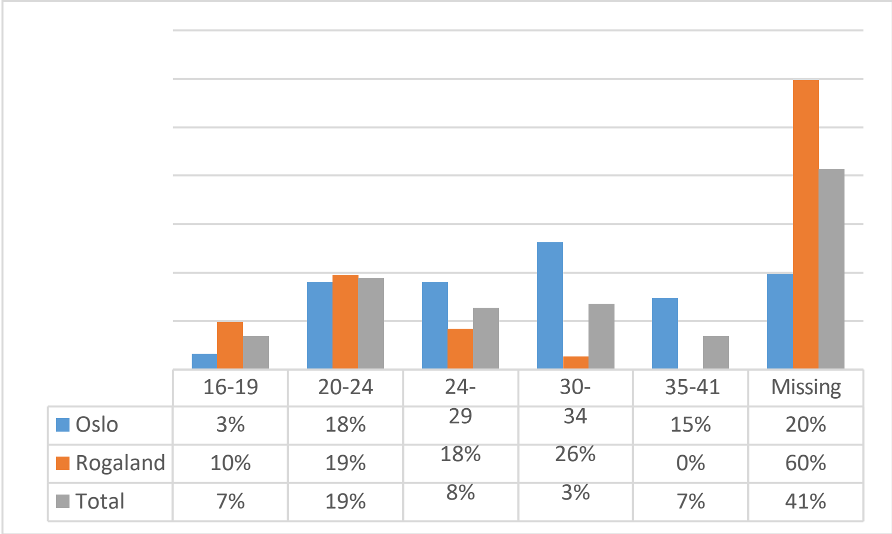
5.5.2 Characteristics of the participants included based on the quantitative data

The family nurse fills in a mapping form (form "KS") during the first home visit with the participants. The following sections provide information on the 133 participants who were included as at May 2018, based on information from the referral and mapping forms.

1. *Age*

The age of the enrolled participants ranged from 16 to 41 years, with a mean of 28.98 (SD = 7.67) in Oslo, and 21.74 (SD = 5.21) in Rogaland. See Figure 5.5. There are more younger participants in Rogaland and more older participants in Oslo. The age differences are substantial and statistically significant ($t = 6.45$; $p < 0.0001$). Unfortunately, very little information was available concerning age; there is no information concerning age for 60% of the participants in Rogaland, so it is uncertain whether the distribution shown here is accurate.

The qualitative interviews with the NFP teams also led to the same conclusion – that the participants are younger in Rogaland.



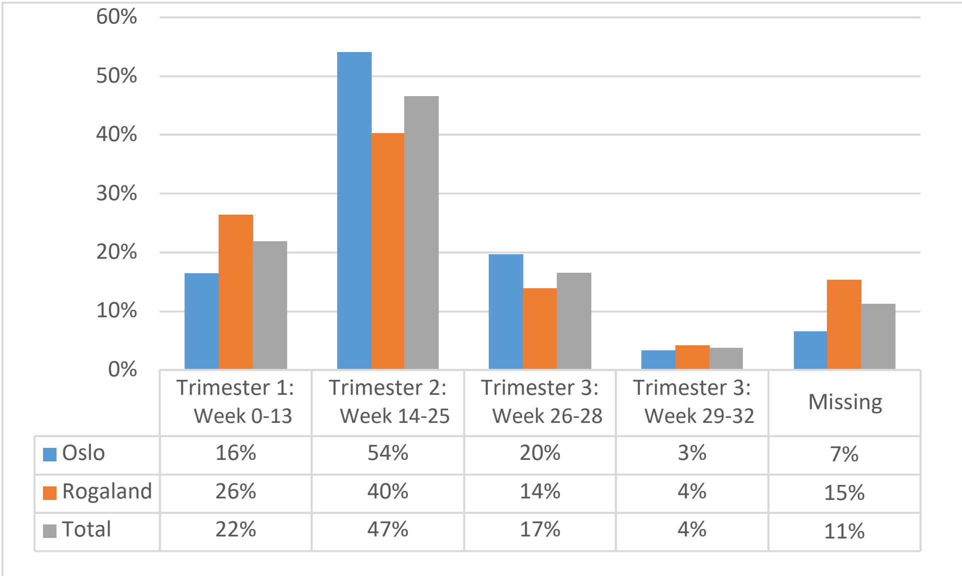
	16-19	20-24	24-	30-	35-41	Missing
Oslo	3%	18%	29	34	15%	20%
Rogaland	10%	19%	18%	26%	0%	60%
Total	7%	19%	8%	3%	7%	41%

Figure 5.5: Age of enrolled participants in Oslo and Rogaland

During the NFP pilots in other countries, participants under a particular age were actively included. The Norwegian sample therefore the other pilots in this respect. In the Canadian pilot, 77% were under the age of 19 (Jack et al., 2012; 2015).

2. *Gestation week*

There are certain challenges associated with meeting the criteria for "ideal" duration of pregnancy at the time of enrolment in the NFP programme. A total of 37% of the Norwegian sample were recruited in gestation week 16 or earlier, which does not meet the NFP criteria for at least 60% of the participants to be recruited in week 16 or earlier. See Figure 5.6 for the distribution of gestation week at the time of enrolment. The mean was lower in Rogaland (X = 19.5; SD = 6.29) than in Oslo (X = 20.14; SD = 6.29).



	Trimester 1: Week 0-13	Trimester 2: Week 14-25	Trimester 3: Week 26-28	Trimester 3: Week 29-32	Missing
Oslo	16%	54%	20%	3%	7%
Rogaland	26%	40%	14%	4%	15%
Total	22%	47%	17%	4%	11%

Figure 5.6: Gestation week at time of enrolment in the programme in Oslo and Rogaland

Almost half of the participating pregnant women were recruited in their second trimester (weeks 14 to 25). A small proportion of women (n = 5) were also recruited after gestation week 28, which is outside the inclusion criteria for the study.

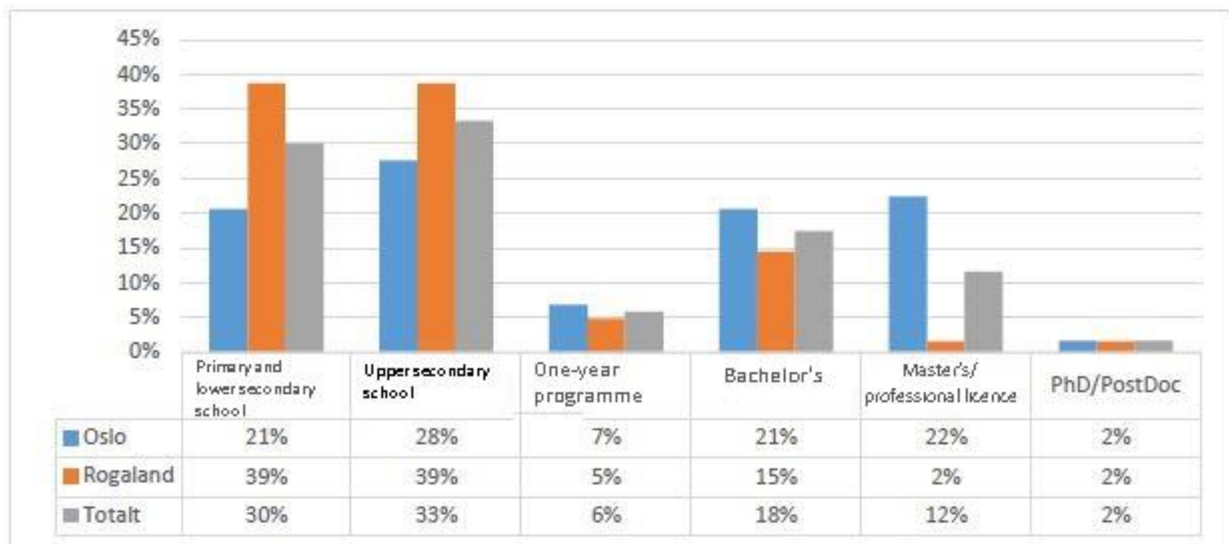
Based on previous NFP pilots, it has been suggested that the effectiveness of the programme increases if the women are recruited earlier in their pregnancy (Olds et al., 1986). It is assumed that this is because there is a
“window of opportunity”, when pregnant women are willing to change for the sake of their unborn baby. Recruiting people at an early stage in pregnancy also gives the family nurse more time to build up a good relationship with the participant before the birth, to change high-risk health habits and thereby improve the chances of achieving positive health effects for both the mother and the baby. Although there will also be a window of opportunity later in pregnancy, it is important to identify and recruit women as early in their pregnancy as possible.

The English pilot also revealed a problem resulting from the failure to recruit > 60% of the participants before gestation week 16 (Birkbeck et al., 2012). In the English piloting of NFP, the mean gestation week was 17.9 weeks (from 3 to 35), and they also recruited candidates after gestation week 28 (n = 6). During this piloting, geographic differences (with 28-73% of recruitment before gestation week 16) were interpreted as reflecting differences in referral details, access to midwives’ records concerning pregnant women and the relationship between the NFP team and the midwives in the area.

In the Canadian pilot trial, most women (87%) were recruited to the programme either before or during gestation week 25 (Jack et al., 2012; 2015). The pilots in Canada and the England are consistent with the Norwegian pilot. This may mean that it is difficult to achieve the goal of recruiting at an early stage in the pregnancy during the start-up of the programme. A higher recruitment rate in Norway may indicate that subsequent scaling-up or implementation might be feasible, once the health and welfare system has become more familiar with the programme and the teams are under way.

3. Education and school drop-out

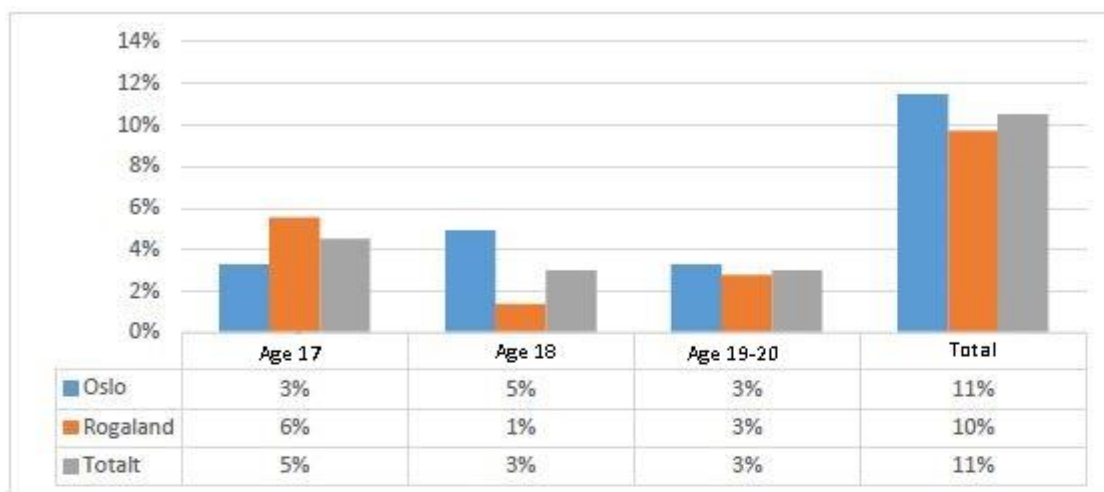
The level of educational attainment varies amongst the participants. See Figure 5.7 for the distribution of the highest level of educational attainment in Oslo, Rogaland and the total for the sample.



	Primary and lower secondary school	Upper secondary school	One-year programme	Bachelor's	Master's/ professional licence	PhD/PostDoc
Oslo	21%	28%	7%	21%	22%	2%
Rogaland	39%	39%	5%	15%	2%	2%
Totalt	30%	33%	6%	18%	12%	2%

Figure 5.7: Level of education amongst participants in Oslo and Rogaland

In Rogaland, considerably more participants only completed lower and upper-secondary education, while in Oslo, more people have a higher education. This also reflects the age differences between the two pilot sites. More of the participants in Rogaland (n = 21) are in education compared with those in Oslo (n = 14). About half of the sample attend lower or upper secondary school/vocational college (n = 14), while the remainder are either in adult education (n = 3) or attending university/college or another institution (n = 15). (Three of those who stated they had been enrolled in a school/vocational college did not respond).



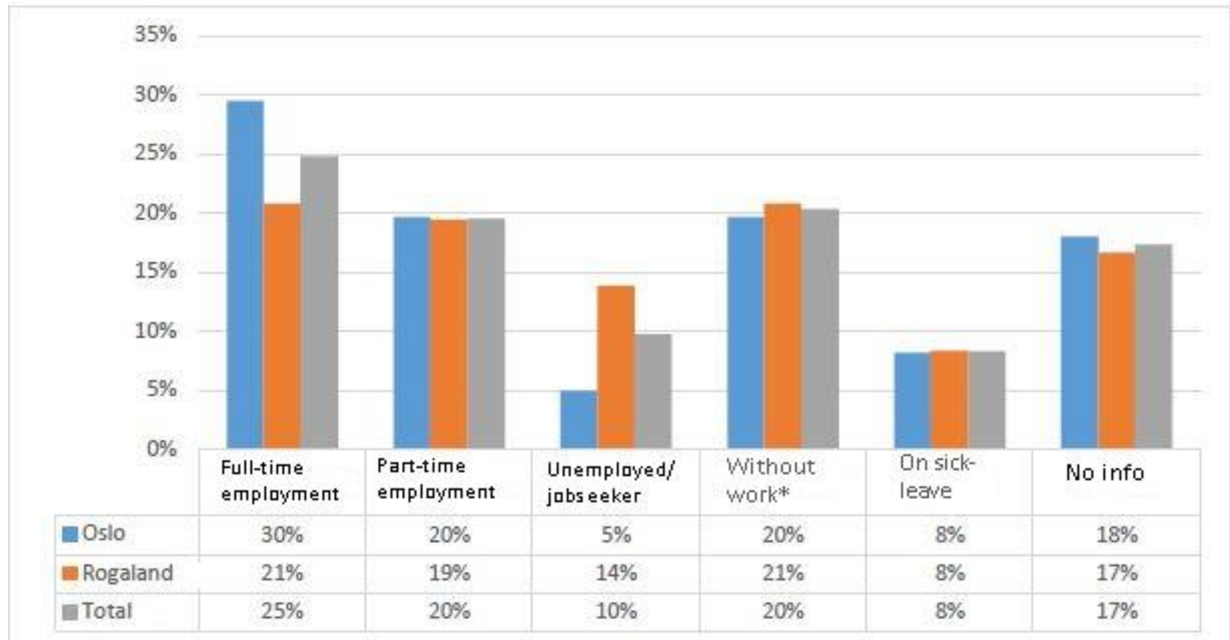
	Age 17	Age 18	Age 19-20	Total
Oslo	3%	5%	3%	11%
Rogaland	6%	1%	3%	10%
Totalt	5%	3%	3%	11%

Figure 5.8: Age of participants who have dropped out of upper secondary education (as a percentage of the total)

A total of 11% have dropped out of upper secondary education/vocational college. See Figure 5.8. The drop-out rate from upper secondary education is about the same for both pilot sites, even though it appears that more of the youngest participants (age 17 years) drop out in Rogaland than in Oslo. However, this difference is not significant.

4. *Employment status and use of welfare services*

See Figure 5.9 for the enrolled participants' employment status and use of welfare services. Around half are in employment, either full-time (25%) or part-time (20%), with a slightly larger proportion in Oslo than in Rogaland.



	Full-time employment	Part-time employment	Unemployed/ jobseeker	Without work*	On sick-leave	No info
Oslo	30%	20%	5%	20%	8%	18%
Rogaland	21%	19%	14%	21%	8%	17%
Total	25%	20%	10%	20%	8%	17%

Figure 5.9: Employment status of participants in Oslo and Rogaland. Those not in employment are students, jobseekers or stay-at-home parents.

There is a higher proportion of unemployed persons/jobseekers in Rogaland (14%) than in Oslo (5%), which may reflect either the economic crises that Rogaland has experienced in recent years or differences in recruitment. More than half of the participants (54%) state that they are in receipt of social benefits in the form of social security benefit, work assessment allowance, unemployment benefit or sickness benefit. A considerably higher proportion of participants are receiving social security benefits in Rogaland (21%) than in Oslo (5%), and a considerably higher proportion are receiving sickness benefit in Oslo (26%) than in Rogaland (8%). There are just as many in Oslo and Rogaland who have no income (13%), and a total of 17% have an annual income of less than NOK 144,000.

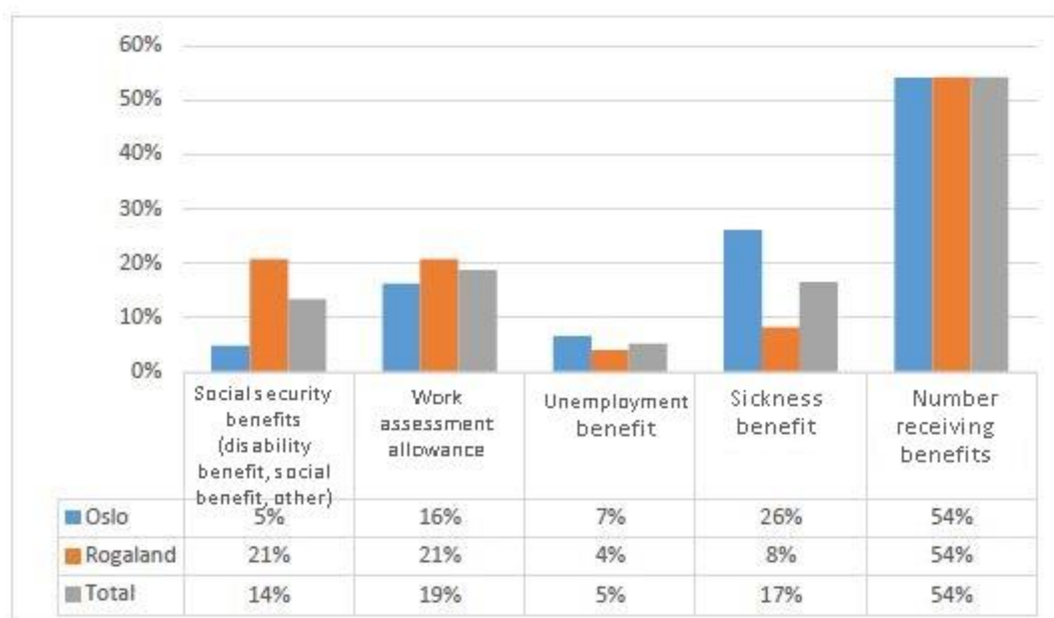


Figure 5.10: The participants' social benefits in the form of social security benefits, work assessment allowance, unemployment benefit or sickness benefit, and total number who are receiving benefits

5. *Language, ethnicity, and interpreters*

In Oslo (34-46%), there were considerably more participants with a non-Scandinavian background who did not speak English at home than in Rogaland (17-24%). See Figure 5.11. In Oslo, interpreting services were used during 24 home visits to four families, and once in Rogaland.

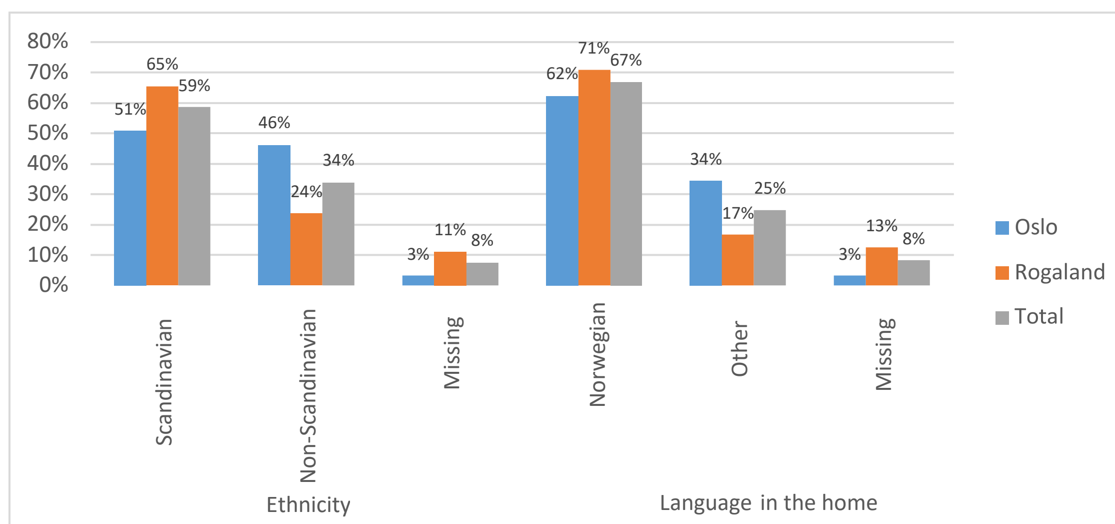


Figure 5.11: Ethnicity and language use in the home

During the Dutch pilot, it was stressed that a very low number of Turkish and Moroccan women were included, even though they potentially account for a high proportion of the target group (Mejdoubi et al., 2015). They refer to previous research which shows that ethnic minorities are less open to support and influence outside the home (De Graaff et al., 2003), and that they can also have stronger social networks around them (Vauce, et al., 2002, JCCP in Mejdoubi).

6. Self-mastery (self-efficacy)

Information on mastery was collected from 53 participants in Oslo and 60 participants in Rogaland. See Figure 5.12. 27% are categorised as having a low level of mastery and 73% are categorised as having a high level of mastery.

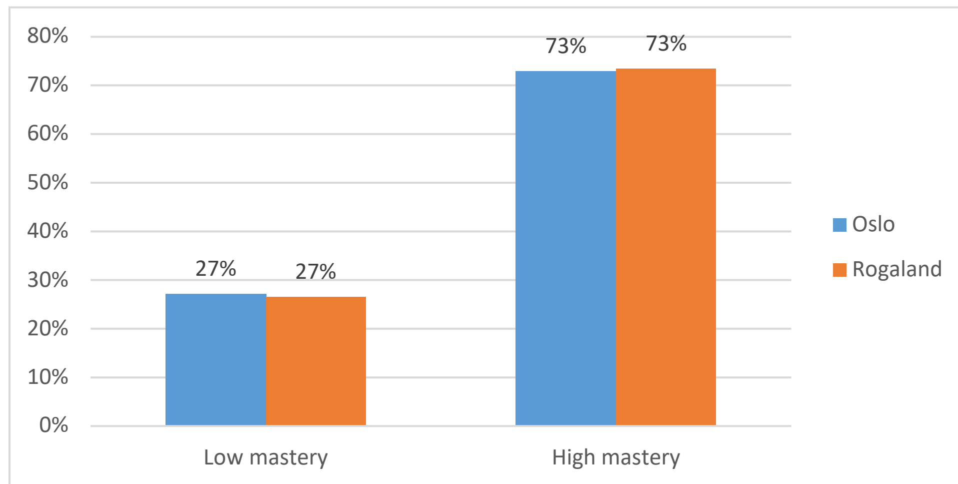


Figure 5.12: Self-mastery (self-efficacy) amongst the participants.

7. Mental health and loneliness

A total of 48 participants in Oslo and 50 in Rogaland answered questions about mental health. See Figures 5.13-5.15 for the distribution of depression, anxiety and loneliness amongst the participants. Considerably more participants in Oslo (40%) meet the criteria of having moderate, moderately severe or severe depression than in Rogaland (28%). Nevertheless, the figures are high for participants from both pilot sites. There are also more participants in Oslo (27%) who meet the criteria of having moderate or severe anxiety than in Rogaland (24%). In addition, 8-14% stated that they often feel isolated, excluded and lonely (i.e. they do not have a single friend who can support them).

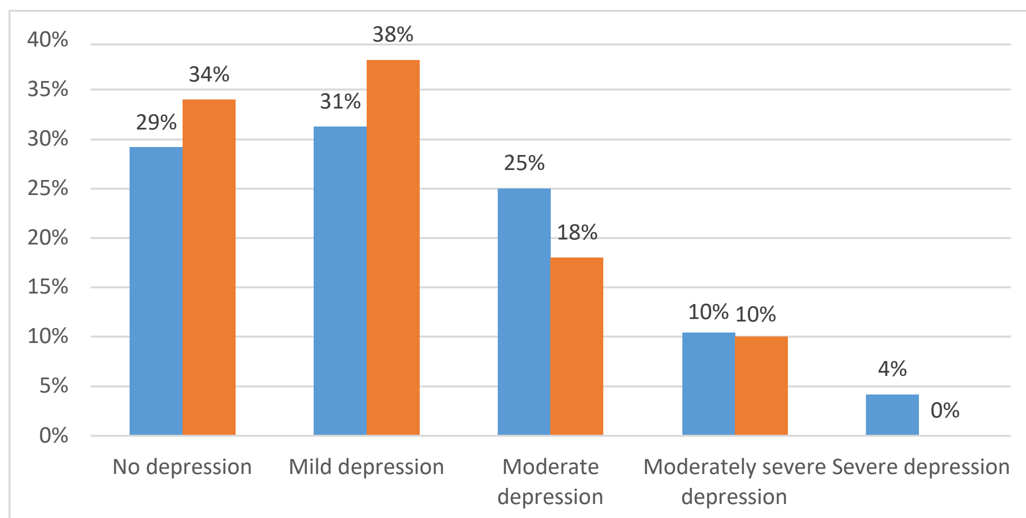


Figure 5.13: Symptoms of depression amongst the participants measured using the "Patient Health Questionnaire" (PHQ-9)

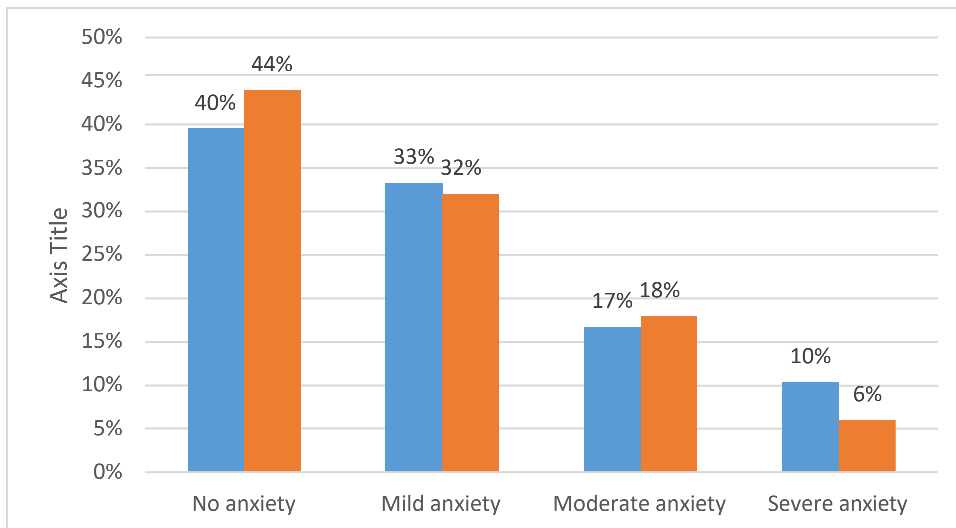


Figure 5.14: Symptoms of anxiety amongst the participants measured using the "Generalized Anxiety Disorder scale" (GAD-7)

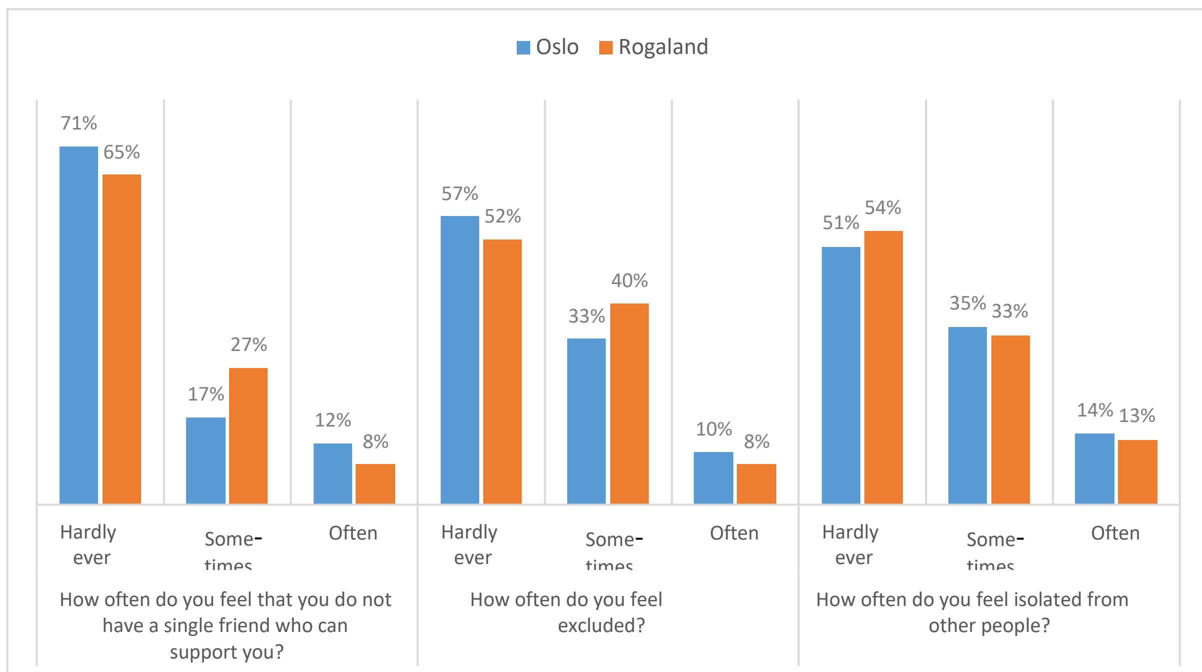


Figure 5.15: Loneliness and isolation amongst the participants measured using three questions

In summary, the quantitative data indicate that the *age* of the participants varies from 16 to 41. The mean age in Oslo was 29 years, and in Rogaland was 22 years. On average, participants have *lower educational attainment* than the rest of the population. Thirty percent of participants have completed lower secondary education, 33 percent have completed upper secondary education and 33 percent have graduated from a university college or university. The participants have *a low level of labour market attachment*. Fifty-four percent of participants are receiving some form of social security benefit (social benefit, disability benefit, unemployment benefit, work assessment allowance, sickness benefit). Fifty-nine percent of the participants had an *income* below NOK 345,000. Thirty-two percent of participants had *a non-Scandinavian background* and 22 *percent did not speak Norwegian* at home. Around 70 percent of participants are suffering from *mild to severe depression*, and around 50 percent are experiencing symptoms of *anxiety*. Ten percent stated that they often feel *isolated and lonely*.

5.6 Exclusion

5.6.1 Quantitative description of excluded participants

A total of 18 participants in Oslo and 7 in Rogaland (n = 25) did not meet the criteria for enrolment in the programme.

Table 5.9: Reasons for non-enrolment in Oslo (n = 21) and Rogaland (n = 24)

Inclusion criteria	Oslo	Rogaland	Total	
	n	n	n	%
Exclusion criteria				
Planning to move out of the pilot site	5	1	6	15 %
Intending to give the baby up for adoption	0	0	0	0%
Declined to participate	4	3	7	18%
Declined to participate				
The programme is too extensive	4	0	4	10%
Dissatisfied with the programme	0	0	0	0%
Needs are met by another programme	1	1	2	5%
No time for visits	2	1	3	8%
Sufficient knowledge or support	4	5	9	23%
Would not benefit from the programme	4	0	4	10%
Family declined to participate	0	0	0	0%
Declined to participate - other	1	1	2	5%
Other reasons*	1	2	3	8%
Total number of responses	**26**	**14**	**40**	

* n = 1 wants to participate, but does not meet the criteria, n = 1 thinks it will be demanding, is unsure and has good support, n = 1 partner is facing challenges but not the mother

There were also three individuals in Oslo and 14 in Rogaland, i.e. a total of 17, who declined to be enrolled even though they met the inclusion criteria. A total of 42 people (21 participants in each pilot site) were therefore not enrolled in the programme after the referral. Forty of these are represented below in Table 5.9 with the reasons for their exclusion or the reason why they declined to be enrolled in the programme.

The reasons for non-enrolment include the scope of the programme, not enough time for home visits, sufficient knowledge/support, no benefit from the programme and the fact that their needs were met by another programme. No one stated dissatisfaction with the programme or their family's wish not to be enrolled as a reason for not participating. In addition, no one was excluded because they intended to give their baby up for adoption after birth.

See Table 5.10 for differences between included and excluded participants as regards age, language and ethnicity. It is difficult to investigate differences between these participants because the data are incomplete. However, based on the information that is available from the referral forms, there do not appear to be any significant differences between the included and excluded participants as regards any of the various characteristics in the table.

Table 5.10: Included versus excluded participants

Characteristics	Included		Excluded	
	n	%	n	%
Age of mother				
16-19	9	7%	1	2%
20-24	25	19%	4	10%
24-29	17	13%	4	10%
30-34	18	14%	8	19%
35-39	6	5%	1	2%
40-41	3	2%	1	2%
N/A	55	41%	23	55%
Language				
Norwegian/Scandinavian	100	75%	31	74%
Other	25	19%	6	14%
N/A	8	6%	5	12%
Ethnicity				
Norwegian	78	59%	25	60%
Other European countries	11	8%	3	7%
Non-European countries	39	29%	9	21%
N/A	5	4%	5	12%
Total	**133**		**42**	

5.6.2 Qualitative discussions concerning exclusion and exclusion criteria

Amongst families who were not included in the programme, it is possible to distinguish between those who were excluded, and potential target groups for the programme who were *not* included.

Women with an immigrant background are part of the group of participants which might have been expected to account for a high proportion of the participants, yet where few were included. This is particularly the case in Oslo, where this group forms a large group of the population in the catchment districts. The Team and the NFP Board initially wondered whether this was because they represented a group that was difficult to reach, and consequently made an extra effort to reach out to this group. Amongst other things, the Team contacted a Somali women's group and attended meetings at the largest mosque. According to the Chair of the Oslo Board, it gradually became apparent that the group which had an immigrant background was not what they originally thought, and that women who were born in Norway to immigrant parents did not have any more vulnerability factors than the majority, and therefore did not constitute a large group of potential enrolees.

> *"Immigrant first-time mothers are very different from their predecessors ten years ago. They are well-informed, they have a job, they have an education, they do not carry the baggage that*

we thought. So that was a hypothesis we had, and which we were banking on. That there were many immigrant women who faced many challenges. But first-time mothers today are so well-integrated in Norway. You just feel proud when you see them". NFP Board Chair. Oslo

However, according to the NFP team in Oslo, amongst the participants with a different ethnic background, there are many women who have recently arrived in Norway in a family reunification arrangement. These women can face challenges associated with having a limited network, a lack of awareness of services, a low level of knowledge and linguistic challenges.

Both of the NFP teams highlight participants with cognitive challenges as a group who are unable to take advantage of the programme, and as a group whose eligibility for the programme should be evaluated.

"After all, the inclusion criteria state that they must be able to make use of the guidance, and I think that is where they have shortcomings; they won't be able to make use of the guidance. They might be too "heavy" a group, they need a lot more, we visit them every fortnight, which is just not enough. They might need an activity therapist who can be there for them, or they might need closer support than we are able to provide. Family nurse

The family nurses define the group with cognitive impairment as made up of individuals in the lower range of normal intelligence and who may be experiencing problems with learning, internalising knowledge and mentalising other people's views and state of mind. In the pilot, this group of participants is distinct in that they need more support than there is capacity for in the programme, and in that they need close support from the standard services. The family nurses stated that, although other services are helping the families, this is still not enough to improve the participants' parenting skills, and that they might have needed more one-on-one guidance and support. The main reason why they are not suitable for enrolment in the programme is not necessarily that they need more support, but that they are unable to take advantage of the guidance. The family nurses reported that they find it difficult to bring about personal development amongst the participants through reflection concerning different situations with the baby.

"I think it is the toughest group, because we use a lot of reflection in our work. We talk about a topic and we also reflect on it and link it to situations with the baby. My experiences with that group strongly suggest that reflection is very difficult. They are unable to take onboard information that you give, because they are unable to reflect and reason. Because much of what NFP is about is personal development, taking situations and trying to work your way through to a new and better understanding". Family nurse

The inability to mentalise makes it difficult to work with a strength-based approach. Working with a strengths-based approach means identifying the positive, good elements in the mothers' parenting, and then working to develop them further. Family nurses cite challenges associated with working with a strengths-based approach with individuals who have a cognitive impairment. One of the reasons is that this group can interpret positive feedback as a sign that what they are doing is right, instead of as a starting point for improvement.

"It can be difficult in relation to the strengths-based focus that we have within NFP, that we must empower them and be resource-oriented. When you realise you are unable to empower them, that they are not taking it onboard, no progress is made". Family nurse

In the Dutch pilot (see for example Mejdoubi et al. 2015), pregnant women with cognitive impairment were excluded from the study. There is no overview of how many participants fall into this category, but it appears to be a substantial number.

The family nurses identify the Pipe tool as key to working with this group. Nevertheless, they report that they do not have a lot of time to familiarise themselves with the tool, so that they can use it properly. They also believe that the tool requires you to work very specifically with very small goals. This process takes a lot of time – determining what the goals should be, creating a setup and actively working with the participant, and it is possible that this is too big a task to undertake within the framework of the NFP programme.

A couple of family nurses explained that there are some participants they are considering ending the partnership with, because they are not seeing any progress in creating change, and that they are finding that the participant needs more attention than it is possible to give in NFP. Termination of an individual NFP partnership is agreed with the participant and other relevant services, such as the Child Welfare Service.

5.7 Attrition

The team leaders maintain an overview of participants who have left the programme or withdrawn. See Tables 5.11 and 5.12. There is some variation in the reasons for attrition between Rogaland and Oslo. There is a mixed picture in Rogaland, with cases involving the death of the participants' children, miscarriage and care proceedings.

In Oslo, the main reasons behind attrition are the participants moving and the replacement of a family nurse. There are also some participants who stated that they are dissatisfied with the programme, but this is not the main cause of attrition amongst participants. In Rogaland, the main reasons are miscarriage of the foetus, death of the newborn baby or a family nurse sending a notification of concern to the Child Welfare Service.

Table 5.11: Reasons for attrition in Rogaland

Reason:	Attrition:
Unable to contact the participant	1
Moved	2
Miscarriage	4
Death	4
Replacement of family nurse	1
Notification of concern to the Child Welfare Service	3
Child taken into care	1
Needs met by other services	1
Dissatisfied with the programme	1
Other	
Total	**18**

Table 5.12: Reasons for attrition in Oslo

Reason:	Attrition:
Unable to contact the participant	2
Moved	5
Miscarriage	
Death	
Replacement of family nurse	5
Notification of concern to the Child Welfare Service	
Child taken into care	
Needs met by other services	
Dissatisfied with the programme	2
Other	
Total	**14**

5.8 Summary

The two-stage recruitment model has required a close partnership between the family nurses and the front-line service which refers participants, and establishing this partnership was a labour-intensive process. Nevertheless, this situation has gradually been improved during the pilot, and the two-stage model now appears to be working well. Although there was some mis-recruitment during the start-up phase in both Oslo and Rogaland, an increasing number of “appropriate” participants are being recruited. This is in line with previous pilots and is natural given that Norway has a smaller and more dispersed population than other countries. In some cases, mis-recruitment resulted in participants possessing so many resources that they would have been able to access other welfare services. In other cases, participants with cognitive deficits are unable to take advantage of the programme’s care delivery. This is as aspect to take onboard in connection with the future scaling-up of the programme.

Collectively, the quantitative and qualitative data indicate that the participants in the Norwegian pilot are a more diverse group than those seen in NFP pilots in other countries. Although the participants have more vulnerability factors than the general population (more than half mention challenges in their childhood and mental issues, 40-50% are in employment, more than 50% are receiving social benefits), it appears that the participants in Norway have more material resources.

The families enrolled in the program are older (many are in their 30s) and more have a job and their own home than was the case in previous pilots. Nevertheless, these participants are facing challenges relating to mental health, unstable relationships/partners who abandon them, and they have no parenting models to draw on from their own childhood.

The quantitative data indicate that around 70 percent of the participants are suffering from mild to severe depression, and around 50 percent are experiencing symptoms of anxiety. The fact that many of the participants are facing mental health challenges and have a long history of psychiatric problems also became apparent during the interviews with the family nurses. In addition, many participants face challenges in interacting with the child, bonding with him/her, interpreting signals and understanding their needs. Family nurses therefore believe that participating families are in need of the type of support that NFP provides.

On the one hand, the target group in Norway is now different from those in other pilots (with older

and more resourceful participants), so it is less certain that the programme will contribute as much positive change amongst the participants as has been achieved in other pilots. On the other hand, both the family nurses and the participants themselves believe that they need the programme because of the challenges that they face. Due to the broad group of participants included in Norway, it will be difficult to find a comparator group for this real-time evaluation. If the programme is continued, it will therefore be important to conduct a carefully planned randomised, control trial to determine whether the programme is having an impact in Norway.

6 The NFP participants' experiences and acceptance of the programme

In this chapter, we present some of the experiences gained amongst a sample of the participants in the NFP pilot, based on qualitative interviews of participants. We describe the search process from their perspective, how they were introduced to the programme and why they decided to participate. We examine the participants' perceptions of care delivery by the family nurses, and examine whether they are experiencing overlap and any differences between NFP and other services (such as the Child Welfare Service and the Maternity and Child Health Care Centres). We report on how the participants find participating in the programme, what they consider to be positive and what they consider to be negative.

6.1 The candidacy process from the participants' perspective

The participants gave three main reasons why they were unsure whether or not to take part in the programme:

1. They have negative experiences from their own encounters with the Child Welfare Service.
2. They are reluctant to join a structured programme that extends over a number of years.
3. They do not consider themselves to be the "type" that asks for help, at least not such close support.

The participants are usually referred by a midwife at the Maternity and Child Health Care Centre or a GP, who provides information on the programme. The midwife and GP either give the participant the team leader's contact details or sufficient information to enable the participant to make contact themselves. The participant then receives a telephone call from a family nurse, who briefly explains the programme and invites the participant to attend an interview. This "screening interview" is intended to assess the participant's needs as regards support, and usually takes place at the NFP team's office, at the participant's home or at a café. For many of the participants, this meeting was important because it made it easier to assess whether the programme was something they would be interested in. Nevertheless, the key factor that they mention is the family nurse. Most people stated that they found the family nurse reassuring and confidence-inspiring, and someone they wanted to get help from. They were not like other employees in the public services and were "warm, nice and amazing". The personality and manner of the family nurse can therefore be a decisive factor behind a desire to participate in the programme, to "give it a go":

> *"I was a bit sceptical and thought, two years, do I really need that? But then I decided to meet [the family nurse] because I wanted to have an open mind. And when I met her, I thought she was fantastic. She was a huge source of support for me during my pregnancy, because it was a bit difficult at times. I'm really pleased that I took part, that I gave it a chance, it is very important".* Participant 3

Many of the participants stated that they did not want to take part in the programme at first. Some had read

about the US NFP programme online and felt that they fell outside the target group. The first impression could be characterised by the perceived stigmatisation of the participants, and some said that they felt insulted.

> *"I was very ambivalent towards it when [my GP] recommended that I take part, because I had read about it online and I was very against it, because I felt that it was for drug addicts and people like that, so I was actually quite insulted. But then I slowly came round!*
>
> *No, [the family nurse and I] got on so well on the phone that I felt that I had to say yes to it and find out what it was all about".* Participant 10

The vulnerability factors (such as young age, uncertain accommodation situation, child protection background) amongst participants in the US programme made it difficult for some of the Norwegian participants to understand that the programme might also be relevant for a 'mature' first-time mother in work and with her own apartment. It was therefore important that the family nurse was able to explain about the programme in more detail. For the participant, it was vital to establish good contact with the family nurse, and it was this relationship that became the important factor in determining whether or not they wanted to take part in the programme.

Other participants have experiences from the Child Welfare Service and other agency interventions which has made them sceptical about close support involving home visits. Some expressed strong dissatisfaction over their encounter with other services, such as Maternity and Child Health Care Centres. The meeting with the family nurse was therefore important in order to clarify the sort of support that the programme entails, and to make it clear that the programme is not run by the Maternity and Child Health Care Centre service or the Child Welfare Service.

> *"I was actually very reluctant, because I am very sceptical of the Child Welfare Service. I was completely against it, because it was mentioned at a very early stage when I was at the Maternity and Child Health Care Centre, so I just said no thanks. Because I thought [the Maternity and Child Health Care Centre] was just interfering, people who might misunderstand me. Because a lot of strange things go on there. But eventually I discussed it with other people, the possibility of actually learning from [the Norwegian NFP programme], because after all they focus on children and mental health and so on. So, then I thought that maybe it's a good thing, because I don't have too many other people I can turn to for help. It's quite scary to be alone in it".* Participant 1

The first meeting with the family nurse seems to be decisive as regards whether or not the participants decide to take part in the programme, in that the family nurses are reassuring and able to build up a personal relationship. Some of the participants mention that it was important to them that the programme is not run by the Child Welfare service or the Maternity and Child Health Care Centres, because they have had negative experiences with institutions and staff which led them to expect unwanted interference and suspicion, rather than support and assistance.

> *"I suppose it was the fact that it was a strict programme, things that were to be followed. But I decided to say yes anyway and I've come to realise that it isn't like that, that one slavishly follows the programme. You do have to follow plans and topics, but we have not actually gone through that much, because I already knew a lot beforehand. So there have been things that have happened along the way, it has been very stressful, and that has been what we've been talking about instead".*

Participant 8

For this participant, the fact that the programme has a clear structure meant that it was inflexible and that there was little room for her individual needs. However, her experiences showed that this was not the case and that the care delivery from the family nurse could be adapted to take account of her challenges both during her pregnancy and after the birth.

The family nurse becomes important for the recruitment process because many of those who are referred to the programme by the midwife or doctor do not initially want to take part. The family nurse can provide more detailed information about the programme, which increases the motivation for people to participate. Important motivating factors for participation are the desire to do the best thing for the baby, and the realisation that it would be good for the baby they are carrying to accept the help that the Norwegian NFP programme offers.

> *"I was very sceptical then. I don't like that sort of thing at all. I think it's very special to share your life with someone, and people will come and tell you things, and... but then there was something that was uncertain, a baby, and you'd love it and take care of it, and you wanted someone to take care of you too. So after debating it with myself for a while, I decided I would take part. I would have never done this just for me. But suddenly it all revolved around someone else, about the baby, so then I thought that I can't do this, I can't gamble".* Participant 6

The fact that the family nurse places the baby at the centre of the care delivery makes it easier to agree to take part. The participants are strongly motivated by the desire to do their best for their unborn baby, and to bring someone into their life who they believe can look after them both. One reason for not wishing to participate/ wishing to participate is a lack of trust in the welfare services. The participants cite their own experiences with the health services (previous dissatisfaction and negative experiences of the Child Welfare Service/Maternity and Child Health Care Centre), and the characteristics of the programme (stigmatisation, rigidity) as reasons why they are unsure whether or not to take part, while they refer to the attributes of the family nurse (relationship-building, reassuring and supportive), as well as more detailed information about the programme (flexibility) and a desire to do the best thing for the unborn baby as reasons why they decide to take part.

6.2 Perception of overlap between the services?

One issue in the NFP pilot in Norway is whether the programme overlaps with other services. Many of the participants we spoke to are seeing a psychologist. Some receive respite care from the Child Welfare Service. Amongst the participants in Oslo, many have received help from the Ullevål Hospital team for substance dependency in pregnancy. They all attend their local Maternity and Child Health Care Centre for standard care. Do the participants think that these services overlap?

The participants consistently see the family nurses as being different from a psychologist, the Maternity and Child Health Care Centre and the Child Welfare Service. The family nurse visits the families at their home and, although she is a source of knowledge, she does not represent the public authorities. The family nurse is also available via mobile phone. For some participants, she becomes pivotal as a source of emotional security and support and is able to perform the role of an absent parent or partner. For others, there is a greater emotional distance, but they appreciate the visits, a

reliable relationship and the transfer of knowledge. The care delivery from a family nurse appears to be different from that provided by other services, and many of the participants seem to take a little time to work out what the family nurse intends to help them with. The supportive role of the family nurse can range from providing emotional support to practical/informative support (such as help with filling in forms). It can to some extent be up to the participants to decide whether or not they want emotional, practical or informative support to be the focus of the care delivery, but a strong relationship lies behind all forms of care delivery. For those who also receive other support, they make a strong distinction between support provided by other services and having a visit from a family nurse.

> Participant 8: *"The person that the [family nurse] is concerned about is of course the baby, whilst the psychologist is mainly concerned about me, that's the way it is. So she [the family nurse] is sort of "inside" the family, she can assess the situation more on the basis of the baby's needs; they help to monitor developments. So there is a big difference I think; it is probably the biggest difference".*
>
> Interviewer: *"You say you can call [the family nurse], but can you call the psychologist too?*
>
> Participant 8: "*No, he's working after all, and I have a telephone appointment, half an hour every day, so it's not the same. I think perhaps [the family nurse] does more than she should from that point of view. I really appreciate it. I don't suppose everyone would have done the same thing. But that's what makes a difference, when they go that bit further. I never feel that she is at work when she visits us at home".*

Although the participant is aware that the family nurse is employed by the NFP programme and has the job of providing support, the relationship is different and more substantial. It does not seem to the participant that the family nurse is at work when she arrives for a home visit, unlike the situation when care is delivered by a therapist, for example. She emphasises the strong relationship and the fact that the family nurse also focuses more on the baby, while other services tend to focus more on her.

Many participants stated that the family nurse has helped them to communicate with other services. For example, they may attend meetings with the Norwegian Labour and Welfare Administration (NAV) and the GP, and explain the participant's challenges to both the GP and the participant. For some participants, the family nurse is someone who can help them deal with the Child Welfare Service; for others, the family nurse provides support in connection with the interaction with the Child Welfare Service, which makes it easier for them to receive help.

6.3 Different support from NFP and other services

Many of the participants have had negative experiences of the national healthcare and welfare system in the past. They describe the NFP programme as being different from other areas of the system (Child welfare service/Maternity and Child Health Care Centre service), and believe that the family nurses' focus on strength, good relationships and lack of "negative criticism" makes NFP different from other types of support.

For participants with negative experiences of the other services, the family nurse can provide support

in the interaction with these services. Family nurses employ a strengths-based approach and aim to reassure and support the mothers in their care provision. Some of the participants stated that they see this as being different from the Child Welfare Service, which they consider to be critical and judgemental.

> *"So I don't think I would have been as good a mother if it hadn't been for [the family nurse]. Or as secure as I am. She reassures me. She manages to calm me down if I get worked up about something, like the Child Welfare Service, then she'll say: it's all OK, you are so good, you're doing the right thing, you just have to believe in yourself and have faith in yourself. I ask if I am doing things right, whether I could have done things better, what can I do, and then she'll say: everything's fine, there is nothing wrong. That's the exact opposite of the Child Welfare Service. They try to deceive you; they will usually say different things and then try to find things that are wrong."* Participant 9

The family nurse is reassuring, but direct and clear in the feedback she gives. This is how she differs from the Child Welfare Service, which is described as being supportive one moment, and then using mistakes that they make "against them" the next. Participants who have been in contact with the Child Welfare Service describe the service as critical, judgemental and ambiguous, and often portray it as a negative counterpart to the family nurse. With such experiences, some of the participants can find it difficult to open up and ask someone to support them in the provision of care and in their everyday life. However, the family nurse is not seen in this way; instead, she is seen as a reassuring figure because the feedback she gives is real and the participant learns how to be a good parent.

Many of the participants also stated that they felt they get little support from their Maternity and Child Health Care Centre. The advice received is rarely adapted to take account of their needs, they can become stressed by the fact that the health visitor is judgemental and find that there is little time to talk about the baby's development and their own needs.

> *"At the Maternity and Child Health Care Centre, they just look at [the baby] and see how it is doing; she sometimes speaks to me too of course, but I speak to the [the family nurse] more; she has more time".* Participant 9

Participants stated that they believed that there is an important difference between the Child Welfare Service and the Maternity and Child Health Care Centre, which the participants find dictatorial, controlling and critical, and the family nurse, who is more caring and supportive. Some of the participants also stated that they find that the family nurse can be a witness to their ability to care for the baby in the event of a child welfare issue arising. The presence of a helper outside the Child Welfare Service appears to be particularly important for this group of participants, who had negative experiences of the Service during their own childhood and consequently have no trust in the ability of the Service to be supportive and offer help and support. The Maternity and Child Health Care Centre may also not provide sufficient help for some participants, because they need a strong and trusting relationship in order to express their needs as regards help, and because they find that the information and the training they receive is not adapted to take account of their particular situation.

6.4 Type of support from family nurses

The participants place greatest emphasis on the unique emotional support to which they have access through the family nurse. The family nurses are easy to approach for help and advice and are available by phone. The family nurse is someone they can draw strength from when things get difficult, and who can provide feedback and reassurance concerning how they are caring for their baby.

> *"[The family nurse] has assured me I will be able to do this, and showed empathy. Just the fact that she was available by telephone during the first few months after I had given birth, I can't describe that... It was just like that, wow.... I came home with a tiny life that was so big. I found it so overwhelming and that's partly because of my childhood ... that I am responsible ... and I didn't think that the child should have just one parent; i thought it was so degrading. So I didn't believe I would be able to cope. And that's what [the family nurse] has done all along, I don't know what I would have done without her".* Participant 1

Some participants stated that they have felt very isolated - they may have been abandoned by their partner, had few close relationships, a limited network and a lack of parental support. During the first few months after the birth, the participants found it very reassuring to know that they could call the family nurse, because they had no one else to turn to. Without the family nurse, they would not have had anyone they could ask for support, to ask questions and to share little pleasures and victories in everyday life.

> *"I have no family whatsoever. 'During the toughest period of my whole life, I have never been so vulnerable; it's been so tough not to have any family. Just the fact that she answered me; she has always given me a feeling that "ah, someone's coming to see me". Because being so alone in that role, it's the loneliness I haven't been able to cope with.*
>
> *And she has always encouraged me. Goodness, I cannot tell you how much that has meant to me".* Participant 1

For first-time mothers, who have a limited network and little social support, the family nurse can perform an important role. By being available, engaged and invested, she makes sure that vulnerable families do not feel isolated during one of the vulnerable phases of their lives. Many participants see the family nurse not as a representative of a government agency, but as a close friend who is "on their side".

> *Interviews: During the programme, did you think that you no longer wanted to participate, that it was not for you?*
>
> Participant 6*: "No, never actually. That's the strangest thing, because I gave it very little chance. But it actually turned out to be something quite special; I think there was a bit of chemistry between us right from the start, and it wasn't a case of me having to sit there and answer, I don't know; it was more that we were on the same side right away, that she wasn't looking to see how you did this or that, is it right or wrong. It was more that she wanted to be there for me, in a way. She was more someone who wanted to be there for me. And that is what I needed after all, maybe. Without my knowing it".*

Many of the participants said that they found that the family nurse became part of the family, and that

they become part of everyday life in the home. You don't have to clean up before the family nurse arrives, and you can talk to them like you would to a friend. This is very different from other experiences. While the guidance given by the Child Welfare Service and the Maternity and Child Health Care Centre has been characterised by critical assessment, the guidance from the family nurse has been informal and characterised by equitability and emotional closeness.

> *"I had expected it to be more like a school, with you being told how you should do things, be given marks for this or that, if you understand me right. [The fact that the family nurse visits you at home] I think is the best thing about the whole programme; it is the fact that she visits you, just there and then, it's not like you have to run down and tidy up, you have to finish eating and be sitting there ready. She just becomes part of your everyday life and we take it from there. That's why she becomes sort of family".* Participant 6

The family nurse is invited "backstage" and gets to see an unembellished everyday life with the child. This makes her someone you do not have to pretend to be someone else to and who comes into the family on the family's terms.

Many of the participants initially mention practical things when we ask what they talk to the family nurses about – how to get the baby to sleep, how to fill in these documents and what you should put in your bag when you head off to the maternity ward. Talking to family nurses is "pleasant and useful", because they know so much and because they have so much experience. The participants also stated that they greatly appreciate the guidance relating to their interaction with the baby, and the fact that they are being given guidance and help to improve their own parenting.

Some of the participants reported that they sometimes found it challenging to obtain information about pregnancy, children and childcare. Others find that it can be scary to look for information on the internet, because there is so much contradictory and incorrect information. So it was better to get answers to questions from the family nurses, who would help them with everything from the types of babycare equipment to buy, to interpreting the symptoms of the baby's illnesses.

> *"I'm very happy that I have had [the family nurse] with me all the way. Being able to contact her when I got scared or unsure what to do and to get that reassurance the whole time. The fact that I am doing things right and getting a lot of advice about things I am unsure of".* Participant 2

Many of the participants also mention that the programme should be a universal scheme – everyone should be able to access the care delivery they have received, because these are things that every new mother should learn, and they find that the information they have got is not common knowledge amongst other mothers they know. They stated that their baby is measured and weighed at the Maternity and Child Health Care Centre, and that they are sometimes reprimanded, but also that they do not receive enough emotional support or information. This can be interpreted not only as a desire to normalise an extraordinary service, but also as recognition that the family nurses are able to pass on knowledge that they have not been given elsewhere.

6.5 Perceived shortcomings and challenges associated with the programme

All participants were asked whether there was anything they were not being given help with, or whether there was anything they were dissatisfied with. The participants who were interviewed were all very satisfied and positive about their own participation. A couple of responses related to the fact that they would have liked more practical help, but this was said in a humorous way.

The participants' level of satisfaction with the programme was reflected in their thoughts on the termination of the programme. Because for some participants, the programme will come to an end in a few months at the time we interviewed them. They stated they will find it difficult to live without the care delivery and that they wished that the family nurse would carry on attending to them in the future.

> *"That's the way it is because she's been with us for two years, and now it's all over. But I have told [the family nurse] that; it's going to be really weird. She can't just disappear; she also says that she feels attached to us, so the fact that she is just going to disappear..."* Participant 8

The fact that the care delivery is based on a close relationship makes ending it difficult for some participants. While some have received the care delivery they needed; other participants have come to see the family nurse as a key source of support in their lives. The need for a person like this who can provide support will not end simply because the child reaches the age of two, and makes the end of the programme challenging. The challenges that might arise at the end of the programme, and the scale of participants affected by them, will be addressed once more of the participants have been through this part of the process. This applies to very few participants at present.

6.6 Summary of the participants' perspective

Amongst the participants we interviewed, the vast majority were very satisfied with the programme. They think the programme differs markedly from other support that they receive/have received in the past, and mention the relationship with the family nurse as being the key aspect. The vast majority stated that the programme has provided them with vital support during a difficult period of their lives. A minority do not place such great emphasis on the fact that the care delivery is perceived to be indispensable, but they still believe that the programme has been supportive and educational.

None of the participants that were interviewed mentioned anything about any challenges or shortcomings of the care delivery. Many were sceptical at first, but subsequently found that the programme was adapted to take account of their needs and schedule. Many participants stated that the programme is very different from other support services, and that it is the relationship with the family nurse in particular which has led them to see the programme as being so pivotal and important in the transition to becoming a parent. For all the participants, the family nurse has been a reassuring figure, who has been available and supportive. Unlike that from the Maternity and Child Health Care Centres and the Child Welfare Service, the care delivery under the programme is not seen as being critical, but as supporting and developing. For those participants who have had negative experiences of the Child Welfare Service in the past, NFP care delivery is even more important, because they can be open to receiving other support through a secure relationship with the family nurse.

The positive experience of being a participant in the Norwegian NFP pilot is reflected in the experiences

of other countries. Similar experiences were reported in the Canadian trial (Landy et al. 2012). In this, for example, three similar main themes emerged from the interviews with participants: Participation in the programme, the fact that the family nurses are both an expert and a supportive friend, and the fact that NFP has made the participant a better parent.

7 The partner's inclusion and experience of the programme

One area where Norway differs from other countries as regards the NFP programme is the considerable extent to which parenting tasks are shared. Previous parenting interventions and general family research have traditionally focused solely on mothers. There has long been a tendency to see mothers as being the main care-giver (Phares & Compas, 1992; Phares et al., 2005), and a keener focus on fathers has been advocated within the fields of development psychology (Ramchandani & Psychogiou, 2009; Løchen, 2015) and reproductive research (Ellingsæter & Pedersen 2013). Norway also differs from other countries in having a high degree of gender equality, which is reflected in Norwegian parental leave and increasing involvement of fathers in the daily care of the child (Kitterød & Rønsen, 2013). Norwegian fathers have an involved parenting role and have rights as regards parental leave, leave to attend to a sick child, etc. Both the Scottish and English pilots looked at the fathers' perceptions and outcomes (Ferguson & Gates, 2015; Hall and Hall, 2007; Wimbush et al., 2015). They found that it was not only important to include the fathers in the programme, but also challenging, and that NFP could be of particular importance as regards the interaction between the parents. In the present report, we include an account of the fathers' views concerning participation in the programme.

Amongst the participants who are still with the child's father (n = 102), the vast majority (98%) have daily contact with the child's father. The majority of the participants live with the child's biological father and are either married, cohabiting or partners. This is in contrast to other NFP trials, where the majority of participants have been single mothers. It is interesting to consider the high numbers of fathers in the programme in more detail. Insufficient quantitative data have so far been collected in the programme. This will be considered further in the final report.

Amongst the qualitative interviews, there were four participants who lived with their partner. We conducted three interviews with both the participant and the partner present, and three interviews concerning the involvement of the partner with one participant without the partner being present. When asked about their partner's involvement, the participant said that it is she who meets the family nurse and that the partner was involved a couple of times when he was on leave after the birth. The reason he is not involved more often is that the other meetings take place when he is at work. The participant tends to pass on the information she receives from the family nurse and to read printed informational together with their partner, so that they both learn the same things. The participant believes that the partner is interested in the NFP care delivery.

> *"[The partner] had fourteen days' leave after the birth, and then [the family nurse] came to our house while he was at still at home. I always receive brochures from [the family nurse], and we then sit down and read them together afterwards, and talk about it at home. In a way, it's a bit more my chat than my partner's. But he probably feels he has a stake in it too, because he asks 'how did it go with [the family nurse] today?', 'what did you learn?', 'what did you talk about?', and things like that. So that's great. But I think he feels that it's a bit more my thing. But that he has a stake in it too".* Participant 2

Some partners have had the opportunity to be involved in most of the care delivery provided by the family nurse because they are not currently working. They also give the impression that they have a strong desire to learn, and that they also have many questions about the pregnancy and the impending

birth and post-natal period.

> *"At the beginning, I was there every time, because I was on leave from work at the time, more recently it has been... I try every time of course, but if I can't make it sometimes, then she's on her own. But there aren't many times when I haven't been there. Two or three times, maybe. I think it's very nice. I have a lot of questions and things. It's been quite reassuring to have her there to answer our questions".* Partner, Participant 4

The partner of Participant 6 is sometimes present when the family nurse is visiting, but it is not planned and tends to happen more often if the family nurse arrives late in the day.

> *"The first time I met [the family nurse] was the first day of my paternity leave, just after the birth... when I was around when she was here. But she's been here many times when I've come straight home from work, so I've been involved a bit then".* Partner, Participant 6

For Participant 6, it is natural to include her partner in the NFP visits, and she wants to share it.

> *"Sometimes I repeat what I have learned because I want to make sure he is aware of everything that has been said too (laughs), new things, I think it makes him like another friend around the house. [speaks to partner]. You listen and answer of course, and ask any questions you might have, but I don't think you think 'oh no, she's here, we'd better get our act together', or rather, you do exactly what you normally do when you get home.* Participant 6

> *"I think it's almost like it's me who is more concerned that [my partner] hears everything that is said. I want to share it with someone; I don't know. It's our baby after all.* Participant 6

There appears to be different levels of stakeholding in the programme amongst the partners. For some, it is a matter of course that they want to attend the meetings with a family nurse. Other participants do not see it as being relevant to them. It is not clear whether this is because these partners are working and unable to attend during working hours. It may be that the partners who take part often are not in employment and are therefore able to attend every meeting. Many of the participants stated they would like their partner to learn the same things as they do and that they go through the written information that the family nurse gives them after the meetings. The partners do not state that the family nurse is an important source of support for them in the same way.

The relationship within the couple is an important issue for many of the participants, even when the partner is present for the home visits. In the case of Participant 7 and her partner, they have often attended the meetings with the family nurse together. The relationship is often one of the topics to be discussed during visits, and the family nurse helps the partners to communicate and speak out about challenges that they are facing in their relationship, changes in their life situation and how they want to organise their lives when the baby arrives.

> *"The best thing about taking part is that we get to talk things right through with each other, because it's something we don't do otherwise. There are topics between us, and about the baby in a way. We don't generally talk about it or discuss what we are going to do and things like that. So it's good when [the family nurse] visits us, because then it's just about that. What we're going to do, rather than the advice or opinions of our families. Then it's just our opinions and what we want to do, and I think that's great.* Participant 7

For Participant 7, a family nurse becomes a source of support concerning communication with her partner, who takes information more seriously when it comes from a family nurse rather than from her.

> Participant 7: *"I've noticed that very often men don't believe in such things. So it's good for another person to come and explain everything, because then it's not like 'I don't believe you'. Then he gets to hear it from someone else too".*
>
> Partner: *"Yes, but I don't know. It's not that easy to be aware of it anyway. Sometimes, I think she tends to exaggerate certain things. Especially if I say to her; 'Relax, sit down, take it easy'. And she doesn't listen, so I'm kind of thinking: is she really as tired as she claims?".* Partner and Participant 7

Some of the family nurses stated that they have found it can be difficult if the partner wants to be present for every visit. This is partly because the partner can sometimes take up a lot of space, leaving less time to talk about the mother and baby. However, another factor is that there are some topics, particularly domestic violence, that can be difficult to address. As a result, it can become problematic if the partner is present during visits too often. The family nurses have not identified a lack of participation on the part of the partner as a problem.

7.1 Summary of the partner's inclusion and experience of the programme

It is not possible to make any generalisations based on the limited number of qualitative interviews. Nevertheless, we can identify some trends which may be interesting to explore further in the quantitative data. For example, it seems that the partner takes part either very often, or very rarely. The involvement of the partner depends on their employment status, with the result that working fathers tend to be less involved in the programme. Participants stated that they often share what they have learned via the programme with their partner, so that they have the same level of knowledge when they care for their baby. However, it seems that it is the participant who meets the family nurse and builds up a relationship, while the partner tends to be less involved. It would be interesting to examine whether the presence of the partner affects the content of visits, for example whether support with a partner results in a focus on different topics compared with visits without the partner present. It will also be of interest to ascertain whether the fathers take part more often and are more positive towards the programme when the families enter the toddler phase.

8 Summary conclusions

8.1Similarities and differences between the Norwegian pilot and pilots in other countries

The adaptations that have been made to adjust the inclusion criteria to Norwegian conditions appear to be effective (see Section 5.1). The decision not to apply an age limit means that older participants are recruited who still have multiple vulnerability factors. One challenge that can be difficult to adapt is the timing of inclusion in the programme, where 60 percent of the participants are to be included before gestation week 16. The majority have been included sometime between weeks 14 and 25. Since women have limited appointments with their Maternity and Child Health Care Centre prior to week 16, it will be up to the other front-line services to determine whether the participants should be included this early.

It is worth noting that NFP pilots in different countries vary in terms of target group and inclusion criteria. Certain NFP inclusion criteria are inflexible and cannot be modified: participants must be a pregnant with their first child, and have no plans to move out of the NFP site for more than three months. The participants must not be planning to give the baby up for adoption. Participation is voluntary and no one can be forced or ordered to take part. All the NFP trials apply a limit as regards how far into their pregnancy participants can have progressed by the time they are recruited, but there is some variation in this regard. In the initial US trials, it was stated that most participants should be recruited by 15 weeks' gestation and by no later than week 26 (Olds et al. 2002). In the English pilot, it was stated that most mothers should be recruited by week 16, while the upper limit is set to 24 weeks (Robling et al. 2016). In the Dutch pilot, they used both week 26 and week 28 as a limit for admission to the programme (Mejdoubi et al. 2011).

Other inclusion criteria are flexible. In the United States, England and Scotland, the target group was selected by looking at sites and/or age. In the Elmira study, the target group was young women pregnant with their first child, under 19 years of age, in a geographically delimited and deprived neighbourhood, where the mothers were either single parents and/or at risk from socio-economic challenges. The majority of the participants were African-American, and the geographical delimitation meant that, for a certain period of time, almost all primiparous women in the financially vulnerable group of inhabitants in the trial site were included (Olds et al. 2002). In the English FNP project, the target group was all primiparous women under 19 years of age within the project sites, with the competence to give their informed consent and basic English skills (Robling et al. 2016). In the Dutch VoorZorg programme, recruitment was not linked to a specific deprived neighbourhood, as in the United States and Canada. This is because potential participants could not necessarily be delimited geographically and demographically, but instead had to be assessed based on individual evaluations of vulnerability, using a two-stage model for inclusion (Mejdoubi et al. 2011).

8.2 Recruitment of participants

The recruitment and inclusion process is based on a set of criteria in a two-stage model. Amongst the teams, this method of including participants appears to be effective. They consider the model to be

labour-intensive, because it requires them to liaise closely with the front-line services which refer the participants to the programme. This part of the process ran more smoothly in the pilot once the front-line services had gained experience of who was eligible for the target group. During the screening interviews, the family nurses meet the participants and assess their challenges and vulnerabilities. In this regard, the family nurses adhere to the criteria, but believe that over time they have built up experience and developed a "gut feeling" as regards who the programme is appropriate for.

In both teams, particularly the Oslo site team, some mis-recruitment was found to have occurred during the start-up phase. This is often the case in pilots and it is common to use a broad range of inclusion criteria during this phase. In some cases, mis-recruitment resulted in participants possessing so many resources that they would have been able to access other welfare services. In other cases, participants with cognitive deficits are unable to take advantage of the programme's care delivery. Mis-recruitment can provide valuable experience as regards both who the programme is suitable for and who it is not suitable for.

8.3 The Norwegian sample

The Norwegian participants differ considerably from those in the previous pilot sites. The mean age is higher and they have fewer vulnerability factors than in previous pilots. Nevertheless, more participants stated that they are experiencing moderate to severe mental health difficulties. In the German NFP pilot, it was found that those with the most risk factors left the programme (low age and low socio-economic status) (Jungmanna et al., 2015). This was also the case in the US pilot. Because the Norwegian participants have fewer vulnerability factors, there may be a lower rate of attrition in Norway than in other pilot sites.

There are also significant differences between the two test sites of Oslo and Rogaland. In Rogaland, there are more young first-time mothers taking part with low educational attainment, as well as fewer in employment. In Oslo, there are more older first-time mothers with higher educational attainment who are working, but there are also more participants who stated that they are experiencing mental health problems, are on sick-leave or receiving work assessment allowance.

There may be a number of reasons why the sample differed between the two pilot sites. For example, the sites represent different demographic populations (see Interim Report 1), and Rogaland has more extensive health services (see Interim Report 1), which made it easier to recruit participants generally and possibly also to include more vulnerable participants. The various characteristics of the samples may impact on how the intervention works. For example, the mean age in most NFP pilots was significantly lower, so we do not know whether the intervention will be as effective amongst older primiparae.

The Norwegian participants are older, more are in employment and more are in an established relationship. They also have fewer vulnerability factors than those in the pilots conducted in other countries. There is therefore a dilemma as to whether the programme is having a positive effect, or whether these families and their children would have coped relatively well in their interaction with the "standard" Norwegian services. It will therefore be important to conduct an impact evaluation of the programme in Norway. However, even at this stage, there is some evidence from the statements and

analyses in this interim report to suggest that more of the participants are in considerable need of, and greatly benefit from, care delivery under the Norwegian NFP programme. For example, the teams have noted that care proceedings may have been prevented in two situations. Amongst the participants interviewed, it is clear that the care delivery by the family nurses is both different from all other forms of support that they received and very valuable as regards mastery (self-efficacy) and parenting skills.

8.4 Delays in recruitment

The Norwegian NFP pilot had substantial delays in recruitment. Recruitment of 150 participants was reached about a year behind schedule, in September 2018. There are many reasons why recruitment was delayed. There are major differences in the recruitment rate in Rogaland and Oslo. As we discussed in Interim Report 1, this is probably linked to the fact that the birth rate in the three Rogaland municipalities is almost twice that in the two urban districts of Oslo. It may also be the case that effective inter-agency cooperation in the Rogaland municipalities has served to facilitate recruitment.

Delays in recruitment will result in delays to the project and the ongoing Phase 2 of the programme. If the last participant is recruited in December 2018 in gestation week 12, this participant will not complete the programme until June 2021.

8.5 Workloads for family nurses – implications

The family nurses stated that they find they have a high workload. The pilot entails a lot of additional work, as well as training concerning NFP and programmes such as Pipe, Marte Meo and NBO. This may cause the workload to be higher during the pilot than if the programme were to be continued in an operational phase, because it has taken a long time both to establish inter-agency cooperation and to build up the structure and organisation of the Norwegian NFP offices. The training provided concerning NFP is considered to be very important, and many of the family nurses find that NFP provides them with sufficient tools. Pipe and NBO are also useful, but they find it difficult to find sufficient time to carry out a Marte Meo follow-up adequately. The family nurses who have joined the programme along the way stated that they find it easier to familiarise themselves with the programme because they can get a lot of training and support from their colleagues. Those who were involved from the beginning have few such experiences to build on, and it has been more demanding for these team members to familiarise themselves with NFP.

The family nurses in the pilot have a high level of expertise, many years of professional experience and a high level of personal aptitude for the position. At the time of start-up, they were very enthusiastic about the programme. During the pilot, this enthusiasm has inevitably declined somewhat, and many of the family nurses have found the workload substantial because of the time spent travelling and the fact that participants have different needs as regards support, and because of the time spent on training/meetings, collaboration and meetings with other agencies. The actual care delivery that is provided to the participants is not seen as a burden, but it is the other tasks that can leave little time for sessions with the participants. In the longer term, the enthusiasm of the family nurses for NFP will cease to outweigh the challenges linked to the working method adopted for the Norwegian NFP

programme.

There is a risk that a high workload will render it impossible to retain the family nurses. The programme is particularly vulnerable to staff churn, both because they will result in the pilot losing valuable expertise, and because relationship-based programme delivery means that replacements could lead to a high attrition rate amongst the participants.

In a qualitative study of attrition rates in one NFP pilot, many mothers stated that they withdrew from programme after they were assigned a new family nurse (Holland et al., 2014). There may be a number of reasons for this, e.g. that they did not like the new family nurse, but it is also possible that they could not face having to start over in a partnership with a new family nurse in case she left as well. Family nurses who took over the participants of colleagues who left also reported that the relationship with these participants differed from the relationships they had with those they had been with throughout.

There has been a relatively high replacement rate amongst family nurses during the Norwegian pilot, and it appears that this has already resulted in some attrition amongst the participants. The overall scale of this in the pilot is not yet known.

8.6 Next steps in the programme pilot?

The Norwegian pilot is entering a vulnerable phase. Once the final recruitments have been recruited, referrals from front line services will be turned away. The effort that has been invested in amassing insight and experience within the front line could be wasted. No concrete decisions have so far been made as regards continuation beyond Phase 2, but the goal is to carry out an RCT. NFP International also requires us to carry out an RCT if there is a desire to continue using NFP. An RCT would result in an increase in the number of trial sites and would probably also prove relatively costly. The plans for continuation in the form of a possible RCT (Phase 3) will be one of the focal considerations going forward, and for the next phase in the Norwegian pilot.

It is a considerable burden for the project participants that they do not know whether the effort they are putting in will be continued. Many of the family nurses are also on leave from their original posts in order to take part in the pilot. This leave is due to end soon and they will have to decide whether they wish to continue in the project and resign from their permanent positions or end their involvement in the pilot.

8.7 Opportunities for influence/impact

The present interim report only considers the period from autumn 2017 to spring 2018, and the process once the child is slightly older remains to be addressed. The Norwegian NFP programme thus far has not been based on a randomised, controlled design, but the qualitative and quantitative data reviewed here offer certain indications that:

- Although the inclusion criteria are different in Norway, the vast majority of participants who have been recruited are vulnerable and appear to be in need of this programme, based on

both the qualitative and the quantitative data.

- There is little overlap between the programme and standard services or competing interventions.
- The NFP programme is seen as valuable amongst the participants, and unlike any other service they receive.
- The quality of the NFP programme is recognised by family nurses and the other specialist entities involved.
- Both participants and the family nurses consider the programme to be vital to the development of parenting skills and other aspects of life, such as relationships, housing and mental health.

Based on our qualitative data concerning participating families, as well as the experiences gained by the family nurses, there can be little doubt that the programme ensures that appropriate and support are provided to the enrolled families during a vulnerable and challenging period of their lives. The intervention appears to be accepted and valued by the participants. Moreover, the entities involved, represented by participants on the local NFP boards, the Norwegian Labour and Welfare Administration (NAV) and the Maternity and Child Health Care Centre service refer to NFP as a service for which there is considerable demand. Maternity and Child Health Care Centre services in some municipalities/districts stated that there is some overlap in that the participants are still accessing municipal services, and that NFP does little to relieve the other. The quantitative data also indicate that the programme is becoming accepted and understood, and that it fosters engagement amongst the participants. Thus, it would appear that the programme is compatible with and accepted in the Norwegian context at a number of levels. It remains to be seen whether the positive reception continues once the families enter the toddler phase, what happens to the workload of family nurses when they have larger caseloads and less time to provide support than during the start-up phase, and whether the positive experiences from the real-time evaluation of the pilot yield positive effects for any future randomised, controlled trials.

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9 Appendices

9.1 Appendix 1. Distribution of inclusion criteria in Oslo and Rogaland

Table: Distribution of inclusion criteria amongst the participants in Oslo (n = 61) and Rogaland (n = 72)

Inclusion criteria	Team Oslo		Team Rogaland		Total	
	n	%	n	%	n	%
Inclusion criteria						
Violence/abuse	15	25%	20	28%	35	26%
Challenges during own childhood	37	61%	46	64%	83	62%
Little support/frequent conflict	29	48%	22	31%	51	38%
Mental health difficulties	35	57%	42	58%	77	58%
Not in work, etc.	16	26%	30	42%	46	35%
Long-term low income	15	25%	15	21%	30	23%
Single parent, etc.	11	18%	16	22%	27	20%
Tobacco/drugs	5	8%	14	19%	19	14%
Number of inclusion criteria						
None	1	2%	2	3%	3	2%
1-2	33	54%	29	40%	62	47%
3-4	19	31%	33	46%	52	39%
5+	8	13%	8	11%	16	12%
Total number of participants	61	100%	72	100%	133	100%
Mean	2.67		2.85		2.77	
Standard deviation	1.70		1.38		1.53	

9.2 Appendix 2. Goals for programme delivery

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%

9.3 Appendix 3. Number of home visits conducted per family

Table: Number of home visits conducted per family by May 2018

Number of visits	Team Oslo		Team Rogaland		Total	
	n	%	n	%	n	%
1	60	100%	66	100%	126	100%
2	60	100%	66	100%	126	100%
3	57	95%	64	97%	121	96%
4	54	90%	63	95%	117	93%
5	51	85%	56	85%	107	85%
6	44	73%	45	68%	89	71%
7	40	67%	40	61%	80	63%
8	36	60%	33	50%	69	55%
9	29	48%	28	42%	57	45%
10	22	37%	23	35%	45	36%
11	14	23%	13	20%	27	21%
12	10	17%	11	17%	21	17%
13	7	12%	9	14%	16	13%
14	6	10%	4	6%	10	8%
15	4	7%	3	5%	7	6%
16	2	3%	3	5%	5	4%
17	2	3%	2	3%	4	3%
18	2	3%	1	2%	3	2%
19	1	2%	1	2%	2	2%
20	1	2%	1	2%	2	2%
21	0	0%	1	2%	1	1%
22	0	0%	1	2%	1	1%
23	0	0%	1	2%	1	1%
24	0	0%	1	2%	1	1%
25	0	0%	1	2%	1	1%
26	0	0%	1	2%	1	1%
Number	502		538		1040	

*n=61 recruited in Oslo; n=72 recruited in Rogaland_

9.4 Appendix 4. Overview of instruments

Overview of the instruments used to measure mental health, self-mastery (self-efficacy) and loneliness

Generalised anxiety measured using the "Generalized Anxiety Disorder scale" (GAD-7)
Feeling nervous, anxious, or on edge
Not being able to stop or control worrying
Worried too much about different things
Trouble relaxing
Being so restless that it's hard to sit still
Becoming easily annoyed or irritable
Feeling afraid as if something awful might happen

Symptoms of depression measured using the "Patient Health Questionnaire" (PHQ-9)
Little interest or pleasure in doing things
Feeling down, depressed, or hopeless
Trouble falling or staying asleep, or sleeping too much
Feeling tired or having little energy
Poor appetite or overeating
Feeling bad about yourself or that you are a failure or have let yourself or your family down
Trouble concentrating on things, such as reading the newspaper or watching television
Moving or speaking so slowly that other people could have noticed. Or the opposite being so fidgety or restless that you have been moving around a lot more than usual
Thoughts that you would be better off dead, or of hurting yourself

Mastery measured using the "Self-Mastery Scale"
I have little control over the things that happen to me.
There is really no way I can solve some of the problems I have.
There is little I can do to change many of the important things in my life.
I often feel helpless in dealing with the problems of life
Sometimes I feel that I'm being pushed around in life
What happens to me in the future mostly depends on me. I can do just about anything I really set my mind to.

Loneliness/Isolation
How often do you feel that you do not have a single friend to support you? How often do you feel excluded?
How often do you feel isolated from other people?

9.5 Appendix 5. Interview topic

Interview topic, Participants

About joining the Norwegian NFP programme
Tell me a bit about yourself – age, education/job, interests?
Who first told you about the Norwegian NFP programme and recommended you to take part in the project?
How far advanced are you in your pregnancy/how old is your child?
Roughly how many visits have you had from the family nurse?
Why did you want to take part in the NFP programme?

Your experiences of the programme

What happens when the family nurse visits you? Please describe a typical visit if you can!
What do you think is good about participating in the project? Is there anything you do not like about it?
What do you think your visits are helping you with? For example, breastfeeding, relationship with your partner, information on baby and infant care, social support?
Is there anything you think you need more help with, which NFP does not provide?
How would it have been different had you not had visits from the family nurse?

Visits from your family nurse

Are the visits too frequent/not frequent enough?
How long does a visit normally last?
Are visits frequently postponed or cancelled? By whom?
Is there anything you can think of which could make you leave the programme?

NFP partners (where applicable)

What does the father/co-mother think about taking part in NFP? Is he/she usually present at family nurse visits?
Does the father/co-mother feel that he/she is being sufficiently involved in the programme?
Are there important people in your network that you wish were more involved in NFP, such as close friends or family?
Finally: Do you have any experiences that you have not been asked about, which you think it is important for us to be made aware of?

Interview topics, Family nurses

Workload - What is the workload like? Duration of the work, timing of the work. Are there any unforeseen burdens/benefits from being a family nurse?
Inter-agency cooperation – Which services are you cooperating with? How does the cooperation work? is inter-agency cooperation/communication a substantial element of your work as an NFP family nurse?
Form of working – Is this way of working in a Norwegian context effective for you as a health visitor/midwife?
Cooperation with, and support from, the regional centres for child and adolescent mental health and child welfare (RBUP) – strengths and challenges in cooperation with RBUP?
Teamwork –is the teamwork between family nurses effective? Is the team structure important to the work?
Follow-up by the team leader - How effective is the team leader supervision?
Recruitment - How is recruitment going? What procedures have you used?
Participants – Who are the participants? Various problems? Do some need help more than others?
Training – What are your experiences of the training modules you have completed? Sufficient training? Enough time?
What do you spend most time on with the participants? What are the main problems you address? Are any areas of the programme more relevant? Variation among the participants?
What does the programme contribute? – After almost two years in the NFP programme, what does the programme offer which other health services do not?
A year since the last interview – What have you learned, key learnings?

Interview topics, NFP Board

Now that the NFP team has been visiting for 18 months, what are your thoughts about the project so far?
The need in the municipality – does it meet a need?
What is your assessment of your target group? Did you find the target group as envisaged? Are there any groups that NFP does not reach?

Options for continuation? Desire for continuation? Do you have specific plans for you to continue NFP?
The family nurse as a family coordinator of other welfare services – demonstrates an unmet need?
The organisational model that the SINTEF report proposes? Viability of this?
Extension due to delayed recruitment? Is it acceptable to you that the project has been extended beyond the scheduled date?
Pending an impact metric – what evidence would you need in order to implement NFP proper?
Is there support for the project in the municipalities? Variation?
How do you think the partnership with the regional centres for child and adolescent mental health and child welfare (RBUP) and the Norwegian Directorate for Children, Youth and Family Affairs (Bufdir) is working out?
How is the cooperation between the three municipalities working out?
Is NFP the best solution to their challenges?

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