Family Nurse Partnership Insights (COVID-19) Evaluation Report - Initial Findings

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Family Nurse Partnership Insights (COVID-19) Evaluation Report

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Abbreviations and Glossary

Abbreviation / Term	Definition
ASQ	Ages and Stages Questionnaire: A tool, consisting of 30 items, used to assess the child's developmental progress (ASQ-3, 2021)
COVID-19	An infectious disease caused by a novel strain of Coronavirus, SARS-CoV-2 (World Health Organisation, 2020).
DANCE	A tool used to assess the interactions between the caregiver and the child (Ormston & McConville, 2012)
FaceTime	A video and audio communication platform developed by Apple.
FNP	Family Nurse Partnership
HPI-C and HPI-A	Health Plan Indicator (Core or Additional)
IPV	Intimate Partner Violence: physical, emotional, sexual abuse and controlling behaviours by an intimate partner (World Health Organisation, 2012)
Logic model	Summarised theory of how an intervention works, often represented as a diagram (Rogers, 2008).
Near Me	National branding name in Scotland for the video consultation services using the Attend Anywhere platform (Greenhalgh & Wherton, 2020)
NHS Attend Anywhere	Video call system and service designed to support remote health and care consultations (Greenhalgh & Wherton, 2020)
NHS Health Board	NHS Scotland has 14 regional Health Boards (11 mainland and 3 island). They are responsible for the protection and improvement of their population's health, and for the delivery of frontline healthcare services.
PBPP	Public Benefit and Privacy Panel for Health and Social Care
PIPE	The Partners In Parenting Education: An interactive educational tool that aims to help clients understand their child's emotional needs, support relationship building, and encourage play as a means of child development and learning (Scottish Government, 2019).
Programme theory	Refers to using a variety of methods to develop casual models, that connect programme inputs and activities to a chain of intended or observed outcomes (Rogers, 2008).
Remote delivery	A service that is delivered at a distance via telecommunication tools
SMS	Short Message Service/Text message
Telehealth	Telehealth refers to the remote provision of health care using a variety of telecommunication tools, including but not limited to, telephones, smartphones, tablets, computers and mobile wireless devices, with or without video functionality (Doresey and Topol, 2016).

Theory of change	A tool used as a method of viewing programme assumptions, the processes used, and the expected outcomes. For Programme evaluations, the theory is used to assess a programme's effectiveness for clients or stakeholders at a particular time. It is often used for the purposes of quality improvement (Ashton, 2017).
VSee	A video group chat and screen-sharing platform intended for uses such as telemedicine and team working.
WhatsApp	A communications application designed for people to share messages, photos/ videos, documents, locations and voice notes with one another.
Lockdown	A term commonly used to refer to a period of national or regional level restrictions put in place by government authorities to limit the spread of COVID-19.
PPE	Personal protective equipment (e.g. masks, gloves and aprons)

Executive Summary

Family Nurse Partnership (FNP) is an intensive, one-to-one home visiting programme delivered by specially trained nurses, which is designed to support young first-time mothers from early pregnancy up until the child's second birthday. The programme has 3 main aims, to improve maternal health, to improve child development and to improve the economic self-sufficiency of the family. In Scotland, FNP is usually offered to young mothers aged 19 years and under, however this age-range is expanded to some older mothers, up to 24-year-olds in some Health Board areas.

The COVID-19 pandemic has brought a renewed focus on the specific vulnerability of the client group who receive FNP and it is imperative to recognise the essential role of FNP in response to the pandemic. It is vital to gain a thorough understanding around the delivery of the FNP programme and the use of telehealth in this context and better characterise the implications of these interim changes. This evaluation aims to explore how FNP was delivered, following the COIVD-19 outbreak in March 2020 and series of lockdowns up until the end of data collection in March 2021 in terms of the service delivery, mode of delivery, dosage (number of visits clients receive), materials and resources. It intends to highlight how this current mode of delivery has impacted nurses, clients (women on the programme) and partnership working. It will also examine the types of challenges facing the service during this significant period of global uncertainty, as well as key considerations for the future delivery of FNP.

To address these aims, one-to-one interviews (n=23), focus groups (n=8) and a national survey were conducted with family nurses (n=90) responsible for delivering the programme in combination with one-to-one interviews with clients (n=15) receiving the programme during COVID-19.

During COVID-19 pandemic, modes of FNP service delivery varied from standard home visiting to phone calls, SMS text messaging, emails, video calls and other encounters such as face-to-face outdoor walks with clients. Having a range of communication options at this time was highly beneficial for family nurses. In spite of the options available to family nurses, all surveyed staff (100%) reported delivering home visits during the COVID-19 pandemic. The ability to continue to offer home visits during the pandemic was crucially important and allowed families and their children to receive timely and essential support. However, few clients were less comfortable about receiving home visits and did not want to put themselves, their child or family at risk of COVID-19 transmission.

The FNP service provided essential and invaluable support to many clients and their families during an ongoing time of crisis. Clients overwhelmingly acknowledged this support and felt their family nurses provided stability, advice and care for them and their children. This was true for all clients but particularly, for clients who became socially isolated during the COVID-19 pandemic. Clients perceived their relationship with family nurses as valued and highly personal, often describing this as trusting and professional friendships.

Family nurses felt well equipped and supported to conduct their work remotely and were positive about the intuitive nature of the software used to undertake video calls. Having used telephone calls and SMS messaging prior to the pandemic, undertaking contact with clients through these methods was also viewed as routine by family nurses. Family nurses reported that opportunities provided by different telehealth modes helped them achieve dosage (number of visits clients receive) with clients who were busy with work or education commitments. However, it is apparent that both family nurses and clients found the rapid move to remote delivery of the programme challenging and many were not in favour of a solely remote delivery model. Many family nurses felt strongly that FNP was developed as a home visiting programme and its success is largely dependent on it being delivered as such. Relationship building, which is a key component of FNP, was thought to be negatively impacted by telehealth especially for newer clients. Family nurses reported that it took longer and required more effort to establish a strong therapeutic relationship with new clients while working remotely. Nevertheless, clients recruited during the pandemic felt they were still able to establish a good relationship with their nurses and were happy to receive the programme regardless of delivery mode.

Whilst clients felt supported by their family nurses, many clients were uncomfortable with video calls and felt anxious or self-conscious on camera. The use of video calls was also problematic at different stages of the programme particularly in toddlerhood while clients were trying to engage with their family nurse and look after a small child. For many clients they preferred the use of telephone calls rather than video, where they could use the speaker and also look after their child at the same time. However, this limited the options for the family nurses to view the home environment and the child, a key element for child protection. Family nurses felt that remotely assessing the home environment was extremely difficult or impossible in some cases. For newer clients and more vulnerable clients, such as those with child protection or social work involvement and mental health challenges, there were less opportunities to more widely observe and fully assess any potential needs, including family dynamics, body language, smells and potential hazards.

It was felt vulnerable clients were more at risk of becoming disengaged or feeling unsupported from telehealth contacts. Recognising this, family nurses used their clinical judgement and supervision support to assess who would most benefit from a home visit rather than virtual, and family nurses visited clients during the pandemic where there was a perceived need. There were concerns among family nurses about the impact of digital literacy and digital exclusion and potential inequalities emerging in the access to the service for many of their clients, especially those most vulnerable, such as those with child protection or social work involvement and mental health challenges.

Partnership working was impacted by the COVID-19 pandemic. FNP is a holistic service and as such is able to identify where client would benefit from additional service input alongside the provision of the programme. Some services such as housing, benefits and mental health that FNP usually refer to were reported by family nurses to have limited operation during the pandemic particularly face to face contact. This coupled

with elements of digital exclusion meant that family nurses felt they had to take on a broader role to ensure that clients were supported. As such, it was unsurprising that many clients described their family nurse as being their first point of call when they required support for themselves or their child.

While it is acknowledged that there were challenges to delivering FNP remotely and using telehealth, both family nurses and clients expressed the desire that telehealth can play a role in future delivery of the FNP. Overall, there is a real sense that the FNP programme provides an essential source of support for many young women and their children. The service was highly valued by clients during a time of uncertainty and crisis, which is evidenced by sustained levels of client recruitment, retention and engagement throughout the last 12 months.

1 Introduction

Family Nurse Partnership (FNP) is a licensed-based home visiting programme that is designed to support young first-time mothers and their children. The FNP programme is delivered by specially trained nurses, in an intensive, one-to-one, home visiting format (Olds, 2006).

The FNP programme was originally developed in the United States through a comprehensive body of research that incorporated three randomised trials (Olds et al., 1986a; Olds et al., 1986b; Kitzman et al., 1997; Olds et al., 2002). Following its inception and implementation in the US, FNP has been further trialled, implemented, and adapted internationally. In the UK, FNP programme has been adopted by three of the four UK nations (excluding Wales) and operates at a national level within each of these systems. FNP was first implemented in Scotland in 2010 and is currently delivered in the 11 mainland Scottish Health Boards. At present, there are also considerations to expand delivery to the three Scottish island Health Boards. Evidence suggests that FNP has integrated well into the Scottish context following its first introduction in 2010 (Scottish Government, 2019).

Evidence shows that young mothers and their babies are at greater risk of experiencing negative health and social outcomes compared with older mothers (Buchanan, 2020). Poorer mental health is also more prevalent amongst young mothers, including increased rates of stress, anxiety, and depression (Raskin et al., 2016). Young mothers and their children are more likely to experience social adversity, stigmatisation and disengagement with education or employment (Wiggins et al., 2005)

FNP is delivered as an intensive home visiting programme, underpinned by a core model, that aims to improve a range of outcomes for first-time teenage mothers and their children. In Scotland, FNP is usually offered to young mothers aged 19 years and under, however this age-range is expanded to some 20 - 24-year-olds with additional vulnerabilities in some Health Board areas. Based on the original model, participants receive regular structured home visits from early pregnancy up until the child's second birthday.

1.1 Theory of Change

Establishing a successful therapeutic relationship between a mother and a family nurse is regarded as a key mechanism to trigger positive changes that can lead to a variety of improved outcomes. The therapeutic relationships formed between mothers' and their family nurses draw on core theoretical principles relating to human ecology, self-efficacy, and attachment. In conjunction with professional training, the support and supervision of family nurses and the availability of tools and resources (Wimbush et al., 2015), therapeutic relationships are harnessed to improve pregnancy and birth-related outcomes, child health and development, parenting practices, health behaviours and the promotion of economic self-sufficiency amongst mothers (Olds, 2003).

Figure 1 shows a previously developed, simplified theory of change model, for FNP delivery in Scotland. A comprehensive programme overview and logic model can be found in Appendix 1.

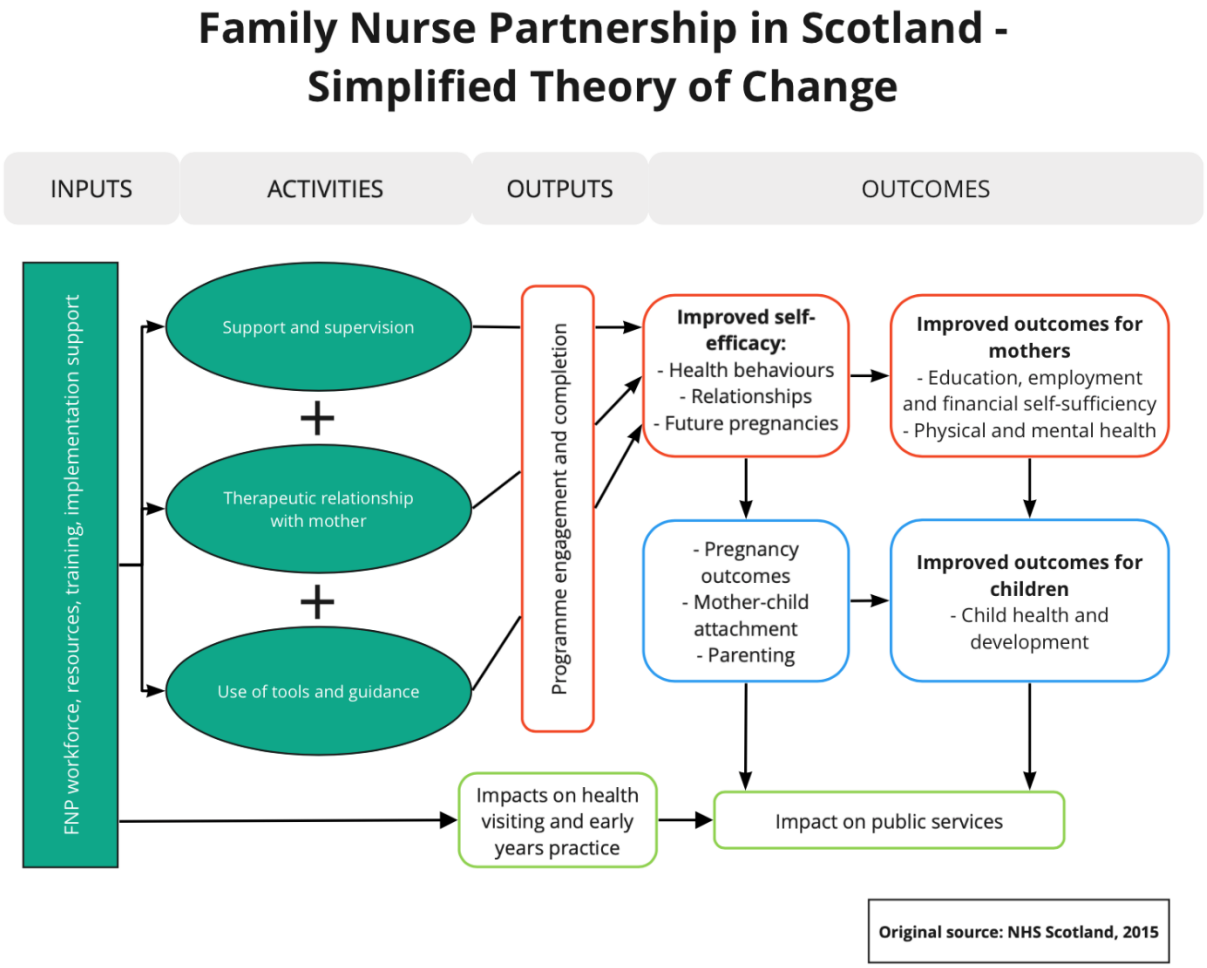

Figure 1. Simplified Theory of Change for FNP in Scotland. Source: NHS Scotland (2015). Evaluability assessment of the Family Nurse Partnership in Scotland.

During the early phase of the COVID-19 outbreak, guidance published by the Scottish Government in April 2020 stated that the FNP programme “provides an essential service to the clients and children enrolled on the programme. Families will continue to need the support of FNP and, in fact, will likely need their connection to their FNP nurse more than ever” (Scottish Government, 2021). Subsequently, during the COVID-19 pandemic, disproportionate impacts and adversity have been witnessed throughout the Scottish society. In many cases, this has caused an exacerbation of challenges and inequalities already faced by vulnerable and minority populations (Blundell et al., 2020).

Additionally, a recent UK wide report highlighting the impact of the COVID-19 pandemic and the first UK lockdown on children aged 0-2 years old, identified that while young children were unlikely to be directly affected by COVID-19, they were more susceptible to a spectrum of hidden harms (Reed and Parish, 2020). Some of these hidden harms included:

- *Maternal deprivation* – deriving from poverty, financial insecurity and income loss and food insecurity which were also associated with factors such as overcrowded living conditions, digital exclusion and an increasing reliance on food banks.
- *Social isolation* – restrictions preventing children from having opportunities to interact with others and experience different environments that can enhance child development.
- *Indirect health risks* – potentially occurring as a result of limited healthcare and support services, parental reluctance to access these, delayed identification of concerns and treatment and increased sedentary behaviour.
- *Poor parental mental health* – potentially impacting pre-birth and child development as well as posing a risk to responsive parenting.
- *Traumatic experiences* – as a result of overcrowded or altered home environments and a reduction in support services.
- *Invisibility to Professionals* – a notable concern whereby children are not being seen or are being missed by various professionals.

Hidden harms such as these were thought to be broad, significant and far reaching for families in the UK with the severity of impacts being influenced by a child's socioeconomic background. A recent study identified that young mothers in the UK were less likely to engage with digital health and online support sources, relying instead on trusted interpersonal sources and community-based 'bridges' to provide information and support that more adequately addressed the complexity of their needs (Buchanan, 2020).

1.2 FNP delivery during COVID-19 pandemic

The coronavirus outbreak placed a rapid and enhanced focus on telehealth as healthcare services moved rapidly to implement remote delivery systems in light of infection control measures. A national clinical guidance was produced by the Scottish Government to guide nursing and allied health professionals and community health staff during the COVID-19 pandemic (Scottish Government, 2020). Fundamental changes took place to ensure the provision of continuous care and essential services where possible. In terms of FNP, this involved a predominant shift to home working and remote service delivery using technology such as telephone calls, SMS messaging and video calls via platforms known as Attend Anywhere or NHS Near Me. This enabled clients to maintain contact with family nurses while home visiting was provided for essential circumstances only in order to reduce COVID-19 transmission risks for clients and family nurses. Clinical judgement was exercised by family nurses in relation to home visiting, and when visits were required, there was still a move towards a proportion of visits being conducted remotely. The guidance document provided

information in relation to interventions that can be stopped, undertaken in a different way and those that should be continued, whenever possible. Family Nurses exercising the function of the named person on behalf of their Health Board were required to be available and responsive to parents to promote, support and safeguard the wellbeing of children. They were also expected to be mindful to changes of service provision by partner agencies and the potential impact of this on children and their families (Scottish Government, 2020).

Due to the essential role FNP played in response to the COVID-19 pandemic, it is vital to gain a thorough understanding from the perspectives of practitioners and service users, around the delivery of the programme and the use of telehealth in remote delivery in order to better characterise the implications of these changes as well as key consideration for the future delivery of FNP.

1.3 Research Purpose

This evaluation aims to explore how FNP is being delivered during COVID-19 pandemic (following the outbreak in March 2020 and series of lockdowns up until the end of data collection in March 2021 - see further information on this in study setting and context below) in terms of mode of delivery, dosage, materials and resources. It intends to highlight how this largely remote delivery has impacted family nurses, clients and partnership working; the types of challenges hindering the service at the moment, and what lessons can be learned for the future delivery of the programme.

Prior to the evaluation, the research team also conducted a rapid systematic review of telehealth utilisation in the context of home visiting interventions that share similarities with FNP. The findings of the rapid review were used to inform the design of the evaluation. The review is currently being prepared for publication (draft available upon request).

2 Methods

2.1 Study setting and context

The evaluation was conducted within the 11 mainland Scottish territorial Health Boards where the FNP programme is currently being delivered, these included: NHS Ayrshire & Arran, NHS Borders, NHS Dumfries & Galloway, NHS Fife, NHS Forth Valley, NHS Highland, NHS Grampian, NHS Greater Glasgow & Clyde, NHS Lanarkshire, NHS Lothian, and NHS Tayside.

Due to infection control restrictions in place at the time of the research, all data were collected remotely using telephone and digital methods.

The evaluation took place from August 2020 to March 2021 (rapid systematic review). Primary data collection (one-to-one interviews, focus groups and survey) began in January until March 2021. During data collection, participants were asked to reflect on their experiences of delivering and receiving the FNP service following the COVID-19 outbreak in March 2020 up until the point of data collection. This time period encompassed the introduction of a range of public health measures and restrictions in response to the COVID-19 outbreak. After a period of strict national lockdown, introduced from 24th March until 28th May 2020, restrictions were gradually eased in phases until regional level restrictions were implemented across Scotland on 1st November 2020. From January to April 2021 a second national lockdown was introduced. It is important to convey that participants' responses may have been influenced by their duration of enrolment (clients), employment (family nurses) and overall experiences of local and national restrictions during this time. Where possible we have indicated information about the stage clients were at when they took part in the evaluation.

2.2 Data Collection

A mixed-methods approach incorporating interviews, focus groups and a survey were used to gather primary data across all 11 Health Boards. These are detailed below in Table 1.

Method	**Group Involved**
1-1 Semi-structured interviews	- Family nurses - Clients (enrolled before or during the COVID-19 pandemic)
Focus groups	- Family nurses
Online staff survey	- Family nurses

Table 1. Overview of data collection methods.

2.2.1 Data Collection Instruments

Semi-structured qualitative topic guides and survey questions were developed using existing programme theory, key documents and literature-based findings. The tools were then refined through discussion with key stakeholders (Scottish Government and the National Clinical Lead for FNP) and testing by the research team. Please see Appendix 2 for a full list of survey questions.

2.2.2 Qualitative Interviews & Focus Groups

Family nurses were initially contacted by local team leads who distributed invitation letters and information sheets via email. Due to the research being conducted remotely, informed consent was obtained via Qualtrics using an online data form.

Clients were contacted and recruited by their family nurses. Family nurses were provided with recruitment materials and information they should share with clients in various formats (i.e., text message, email, or verbal conversation). Clients were then able to contact the research team directly by completing an online Qualtrics data form which contained a participant information sheet and informed consent form.

The online form also allowed clients the option of choosing a preferred time and day for a telephone interview as well as the ability to request a female researcher or additional support from their family nurse, if required. All clients were offered a £20 high-street e-voucher as a thank you for their participation.

All interviews and focus groups were recorded using an encrypted digital audio recorder and then transcribed verbatim. All transcripts were anonymised and pseudonymised prior to analysis.

2.2.3 Survey

Family nurses were contacted by their local team leads, who distributed the links to the Qualtrics survey and information sheet. Informed consent was received via Qualtrics using an online data form. The family nurses' participation in the survey was anonymous.

2.2.4 Data Analysis

2.2.4.1 Qualitative Data

Initial deductive coding frameworks were used to code staff and client transcripts devised using main thematic categories and sub-categories drawn from existing programme theory, literature, programme document and stakeholder discussion. The frameworks were tested independently by three members of the research team on identical transcripts to ensure adequacy and consistency. Transcripts were coded categorically and thematically using NVivo software. New codes were included following discussion with team members. A number of transcripts were periodically cross-checked and double coded by team members to further ensure consistency. No notable

disagreements in coding were identified and minor differences were resolved through discussion.

Three researchers undertook thematic analysis of the qualitative data. Emergent themes were iteratively refined and discussed by the research team (Braun and Clarke, 2006).

The qualitative data findings are represented by regional areas in the findings to maintain anonymity of participating study sites and staff. The regions are grouped as East, North and West and include the following health boards – East Region: NHS Borders, NHS Fife, NHS Lothian; North Region: NHS Grampian, NHS Highland, NHS Tayside; West Region: NHS Ayrshire & Arran, NHS Dumfries & Galloway, NHS Forth Valley, NHS Greater Glasgow & Clyde, NHS Lanarkshire.

2.2.4.2 Survey Data

Survey data has been analysed descriptively, using graphs and tables to present findings. Text field data was also analysed thematically by three researchers. Emergent themes were refined and cross-checked by team members to ensure consistency. A marked-up questionnaire can be found in Appendix 2.

Due to moderate sample sizes, all data is presented at an aggregated level across all Health Board areas in order to preserve anonymity and proportionate representation. Findings from the qualitative research and survey have been triangulated and reported based on themes or topics.

3 Ethics And Approvals

This research was approved by the School of Health in Social Science Research Ethics Committee, University of Edinburgh. Tier 1 approval was also gained from the Public Benefit and Privacy Panel for Health and Social Care (HSC-PBPP).

4 Results

4.1 Participants

In total, 31 family nurses from the 11 Health Boards areas participated in one-to-one interviews (*n=23*) and focus groups (*n=8*). Fifteen clients from 6 Health Boards participated in one-to-one interviews. Six clients were enrolled onto the programme prior to the pandemic, nine clients were enrolled following the introduction of COVID-19 restrictions. The staff survey was completed by 90 respondents providing an eligible response rate of 41%.

4.2 Response to COVID-19 Outbreak and Restrictions

Many family nurses commented that in the initial six weeks following the UK-based outbreak of COVID-19 and the onset of national lockdown restrictions brought the most uncertainty in terms of delivering the FNP service. Family nurses noted that the closure of offices and workplaces in March 2020 resulted in a sudden shift to home working for FNP nurses and that changes were implemented quickly across the service. Rapid adaptation was required to deliver FNP in line with newly introduced public health measures and restrictions while using locally available technologies and resources.

> "So I very quickly had to get my laptop, collect a pile of paperwork and head home, as we were advised to do, and it took me quite a bit of time to work out how to do remote working and get all that set up, and I just found it incredibly stressful, it was like learning a whole new job." – [Family Nurse, East]

> "It felt like overnight it was, like, that's it. You know, no home visit. We need to be really careful. It's lockdown." – [Family Nurse, North]

Throughout the pandemic, NHS Board's implemented restrictions affecting FNP service delivery based on clinical guidelines issued by the Scottish Government. Initially, under national-level lockdown restrictions, home visits were advised to be conducted only for essential visits and for extremely vulnerable clients and families, such as those with child protection or social work involvement and mental health challenges. Before undertaking home visits, family nurses recalled increased levels of decision making, largely based on their own clinical judgements as well as COVID-19 risk assessments in accordance with newly introduced clinical guidelines. As the first national lockdown lifted[1], a tiered system was introduced which allowed some Health Board areas to ease restrictions on activities such as home visiting. During periods of relaxed and regional level restrictions a number of family nurses were able to offer home visits to larger proportions of their caseload.

[1] Time period – June to December 2020

> “I suppose for us, the biggest change in terms of COVID was thinking about the, sort of, variance of the tiers and following the Scottish government guidance in terms of the amount of face-to-face visits. We were certainly much more mindful of the risk for clients, for their babies, for staff.” – [Family Nurse, West]

Family nurses described that the frequent fluctuation of guidelines impacted their ability to deliver the FNP service as intended and required significant amounts of adaptation and innovation to deliver the service to a high standard.

Family nurses described having realistic expectations about the quality and delivery of the programme during COVID-19. Family nurses felt that the service was still able to be delivered, however many family nurses emphasised the efforts they and colleagues had made in order to continue service delivery, including often going the ‘extra mile’. Across all Health Boards, family nurses recounted the efforts of their teams and colleagues in adapting quickly and efficiently from the outset of the pandemic so that clients across Scotland continued to receive a high-level of uninterrupted support from the FNP programme.

> “I’m incredibly proud of the family nurses and the work that they do. They’ve been so adaptable, so flexible, so resilient and so strong, which has been really quite incredible to watch, because they’re working in the middle of a pandemic when it’s frightening. And it’s frightening for all of us. But they wanted the clients to still have a really good service.” – [Family Nurse, West].

4.3 Modes of Service Delivery

During COVID-19, modes of FNP service delivery varied from home visiting to phone calls, SMS ‘text’ messaging, emails, video calls and other encounters such as face-to-face outdoor walks with clients. While various communication formats were suited to different forms of contact or programme delivery more than others, a key finding was that having a range of communication options was highly beneficial for family nurses.

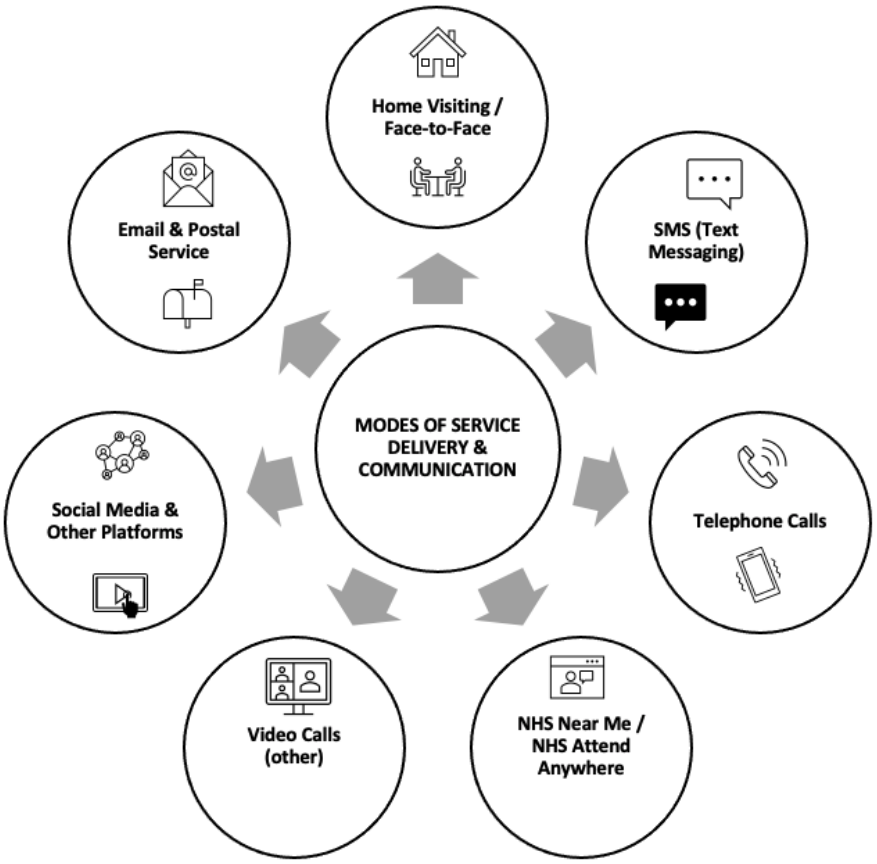

Figure 2. Overview of service delivery modes used to deliver FNP in Scotland during the COVID-19 outbreak.

Staff reported mixed frequencies of usage for various service delivery modes. This highlights that various tool combinations were adopted by family nurses and used in conjunction with one another to deliver the programme. Text messaging, telephone calls and video calls were among the most frequently used telehealth modes. See Table 2.

Mode of Service Delivery	Always	Most of the time	About half the time	Sometimes	Never
Telephone calls	5%	23%	33%	38%	1%
WhatsApp	3%	8%	3%	31%	56%
Mobile apps	0%	0%	3%	18%	79%
Attend Anywhere	1%	12%	22%	24%	40%
Near Me	1%	18%	24%	36%	21%
Video Call (other)	0%	9%	8%	18%	65%
Text messaging	21%	23%	11%	27%	17%
Home visits	1%	19%	34%	45%	1%

Table 2. Frequency of use of service delivery modes reported by family nurses.

Additional findings in relation to key modes of service delivery are presented in the sections below.

4.3.1 Home Visiting

Family nurses felt that the ability to continue to offer home visits during the pandemic was crucially important and allowed them to provide timely and essential support to many vulnerable and at-risk clients during this time. In addition to routine clinical judgements, family nurses had to balance multiple risk factors to determine whether visiting a family in the home was a priority.

Clients and family nurses widely perceived home visiting as their preferred format of programme delivery and the ‘gold standard’ for FNP. Home visiting was deemed to be crucial for developing strong therapeutic relationships, successfully conducting assessments, observations and core programme activities (e.g. PIPE and DANCE).

All surveyed staff (100%) reported delivering home visits during the COVID-19 outbreak. When a home visit was offered to clients, 41% of family nurses reported offers of home visits were always taken up while 51% said these were taken up most of the time. The proportion of caseloads who were offered home visits from March 2020 to March 2021 varied between family nurses, see Figure 4. Twenty-nine percent of family nurses offered home visits to 100% of their caseloads; 15% of family nurses offered home visits to 75-99% of their caseload; 20% of family nurses offered visits to 50-74% of their caseload; and 22% of family nurses offered home visits to 25-49% of their caseload.

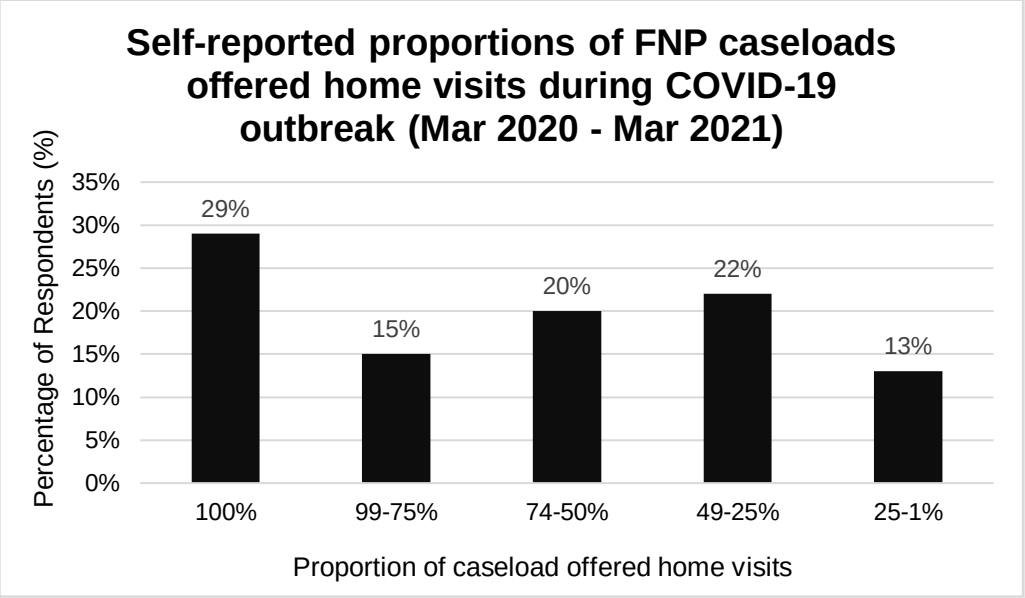

Figure 3. Reported proportion of FNP client caseloads offered home visits during COVID-19 outbreak, from March 2020 – 2021.

Family nurses reported that home visits were conducted in accordance with Scottish Government Clinical Guidelines under the direction of their local teams and Health Board's. Essential visits were permissible at all times and typically depended on the level of local restrictions and stage of programme for a client (i.e., pregnancy, infancy, toddlerhood), as well as the outcome of the individual risk assessment.

Restrictions placed on home visiting meant that family nurses had to undertake new responsibilities involving an increased focus on safety and risks relating to COVID-19 transmission, as well as an increased use of clinical judgement to offer essential visits to clients in accordance with guidelines. Family nurses expressed this was a challenging aspect of their role but felt that their local teams were supportive, and that supervisors often helped them to consider or reflect on decision making concerning home visits.

Essential visits were typically conducted for assessments, newborn visits, pregnancy phases 'P1' visits and child protection reasons. Family nurses also reported visiting clients suffering from mental health issues and domestic violence. Some family nurses also mentioned visiting the homes of non-English speaking clients, due to challenges around digital engagement and connecting with interpreters remotely.

> "So in COVID we've obviously had to be directed by Scottish government to which visits we can do face to face, in their communication with us which visits we could do face to face and which visits have to be done on a digital pathway. However, in all of this we have had...we're qualified nurses so we have had freedom to be able to assess ourselves whether a face-to-face visit is required. And predominantly I would say that would be for domestic abuse or for child protection. […] We've had to work very carefully with Scottish government from a FNP point of view [and] with our health board as well, but we've had to keep our clients and our nurses safe." – [Family Nurse, North]

Clients were understanding of the pandemic restrictions and ultimately valued having a line of communication with their family nurses, regardless of delivery format. However, most clients reported a preference to see their family nurse in person, agreeing that they were more comfortable talking to their family nurses face-to-face, compared with phone or video calls, and felt that in-person interactions were more efficient and re-assuring.

> "I actually prefer the face-to-face, it's nice to see somebody especially during all of this, I feel like face-to-face is a lot more reassuring than over the phone and it is nice to speak to somebody who is not family either." – [Client, West, enrolled during COVID-19]

Family nurses also noted their preference for home visiting and mentioned that clients frequently requested home visits in place of or in addition to telehealth contacts. Several family nurses reported visiting homes more regularly during the summer months when restrictions were relaxed.

Overall, several family nurses stated that they conducted more home visits during the second national lockdown[2] compared with the first. Family nurses described feeling more knowledgeable and comfortable with transmission risks over time, due to factors such as lower case numbers being reported and becoming vaccinated against COVID-19. Some family nurses also felt under increased pressure from clients to conduct home visits during subsequent lockdown periods in place of virtual contacts. Family nurses attributed this to higher levels of vulnerabilities across their caseloads, often associated with the impacts of the pandemic. Most frequently these were regarded as increased mental health challenges, risks of domestic violence and changes to a family's circumstance or home environment that raised cause for concern.

Clients were understanding of COVID-19 risks when being offered a home visit. Most clients felt safe during home visits, noting that they trusted their family nurses as health professionals to appropriately use PPE and mitigate transmission risks.

[2] Time period – January to April 2021.

> "With the PPE and stuff, we were all well protected, she had her mask and her gloves and her apron on at all times, she never came in the house without it. And I knew at any point if she felt she wasn't well or anyone in this house wasn't well, that we wouldn't allow her to come in, so we felt safe with her in the house." – [Client, West, enrolled during COVID-19]

In contrast, some clients were less comfortable about receiving home visits and didn't want to put themselves, their child or their family at risk of COVID-19 transmission.

> "This was when lockdown was over, but obviously still COVID was going about, so I didn't feel comfortable with her coming in to my home with, obviously, my child, due to her being… I know that she goes home and sanitises her hands and everything, but just with her being in other people's houses, I just wasn't comfortable." – [Client, East, enrolled pre-COVID-19]

Where home visits were offered, most clients were reported to take these up. However, in some instances, clients declined home visits due to reasons such as being clinically vulnerable or having 'shielding' family members; being afraid of COVID-19 risks; or having to isolate as a result of COVID-19 exposure. In rarer instances, family nurses perceived that some clients with lower engagement used reasons relating to COVID-19 to avoid face-to-face engagement with the programme. Similarly, some believed that technical issues and connectivity problems were also used by a small proportion of clients to avoid digital contact and engagement. In these instances, family nurses reflected that most clients avoiding contact were already exhibiting lower levels of engagement with FNP pre-COVID-19.

Similarly, some family nurses also reported feeling afraid or anxious about catching COVID-19 during in-person visits. Some family nurses perceived that it was not always safe to enter the clients' home due to large numbers of people sharing a household, despite taking precautions such as wearing PPE.

> "They're also going to home visits that sometimes, despite every best effort, they're doing their risk assessment, they're trying to keep themselves safe, they're going in and having their PPE on, but they go in and the house is really full with other family members. And they're thinking to themselves, 'are they all following the rules … I'm in the house and putting myself out there, even though I'm trying to follow the rules myself.' And that for them at times has been scary." – [Family Nurse, West]

When addressing coronavirus transmission risks, family nurses in a number of Health Board's shared that they offered alternative face-to-face forms of programme delivery to clients. These included taking socially distanced walks or sitting outside in a café. While these types of contacts are not atypical to traditional FNP delivery, family nurses, and clients experiencing these for the first time reported enjoying opportunities for outdoor face-to-face contacts and perceived that they worked well. A number of family nurses also perceived that some clients were able to open-up and discuss more challenging or

sensitive matters in a different environment (i.e., on a walk). Family nurses noted that factors such as walking side-by-side and having less eye-contact made clients feel more comfortable to disclose information or talk freely.

> "We used to take them in the car sometimes for appointments or housing or whatever and you would get your best conversations there because you're not looking at them. So I think because of the teenage brain, and they find eye contact difficult, they really struggle with the video calls." – [Family Nurse, North]

4.3.2 SMS (Text Messaging)

Text messaging was commonly used between clients and family nurses for scheduling appointments, providing updates or reminders, and communicating about concerns relating to the client or their child. Text messaging was described as a longstanding method of communication in the programme (pre-COVID-19) and was perceived as being very accessible format for both clients and family nurses to communicate in between scheduled contacts.

> "[My family nurse has] given me her number so if I ever felt the need to I could just text her if I had any concerns but like that sort of calling, that's usually like once every four weeks or so." – [Client, West, enrolled during COVID-19]

Some family nurses noted that clients would often send texts late in the evening or early mornings and described the importance of setting boundaries to protect their personal time by turning off work phones at the end of the workday.

> "I'm thinking about one [client] in particular whose mental health has not been great. She will be quiet and 'yeah, it's okay, and it's…yeah, we're doing okay', and then I'll put my work phone on in the morning and there's a fairly extensive text about what's actually going on. If they're up feeding the baby during the night or whatever, they'll text, so I learned very quickly to put my phone off at half past four and put it back on again at half past eight, because quite a lot of my texts come in late at night or early in the morning." – [Family Nurse, West]

Overall, many described text messaging as an effective way to supplement and organise remote programme delivery. It also helped to support engagement and maintain relationships with the younger client age group, in particular.

> "Text messaging is probably the main way that I do speak to people apart from videocalls, so I tend to remind them about the videocall the day before and remind them what time to connect. And then they do text now and again to say, can you call me, I've got a question about teething, and stuff like that." – [Family Nurse, East]

4.3.3 Telephone Calls

Most family nurses described using telephone calls to some extent to deliver FNP remotely. A number of family nurses reported that the majority of their remote contacts with clients were conducted over the phone. Phone calls were widely used across all Health Boards at the outset of the COVID-19 outbreak until other telehealth options became available.

Telephone calls were identified as a preferred option for many clients despite the option of videocalls being available. It was noted that conducting certain activities (e.g., assessments and PIPE) were considerably limited via the telephone as opposed to by video call or face-to-face interaction.

> "My clients, at the moment, most of them want phone calls rather than NearMe." – [Family Nurse, East]

4.3.4 Video calls: NHS Attend Anywhere & NHS Near Me

NHS Attend Anywhere and NHS Near Me were frequently cited as two main modes of approved video communication with clients. Most clients and family nurses perceived the platforms as being intuitive and easy to use.

> "It's really easy to use NearMe, it's really easy to use and the way it's set out and when your client reads it, it's really welcoming for the clients. [It names] the four nurses in our team… and I think that's really nice, so the client knows they're in the right place. Actually, when you text them your appointment and you put the link in it automatically comes up with a link on their phone, so they just click onto it on their phone if they've got an iPhone or a smartphone. That is so easy for them and I really like that. So I think the system is really good. I think the system is really smart… It's a really efficient system." – [Family Nurse, West]

> "So, technology comes quite easy for me, I know it doesn't to a lot of people. So, I can attend anywhere and stuff that's used to Zoom and things like that, all comes second nature to me because just now a lot of my life is online." - [Client, West, enrolled during COVID-19]

Family nurses felt that they had a better sense of a child's development and the home environment via videocalls when compared with telephone calls. However, most nurses and clients expressed that these platforms did not offer the same benefits, in terms of social interaction, experience and relationship building when compared with face-to-face programme delivery.

Family nurses reported successfully using the platforms for supervised contacts and to involve clients in activities such as the interview processes for new family nurses and service improvement.

Challenges relating to technical difficulties and connection issues were raised by clients and nurses when discussing the NHS Attend Anywhere and Near Me platforms. Data usage constraints for clients were also noted, however where possible family nurses sought to mitigate these barriers by accessing mobile credit, data and WiFi for clients either through their local teams or organisations such as Connecting Scotland[3].

Many family nurses also reported that clients felt uncomfortable and anxious about engaging in video calls compared to other forms of contact.

> "And I think it's, they're starting to get used to it, but it's a new way of working, even for clients, and I think some struggle, and also, obviously issues with IT, and wifi, data, you know, all the other things that go along with that." – [Family Nurse, East]

> "That's right, NearMe or telephone call because a lot of our clients…a lot of my clients are struggling with video calls. Some are absolutely fine with it and actually really love it but I would say, the majority of them do struggle with it, with signal, rural living and signal or just not liking to be seen on a video call, women with low self-esteem or just feeling uncomfortable or just not liking having to balance looking after their baby and being on a screen at the same time; those kind of things." – [Family Nurse, West]

Some family nurses mentioned that their teams had been asked to nominate local champions for the use of NHS Near Me/NHS Attend Anywhere. This was described as a useful and positive link to support teams troubleshoot and resolve issues with the platforms.

4.3.5 Social Media and Other Communication Platforms

WhatsApp:
In at least one Health Board, family nurses and clients reported using WhatsApp to communicate with each other. Due to its widespread availability, some Health Board's quickly received clearance to use WhatsApp at the onset of the pandemic. Latterly, due to the introduction of NHS approved platforms and information governance requirements, approval was withdrawn for the use of WhatsApp as family nurses were encouraged to use the NHS Attend Anywhere or NHS Near Me platforms instead.

[3] The Connecting Scotland programme works with local councils, public and third sector organisations to support their service users getting online. It provides internet enabled devices such as iPads and Chromebooks, connectivity (mobile data), and support to develop digital skills for people who are digitally excluded and on low incomes (Connecting Scotland, 2021). The initiative was started by the Scottish Government in response to the COVID-19 pandemic and is operated as a partnership between local councils and Scottish Council for Voluntary Organisations (SCVO).

WhatsApp was considered to be a widely available, trusted and accessible to clients which enabled them to conduct phone calls, video calls and send messages to their family nurses using a familiar platform. Family nurses felt this mode of communication was particularly beneficial when engaging minority groups and for being able to send documents and resources to clients.

> "And for me, there felt like a lot of pressure to move to Attend Anywhere from top down. When actually I've always felt, and I still maintain that using a WhatsApp video call was more accessible to lots of the clients. Because as a service we went to them. Before COVID we went to them. We made it easy, we went to their house, we met them where they wanted to meet us." – [Family Nurse, West]

Family nurses were encouraged to move towards a standardised approach for service delivery that adhered to NHS Scotland information governance protocols. Many family nurses reported that supporting clients to switch to another, less familiar, platform such as Near Me was a challenging aspect of the new service delivery. Family nurses continued to believe that solely moving to NHS approved platforms did not provide the opportunity to align with the interest, needs and personal preferences of clients for communication purposes.

YouTube & Social Media:
Family nurses also reporting using websites resources and NHS YouTube clips for distributing information and conducting demonstrations with clients as they felt could sometimes be more effective than providing clients with text heavy resources.

> "I've used a lot of NHS YouTube clips [for] a few clients in the pregnancy days, so things like, coping in labour, induction of labour, and even virtual tours around the hospital, they have that in [my local Health Board] now, they have a link to a site for [a local] maternity unit, so using this kind of thing, like video clips. My clients are quite visual, so sometimes just directing them to a website that has a lot of written information, I don't really feel [its] appropriate for some clients. Sometimes, I'll do that and hope they read it, but I'll maybe do a bit of both, try and find more visual things that they can watch." – [Family Nurse, West]

A small proportion of family nurses also mentioned that their teams created Facebook, Twitter or Instagram accounts for the FNP service in their local Health Board's as a way of encouraging clients to connect with one another other and reduce isolation. Another suggestion included forming a WhatsApp group for connecting clients with one another to form supportive groups.

> "[My team has] an FNP Facebook, Twitter and Instagram account, because again socially-wise, we want clients to connect with each other. We aren't totally at that stage yet, but at least we've now got the social media platforms as well. There's been a lot of good that actually has come out of last year, you know, with things that've been sitting in the pipeline for ages and it's actually moved on quickly because we're so desperate to have, a virtual system with these things. There has been some good that has come out of such a terrible year." – [Family Nurse, West]

Family nurses and clients also reported using emails to send and receive programme resources such as facilitators.

Microsoft Teams:
Microsoft Teams was primarily used by family nurses for team meetings, supervision, communicating with colleagues as well as other professionals and agencies. Microsoft Teams was also used for updates and quick chats between colleagues, trainings, and Child Protection meetings. Family nurses mentioned that Microsoft Teams was set up quickly for them at the outset of COVID-19 outbreak and that they find the platform accessible and convenient. Overall, family nurses had positive experiences with Microsoft Teams.

4.4 Client Engagement and Retention

4.4.1 Remote Recruitment

Recruitment rates were largely reported to have remained the same during COVID-19 restrictions. Family nurses reported conducting recruitment predominantly by telephone. Despite recruitment rates remaining roughly the same, many family nurses reported that recruiting clients using telehealth was considerably more challenging when compared with face-to-face recruitment. While the implications of this may not be centred around recruitment or attrition rates, many perceived that recruiting clients using telehealth impacted the quality of relationships and communication established during early phases of the programme.

> "I have managed to recruit the majority of [my clients] but it's definitely much more difficult and then keeping that engagement through pregnancy has been difficult. I've not lost any [clients] but it's been hard." – [Family Nurse, West]

> "I think… it was twofold really I would say with the pregnancy [clients] initially with the telephone sessions. When you are trying to meet [clients] face-to-face it's a lot easier to try and engage [clients] and explain about what FNP is all about initially and try and engage them on the programme. – [Family Nurse, East, 4]

4.4.2 Client Engagement and Remote Delivery

Surveyed family nurses reported the following changes to client engagement with the FNP programme following the COVID-19 outbreak: slight decrease (46%), stayed the same (32%), increased slightly (13%), significant decrease (9%), significant increase (0%). More than half of the family nurses surveyed perceived a decrease in client engagement to some extent.

In the qualitative research, some family nurses recalled initially worrying that client engagement would be severely impacted by COVID-19 and the associated changes to service delivery. However, many felt engagement levels remained stable, highlighting that the majority of clients worked well with family nurses when adapting to new forms of contact and engagement in the programme.

> "I think the clients, because I worried when COVID first came, that we would lose them, and you know, because you think, what are they going to do if you stop going to visit them, are they not going to let you back in. But if anything, I think for the majority of them, it's been the opposite. Because we're their link, and you're the person that they can trust to ask things." – [Family Nurse, North]

In terms of wider engagement, most family nurses identified that existing clients who had already demonstrated good levels of engagement with the programme pre-COVID-19, largely continued to engage well with telehealth. Clients who already exhibited lower levels of engagement, were less likely to engage in the programme via telehealth.

One family nurse reported that virtual calls allowed them to engage clients' partners more successfully in the programme due to being able to offer calls later in the day suit partners' working hours. However, other family nurses felt it was challenging to engage multiple participants on a virtual call and that partners of clients would often lose interest as time went on. Family nurses drew on the importance of engaging partners and wider families early in the programme and were alert to the prospect that remote delivery could affect this negatively as partner's may have felt less comfortable engaging virtually or that there was less need for them to join in on a call.

4.4.3 Variations in Remote Recruitment and Engagement

Client engagement and interaction over telehealth was variable depending on the stage of programme (e.g., pregnancy, infancy, or toddlerhood phase). During the pregnancy phase, once clients had been successfully recruited, family nurses felt it was easier for clients to engage in the programme remotely due to there being fewer distractions at this stage.

> "So, during pregnancy, delivery of the programme and maintaining the structure of the visit is easier because they're not so distracted. But that's the crucial time where you're trying to build up the therapeutic relationship." – [Family Nurse, North]

It is important to note that engagement in pregnancy is key since it is a period where family nurses can start developing strong therapeutic relationship with clients and influence positive behaviour change.

During the infancy phase, a mixture of face-to-face and telehealth contacts were valued by clients as many sought reassurances at this stage regarding their baby's development. Some clients found remote engagement more challenging during infancy and some would try to plan calls around the baby's routine or feeding times to accommodate this.

Toddlerhood was reported to be the most challenging phase for both clients and family nurses when conducting contacts using telehealth. Clients found looking after a small child was difficult while also trying to maintain focus on a video call with their family nurses. Likewise, family nurses found it challenging to engage clients remotely due to increased distractions at this stage. Family nurses and clients reported that telephone calls using speaker phone or face-to-face visits were preferable in these instances. One family nurse recalled:

> "Some [clients] have really embraced it, have found it really helpful, and quite like to see your face on screen. Whereas… the ones that have found it more challenging, maybe have small children. So, if you've got a baby who needs attention and you're trying to hold a phone up, because the majority of mine are using it through phone, rather than a tablet, or a laptop. So, holding a phone, and holding a baby, it can be quite difficult in that respect." – [Family Nurse, East]

4.4.4 Retention and Attrition

In the survey, most family nurses self-reported that client retention had either stayed the same (74%) or increased slightly (6%) following the COVID-19 outbreak. A slight decrease was reported by 18% of family nurses and only 1% reported a significant decrease.

Overall FNP attrition rates were perceived to be low throughout the COVID-19 pandemic period. Family nurses felt that any clients who dropped out of the programme were previously at risk of doing so pre-COVID-19.

The qualitative research revealed that there was an overall sense that attrition rates had remained low due to the importance of the FNP programme and support provided to clients and their children during a time of widespread difficulties and isolation.

> "I really do think we're seeing very little attrition. We're seeing very [few] people leaving the programme as well. I think what the clients are telling us is having that contact with their family nurse is more important than ever because they might be the only person they're getting to see out with their home." – [Family Nurse, West]

4.4.5 Sustaining Engagement via Telehealth

A few family nurses mentioned that clients were beginning to struggle with fortnightly telehealth engagement over time and began requesting more home visits and face-to-face contact. This was often described in reference to lockdown restrictions re-introduced towards the end of 2020 and early 2021. Family nurses perceived that clients were becoming fatigued with ongoing virtual contacts and were expressing preferences for face-to-face contact.

> "Right now, keeping clients engaged is quite difficult. They've done really well but they're getting to the point where I think we're all starting to notice that they're struggling. Yeah, they're starting to say, no, I don't want a phone call, I want you to come and visit. So they're not saying that they won't engage with the programme but they won't engage with the programme remotely anymore, so that's quite a challenge." – [Family Nurse, North]

All clients interviewed were ultimately understanding of the restrictions and the need to conduct contacts remotely but those who had received face-to-face contact expressed how valuable it was to be able to speak in person with a trusted source of support and receive reassurance about their child's development and wellbeing. Clients who had been engaging remotely for longer periods of time felt that being offered reassurances and positive feedback about their children via remote platforms was less beneficial compared with face-to-face contact. Clients felt it was important for their baby's development to be reviewed in-person and looked forward to the resumption of home visits for this purpose.

> "Well, I prefer face to face talking, especially when it's about the wee one, because it is kind of hard to like think what he has been doing, and like do it over the video call. It was just easier when she was there and she could actually see for herself what he's doing." – [Client, West, enrolled pre-COVID-19]

4.4.6 Barriers and At-Risk Groups

While many family nurses felt able to engage a proportion of their caseload in the programme remotely, particular challenges were reported for certain groups of clients such as those with complex vulnerabilities, migrants and clients who spoke English as a second language. Family nurses generally perceived that it was not feasible to engage their most vulnerable clients remotely and felt strongly that home visiting was the most appropriate form of engagement in these instances.

Clients living with mental health conditions such as ADHD, anxiety, and depression were perceived to have difficulties engaging with the programme remotely. Family nurses reported clients with poor health were less comfortable to speak over the phone or by video call. They also noted an increase in poor mental health across their caseloads during the pandemic partially attributed to by the re-introduction of national lockdown restrictions. Some family nurses felt that clients struggling with their mental

health were more able to withdraw and hide their circumstances or avoid remote engagement attempts.

> "We can still deliver the programme and we can still check in with them, but they can shelter us a bit and hide from us if they don't want us to know, if they don't want to know that they're feeling particularly low or whatever, they just don't tell us. They're on the phone, and so it's easy for them to not have to admit if there's something going on, or something they're not coping with, or they're just feeling a bit rubbish that day, do you know." – [Family Nurse, West]

A common finding reported by family nurses was that clients often felt very self-conscious or anxious discussing themselves or their situations over a video call.

Family nurses also felt that they were less able to detect cues from client's body language remotely and that this presented challenges when trying to communicate effectively. Some of these challenges have been highlighted within modes of service delivery, under the video calls sub-theme.

4.5 Programme Dosage and Fidelity

Most clients were reported to be within fidelity ranges[4], often due to the increased provision of additional contacts. Family nurses perceived that some of these clients were at most risk of being unable to meet programme fidelity. In these instances, family nurses had difficulties maintaining engagement and had limited opportunities to offer in-person engagement to clients whose situations did not warrant essential home visits.

> Interviewer: "Have you seen a difference in clients meeting fidelity ranges over the past few months?"
>
> "Yeah. I think I've got clients who are probably well within fidelity range, rather than just meeting it. Well within because they've needed a bit extra. And I've got the other clients, as I say, that group who don't do phone calls, don't do Near Me, don't respond to letters, will see me but if they can't see me, they're not doing it. If they can't see me in person, they're not doing it. That's really affecting things, yeah." – [Family Nurse, North]

Family nurses reported that opportunities provided by different telehealth modes helped them achieve dosage[5] with some clients who were busy with work or education commitments. Clients also mentioned that they appreciated this flexibility and the convenience afforded by remote contacts when trying to manage responsibilities and commitments.

[4] Fidelity refers to the delivery of the FNP programme, including amount of programme received (i.e., number of visits) and coverage of programme content domains.

[5] Dosage refers to amount of programme received, measured by number of visits/contacts.

Most clients did not experience any major differences in the number of contacts with family nurses during COVID-19 compared with prior programme delivery. Many clients reported keeping in contact with their family nurses via text messaging between scheduled programme contacts and most felt able to contact family nurses with queries and concerns during this time if necessary. The quote below from a client reflects this:

> "Every two weeks I think where we have a proper catchup every two weeks, but I can text her or phone her any time if I've got any questions or anything. So, sometimes it's maybe like once a week, but it will just be over text type thing, but we have a proper catchup every two or three weeks." – [Client, West, enrolled pre-COVID-19]

Clients who were pregnant commented that they were given the choice on how frequent visits would be.

> "Yes, she came over to my house for the first 12 weeks, and then she had to stop for the last trimester just because it was a bit unsafe, but she still…I had voice calls with her every week when she couldn't come which was also really supportive… It was a choice that she could still come and see me in my last trimester or do phone calls, and I picked phone calls for her safety as well." – [Client, West, enrolled during COVID-19]

Virtual meetings over videocall were reported to be as frequent as home visits.

> "[My family nurse] has not really been able to see [my baby]. Just having to, like, video call and stuff. You know, not being able to see [my baby]. Not being able to see her grow up more and… it's harder not knowing what she's weighing and stuff like that, I think. But we have…I managed to see her a few times. But, yeah, it has affected it…kind of." – [Client, North, enrolled pre-COVID-19]

In terms of programme dosage, survey findings show there are small differences in the overall self-reported provision of visits to clients, before and during the COVID-19 pandemic. Figure 5 shows that during COVID-19 there was a slight decrease in the number of contacts being conducted. For example, family nurses reported a decrease of 14% in always meeting programme fidelity following the outbreak, and a 5% decrease in meeting this most of the time (see Figure 5).

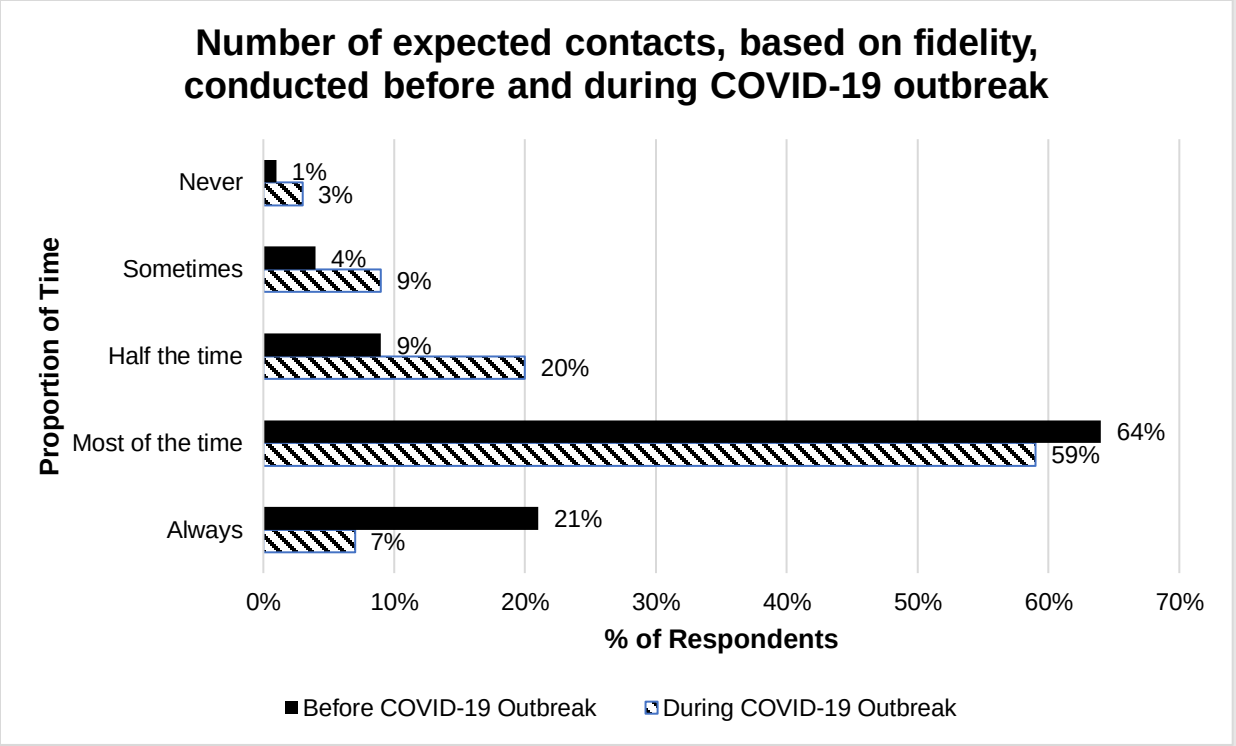

Figure 4. Self-reported changes in the number of expected contacts, based on fidelity, provided to clients before and during the COVID-19 outbreak.

4.6 Additional Contacts and Support

Many clients discussed having ongoing personal issues that they spoke to family nurses about informally between visits. Although scheduled contacts were weeks apart, clients were able to contact their family nurses by phone call or text message regularly between visits. Many clients felt that contacting family nurses this way built a more personal relationship. They commented that their family nurses were key supportive figures in their lives whom they trusted and felt able to contact regularly with any concerns.

> "I've personally got [my nurse's] number so I can text her if I've got any questions and she'll give me the information. Even if it's not a scheduled call time, she's always there and can always help us. And it's like, I don't know, it doesn't feel like a teacher type of thing as such, it's more like a friend." – [Client, East, enrolled during COVID-19]

Increased vulnerabilities such as mental health challenges, increased risk of domestic violence and changes to family circumstances during the pandemic have meant that some clients required higher levels of additional support. FNP nurses felt they were amongst some of the few professionals working with vulnerable clients during the pandemic and as such provided more support to clients who needed additional contacts

during this time. Some family nurses commented that providing such increased levels of support was unsustainable in the long-term.

> "I would say we have managed. And I suppose that would be to the credit of the nurses that are delivering the programme that we would still maintain the same level of service. But we've had to – the [clients] say in the green level – they're still getting their fortnightly contacts but those in the red zone are getting much more contact than that. Which, I suppose I would say it impacts on the nurses. We're doing it but I think longer term it's going to burnout, people are feeling extremely stressed and, you know, that's what I think it is. It's impacting on the nurse as well, being longer term it cannot be sustainable." – [Family Nurse, North]

Self-reported survey findings indicated that family nurses perceived that their volume of additional visits was somewhat above average (20%) or far above average (2%) during the COVID-19 outbreak. These findings were slightly lower for self-reported visiting patterns prior to COVID-19, which were 25% and 3% respectively (see Appendix 2).

4.7 Therapeutic Relationship

Relationship building, communication and social interaction were found to be negatively impacted by the use of telehealth. Early relationship building was reported by family nurses to be the most significantly affected aspect, perceiving that it took longer and required more effort to establish a strong therapeutic relationship with clients remotely. Over time, family nurses felt able to build the relationship with clients as normal, but many reported that face-to-face contacts were key to establishing this more successfully.

> "So, I do feel like probably my relationship with the [clients] that I've recruited during lockdown is not quite as good as the ones I had recruited before. Because they've all been on videocall as opposed to face-to-face. So, I feel there is a bit of a barrier there." – [Family Nurse, East]

Family nurses also felt that clients were less able to disclose and communicate feelings about issues over the phone or by videocall and felt that it was harder to pick up on subtle cues that would usually alert them to an issue during a face-to-face interaction.

No clients reported feeling unsupported by their family nurse. Clients perceived their relationships with family nurses as valued and highly personal, often describing them as trusting and reliable professional friendships.
Being listened to and supported often gave clients much needed assistance during a challenging and vulnerable period of their lives. For clients, the pandemic only made this relationship more necessary to their support system when access to other services, family members and friends was often restricted.

> "I mean I think more than anything having someone to talk to. I think everybody has been really isolated during COVID and well, I haven't really been able to see people and with being pregnant, I've tried to keep myself away from as many people as possible, so getting to actually add to that and bond with somebody I think made that even more special" – [Client, West, enrolled during COVID-19]

While clients felt supported overall by the programme, a number felt slightly less supported by virtual and distanced communication. Clients' reflections on the impact of COVID-19 on their relationship with their family nurse demonstrated a preference for face-to-face communication, which they agreed had lessened during the pandemic. Many clients commented that it was easier to build up a relationship face-to-face. However, clients recruited during the pandemic felt they were still able to establish a good relationship with their family nurses and while happy to receive the programme regardless of delivery mode, they looked forward to receiving more in-person visits in the future.

Although clients felt that being able to text message their family nurse when needed, many mentioned that talking to someone face-to-face was more important therapeutically to discuss complex or personal issues and to relieve anxiety or provide reassurance.

> "Yeah, it's really good. It really just helps to kind of keep myself and my partner in check. 'Cause if there's just anything we have doubts about or, as well 'cause it's a lot about becoming a parent but it's also about how we're feeling. And it's almost like a therapy session but it's not in such a drastic way. It's just kind of making sure we're all feeling okay with it. And if we're not then getting help and advice on what to do about that". [CLIENT, EAST, enrolled during COVID-19]

Many clients described their family nurse as being their 'first port of call' or 'go-to' and highlighted a number of instances when family nurses went 'above and beyond' to help them address issues during the COVID-19 pandemic.

> "[My nurse], she asks this all the time, she says, 'is there anything I could do better?' Literally nothing, I don't know if it is the programme or if it is her or if it is everything put together, but everything is just better than we could ask for. She has opened up a lot of opportunities, like we are struggling to get moved, our house isn't really appropriate for the baby to come in to and she is working outside of her duty to help us with that…she is helping us in real life as well not just, 'oh, this is how you be pregnant, and this is how you bring up the baby'. She got stuck in to just helping us all round. I would say her as a whole in the programme it works really well for us." – [Client, North, enrolled during COVID-19]

4.8 Programme Activities, Assessments, and Observations

Overall, survey, focus group and interview findings all showed a significant impact on the ability of family nurses to effectively conduct assessments and observations using telehealth. Figure 6. illustrates the survey findings. These show that the ability to conduct assessments of the home environment was most affected, with 98% of family nurses reporting this had been negatively impacted, overall. Observations of the child were perceived to be negatively impacted by 94% of family nurses and child health assessments were reported as being worse by 86% of family nurses. No family nurses reported improvement in any of the key assessments and observation domains.

In relation to clinical observations, family nurses reported that their ability to do this via telehealth was somewhat worse (76%), much worse (17%), about the same (6%), somewhat better (1%) and much better (0%), see Appendix 2.

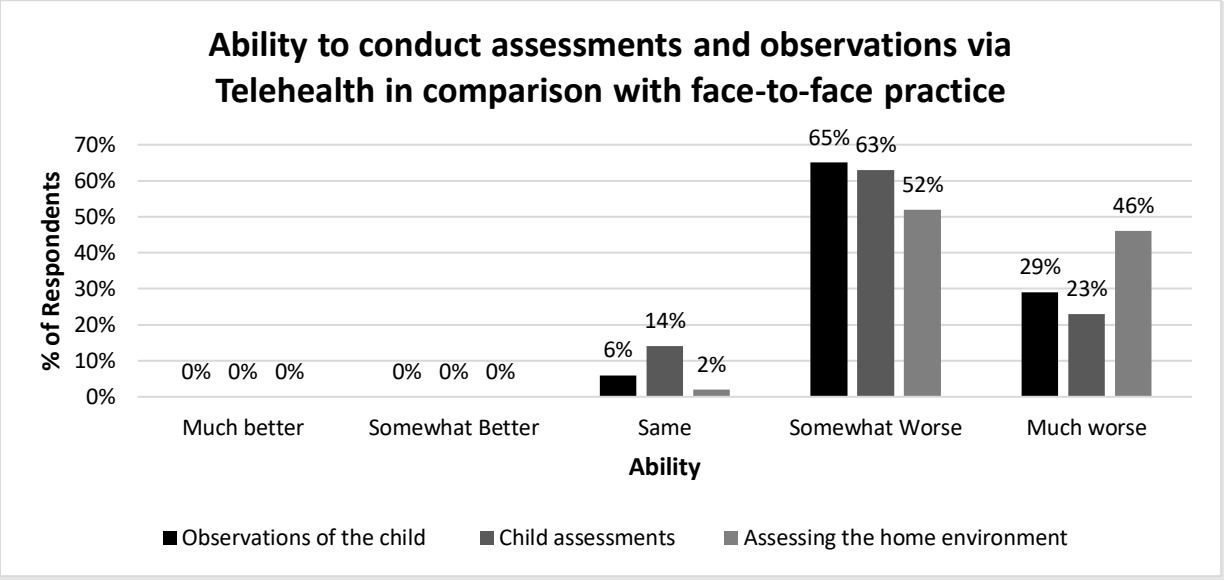

Figure 5. Self-reported impact of telehealth on ability to carry out assessments and observations, including observations of the child, child assessments (e.g. ASQ), and assessments of the home environment.

4.8.1 Partners in Parenting Education (PIPE)

Most family nurses felt that telehealth limited their ability to conduct PIPE activities with clients due to their interactive and illustrative nature. They relayed that some activities were very challenging to deliver virtually and perceived that clients were finding it difficult to engage with these activities remotely. Family nurses specifically cited not being able to do certain activities that involved props such as a doll and expressed that they tried to be more creative and innovative to adapt the programme.

> "So, [for] PIPE, you really need to bring stuff out to the house, so often you would bring a doll to do a demonstration, or you would bring some kind of toy, which it's very difficult to do that over a videocall. There are a few that we can do on videocall but not many. So I think probably all together we might have 25 PIPEs and there might be three that we can do at the minute. So they're missing out on that." – [Family Nurse, East]

Clients reported that remote delivery impacted the use of facilitators in the programme. Clients described finding programme materials and teaching from family nurses useful and informative. When family nurses were able to show clients practical information in person, clients reported finding this to be a more positive and useful experience compared with remote formats. Some clients described that during periods of lockdown, family nurses had stricter guidelines, so were unable to use facilitators in clients' homes.

> "Yes, actually before Christmas she brought a baby… it was like a weighted baby… and we did this exercise during the appointment seeing what we did with a baby when we were left with it, to see if we are the kind of people that would just kind of sit with the baby slumped on the couch, even though it is a pretend baby. Like were we going to be responsible with this baby. I would say it was quite fun to be honest, like I'm finding quite a lot of it quite fun. It's not, it doesn't feel like a programme, it just feels like we've just got somebody coming to see us to have a chat some days." – [Client, North, enrolled during COVID-19]

4.8.2 Assessments of the Home Environment

Family nurses felt that remotely assessing home environments was extremely difficult, or 'impossible' in some cases. Key challenges related to being unable to identify who else might be present in a room with a client and being unable to detect the overall condition of a home as well as more subtle signals including, family dynamics, body language, smells, and potential hazards.

Several family nurses reported conducting home visits with clients following extensive period of remote delivery, to ascertain more about the home environment. Sometimes these visits allowed the family nurse to see that the client's home environments had become a cause of concern which they were unable to detect from remote consultations.

For clients enrolled pre-COVID-19, family nurses felt that they had a better sense of potential risks based on previous home visits and were mindful of issues to monitor in subsequent remote contacts. However, for newer clients enrolled during the pandemic restrictions, it was thought to be more difficult to adequately assess the home environment. Although family nurses felt that NHS Attend Anywhere and Near Me helped to some extent, it did not facilitate a complete assessment of the home environment.

> "… the fact that you can say that you actually saw the child has been incredibly helpful by Attend Anywhere. But in terms of a robust assessment of the home environment…and again all of that stuff about picking up cues if you're thinking about domestic violence and what's going on for a family, that has been very, very challenging, doing that by virtual means." – [Family Nurse, West]

4.8.3 Ages and Stages Questionnaire (ASQ) and Child Development Assessments

The ability of family nurses to fully assess child development remotely was generally thought to be limited to some extent, however many family nurses felt they were more able to conduct ASQ assessments using telehealth, compared with other assessments, and continued to conduct these throughout the pandemic restrictions.

Family nurses indicated that many of their clients were already familiar with ASQ assessments and were able to complete the questionnaires independently due to its parent-led nature. However, family nurses reported that they encountered challenges when conducting ASQ assessments with clients who did not speak English as a first language and those who had low-literacy levels.

In terms of assessing the child's health and physical conditions, family nurses cited having some difficulties. However, the transition from phone calls to Near Me was thought to have positive impact on assessments of any visible health problems.

4.8.4 Dyadic Assessment of Naturalist Caregiver Experience (DANCE)

A large number of family nurses reported that the FNP Dyadic Assessment of Naturalist Caregiver Experience (DANCE)[6] was one of the most challenging aspects of the programme to conduct remotely. Family nurses had difficulties fully observing the interactions between mothers and children over videocalls.

> "We were under quite a lot of pressure to do even DANCE assessments over a virtual call… because we were still learning, for lots of different reasons none of us really feel particularly confident with DANCE. So, to try and then do it over a video call was just…it was too much. And I was keen to do it, happy to do it, enthusiastic to do it. But it just felt like too much. And just one extra thing to think about." – [Family Nurse, West]

[6] DANCE (Dyadic Assessment of Naturalistic Caregiver) is a validated strengths-based observation and assessment tool that allows the family nurse to code and analyse interactions between a child and their caregiver.

4.8.5 Identification of Concerns

Intimate Partner Violence (IPV) assessments were reported to be predominantly conducted during home or face-to-face visits. Family nurses felt that it was inappropriate to conduct these assessments remotely, as they could not tell if other people were also present in the client's home environment and were unable to fully gauge the client's level of comfort discussing these matters through their body language and social cues.

> "One of the biggest barriers was two families in April/May time, I was thinking, there's something going on here. I don't know what it is. I couldn't ask the IPV questions, 'cause I didn't know who was in the house [or] where. I could tell from the mum's voice something was not right. And one mum gave me snippets but when I tried to pick it up, you know, she said something like, 'oh he's just gone out the door', and she'd said to me something like, 'you've no idea what it's like here really'. And I'd said something like, 'can I ask a wee bit more about that, I'm worried about you, and I have been worried for the last few phone calls'. And she just shut it down. She just said…'and he'…I didn't think he had come back into the house but I didn't know." – [Family Nurse, North]

Family nurses felt under significant pressure to identify concerns or unseen harms remotely, often mentioning that they were worried about their clients when they were unable to see them face-to-face. Many assessments had to be made based on 'snapshots' of clients lives which was perceived to be unfair. Family nurses also referred to the importance of having 'eyes on the child' and felt that video calls were vital to achieving this remotely.

4.9 Experiences of Telehealth

4.9.1 Prior Experience

The majority of family nurses reported never having used many telehealth modes to deliver the FNP service prior to the COVID-19 outbreak. Most family nurses surveyed reported that they had no or limited prior experience of most video-enabled telehealth platforms in their roles. Prior usage of Attend Anywhere and Near Me was reported by only 9% and 7% of family nurses, respectively, while 11% reported using other video call platforms with clients, see Table 3. Some family nurses reported using telehealth in previous roles, predominantly via telephone calls, but did not report any extensive service delivery conducted in this manner.

> "My work was really supportive, so FNP was really, really supportive, and there was equipment available and there was advice available and there was support available. It was my lack of knowledge and skill that was the big barrier for me, because it was just not something I was used to doing." – [Family Nurse, East]

Telehealth Mode	**Yes** – previous experience	**No** – previous experience	**Don't know**
Telephone calls	92%	8%	0%
WhatsApp	31%	69%	0%
Attend Anywhere	9%	91%	0%
Near Me	7%	92%	1%
Video Call (other)	11%	89%	0%

Table 3. Table shows previous experience of using different telehealth modes to deliver FNP prior to the COVID-19 pandemic.

4.9.2 Digital Divide

Family nurses perceived that most clients felt comfortable and familiar with technologies such as Near Me and Attend Anywhere. There was an impression among family nurses that some clients were good at using technology whilst others were not confident using technology and there could often be disparities among their caseloads regarding clients' levels of digital literacy.

There were concerns among family nurses about the impact of digital exclusion and potential inequalities emerging in the access to the service for many of their clients. Many family nurses recalled accessing resources including, top-up cards, phone credit, mobile phones, laptops and tablets for clients via their local teams, Connecting Scotland and other third sector organisations. A strong need to support clients with technology and digital access was perceived and family nurses felt that these changes were placing already vulnerable clients at a greater disadvantage of accessing essential services and support.

> "I had quite a vulnerable family that had, yeah, children that needed, a clinic review, which was, so they were emailed Word documents to fill in, and you know, to come on a video call, and things. And just in terms of, you know, experience using that, they didn't have a laptop, there's no way they could have filled in the Word document and didn't have the resources to do that. It makes you realise that this sort of telehealth, and using technology, can really, really, for vulnerable people, put them at a greater disadvantage." – [Family Nurse, North]

Having insufficient internet data and phone credit was reported by both family nurses and some clients as a barrier for keeping in contact with family nurses and other services. Family nurses reported having to provide devices and data for clients so they could maintain engagement with the programme and access other services.

> "…obviously actually having access to devices, that has been a huge challenge. At the beginning of the pandemic, we had a number of clients that didn't even have a mobile phone. And we've worked with the third sector, which have been incredibly supportive. They gave us some mobile phones with data and top up cards at the beginning of the pandemic so that [clients] could still stay connected. And that was a huge thing. We've also worked with many charities to try and access applications for laptops and Chromebooks…iPads as well, which again, the digital exclusion stuff has become something that we're really, really mindful of and we can't have inequality and clients not being able to receive the programme if they don't have a device." – [Family Nurse, West]

Of surveyed family nurses, 34% strongly agreed and 36% agreed to some extent that the use of telehealth in FNP could lead to exclusion of clients due to a lack of technological access, see Appendix 2.

4.9.3 Connectivity

Connectivity issues were widely experienced by clients and staff using video call platforms such as Near Me. Audio and video issues were also common and many family nurses expressed that this made calls feel disjointed and frustrating.

Most clients were reported to have Wi-Fi access during the first lockdown. Many family nurses and clients reported that local FNP teams, Connecting Scotland and other organisations were able to source connectivity support for clients including, Wi-Fi boxes, Wi-Fi cards and mobile data at the early stages of the pandemic. These provisions were thought to be instrumental in allowing clients to maintain remote engagement with the programme and other services.

Family nurses agreed that being able to provide devices, data and credit to clients so quickly was an important factor in reducing barriers for some clients. Other clients were reported to have more difficulties with technology and lower levels of literacy which was a more challenging barrier for family nurses to overcome with clients. One family nurse reported that the provision of devices provided opportunities to engage with clients. This is illustrated below:

> "I think that will be good for the [clients] because we can share that journey with them. 'Oh, brilliant, you've got a new iPad, let's talk through it together, let's build it up together and, oh, let's see if we can talk together on it.' I think that's a really positive thing and might help all the things that have been a bit of a struggle." – [Family Nurse, West]

4.10 Access To Resources, Equipment and Training

4.10.1 Access to Resources and Equipment

Overall, family nurses felt well equipped and supported to conduct their work remotely. Most family nurses reported that they had laptops, smartphones, PPE, headsets, access to patient records, printers, mobile credit and internet data, as well as chairs and PC monitors from the office to help make home working easier. Family nurses also reported having access to VSee (the service used by social care and council services) and IT support from their Health Boards.

Of surveyed family nurses, 79% agreed (40% somewhat agree and 39% strongly agree) that they had access to the necessary tools and equipment for remote service delivery.

Despite most family nurses reporting feeling well equipped to deliver the FNP remotely, a small proportion of family nurses felt that they had inadequate technology, devices or resources that impacted their abilities to deliver the programme.

In two Health Boards, nurses experienced delays receiving laptops and work mobile phones. Wait times varied, but a few family nurses reported waiting approximately 11 months to receive devices since the transition to home working. Family nurses who had not received laptops were reliant on delivering FNP remotely using smartphones, personal devices, sharing laptops with other team members and going into their offices at designated times to use computers. The issue was linked to long delivery delays for equipment and was typically resolved quickly when the equipment arrived. Some family nurses also reported issues accessing computerised health records remotely.

Family nurses from several Boards reported that their mobile phones and laptops were outdated and incompatible with certain software and telehealth platforms. Some devices did not have cameras, which made delivering video call contacts with clients and meetings challenging. Some also reported difficulties when downloading applications such as Microsoft Teams onto their phones due to operating system incompatibilities.

> “Although we have [devices], it doesn’t always work the way it should. And because there’s been more of a reliance on a virtual way of working, that has been quite challenging. And I think, certainly in [my Health Board], we’ve realised that a lot of our IT equipment is coming to near the end of its life, but I think we’re in a very long queue to have it replaced. So it’s an ongoing issue and challenge, and I think, probably quite a lot of the nurses and myself have had our computers rebuilt, but it’s a wee bit like the million dollar man, you know, it’s not quite getting there, it’s just adding bits on and it’ll work for a bit, but it’s, the unreliability of it can be a bit stressful as well.” – [Family Nurse, West]

4.10.2 Clients Access to Resources and Equipment

When clients discussed access to resources and equipment two areas of access emerged: provision of technology; and access to programme materials. Clients described new schemes and grants that provided them with a laptop, phone or iPad and free data. This was understood to facilitate communication with family nurses and improve clients' ability to engage with family nurses and other learning opportunities.

> "Well I've applied for college. I did that when I first got the laptop. So hopefully I'll find out if I'll get in and stuff. And I think that'll all be through, like…online anyway because of COVID. So it's helpful that we've got a laptop." – [Client, North, enrolled pre-COVID-19]

Clients frequently discussed using facilitators and workbooks in their engagement with the programme. Many clients commented that these were hard copies that they received during home visits from family nurses or through the post. Clients commented that for virtual meetings, family nurses would post material to clients before the meeting or would drop it through clients' letterboxes. Some clients described delays with postal services, meaning they did not have the requisite material for scheduled videocalls. A few clients expressed that they also received information through email, which they commented was easier because of fewer sheets of paper.

> "Yes, especially my family nurse gives me a lot of notes and stuff, so it was waiting for them to be posted out and it is just, it's a wee bit of a nightmare when we had to do it over the phone, just like delays with the post office and stuff. So, I feel like it is a lot better when she is able to come face-to-face, we can get everything done on that day" – [Client, West, enrolled during COVID-19]

> "Yes, so when it was face-to-face visits that's when I first received my blue folder, and week after week we kind of built up the folder with the materials and went through them and stuff. But since this most recent lockdown and the Zoom visits, it's been posted out to me well in advance, so by the time my next appointment came, that I had it all on time" – [Client, West, enrolled during COVID-19]

4.10.3 Training

Of surveyed family nurses, 90%, reported being provided with some form of guidance to support their working following COVID-19. In addition, 68% of family nurses reported being offered formal training opportunities to support their working during this time, 23% reported being offered no training and 10% were unsure, see Appendix 2. Family nurses reported receiving or accessing training and support from a variety of sources namely: their supervisors, the FNP National Team who distributed good practice guidelines, NHS Education for Scotland (NES), local health boards, FNP, TURAS, and UNICEF guidelines. Local FNP teams were also cited as being extremely supportive and involved in peer-learning activities.

Family nurses recalled receiving tips and instructions about delivering the programme remotely, as well as webinars about using NHS Near Me/Attend Anywhere. Many reported FNP-specific training around conducting PIPE activities and DANCE assessments virtually. In addition, many family nurses also received training on IT systems, skills practices with their teams focusing on activities such as motivational interviewing, conducting a breastfeeding assessment remotely, and psychology supervision. Family nurses noted that the availability of a wide range of support was helpful and helped them feel confident to carry out their roles remotely.

Some family nurses found training and support to be more limited. Concerns centred around high levels of preparation for some training opportunities which could feel overwhelming, as well as confusion caused by unclear instructions and frequently changing COVID-19 guidelines. Other issues were noted around a disconnection between training on how to deliver PIPE and DANCE via telehealth, and real-world situations where the feasibility of successfully doing so was significantly limited.

> "We had guidance for delivery of FNP on telehealth. We had a training session about the delivery of PIPE, activities via NearMe, and we've had… I don't know if there was actual training or if it was just guidance, but there is a guidance thing about doing a DANCE observation over a video."
>
> *Interviewer:* "And would you say that you feel equipped to carry out these assessments using telehealth?"
>
> "I'm probably as equipped as you could be, but I don't think it's practical to expect people to do that and it just doesn't work." – [Family Nurse, North]

Several family nurses also reported not receiving any formal training relating to telehealth. A couple of family nurses said that they had received some tips on telehealth, however, after practicing they found using platforms such as Near Me intuitive and straightforward. Microsoft Teams meetings by supervisors and team-level support were mainly used in place of formal training. Overall, most family nurses reported that they had access to support at some level and did not describe any negative impacts from a lack of formal training in the use of telehealth.

> "I would say, no, I didn't receive any formal training for anything. However, we have the weekly team meeting, and I think a lot of that, my poor supervisor was sort of taken up by people having teething issues with various things, and trying to find ways round things, and maybe reviewing it at the team meeting the week after. So that's, you know, that was kind of our main sort of access of support for any issues we were having with any of the new ways of working." [Family nurse, East, 11]

4.11 Privacy and Confidentiality

Clients and staff both identified concerns with privacy and confidentiality. Family nurses were frequently concerned about their client's privacy on phone or video calls, without knowing who else might be present in the room or home. One family nurse reported that meetings in parks and socially distanced walks gave clients a safe space to open up about sensitive issues.

Working from home presented a number of challenges for family nurses in terms of having private spaces to conduct confidential calls, avoiding interruptions and being able to store data safely and securely. Some clients also reported feeling uncomfortable with family nurses working from home. Some family nurses felt uncomfortable about clients seeing their homes in the background of video calls and preferred being able to blur the background or positioning themselves in front of a blank wall for their own privacy.

Family nurses mentioned that they had received guidelines for working with and storing confidential data at home. However, in Health Board's that used paper records, family nurses felt it was more difficult to store and maintain the confidentiality of these at home compared to electronic records.

> "…my children have to do their schooling and I have to use the laptop too. We don't have resources coming out of our ears in this house. So I would say there's been a lot of careful negotiation with my video calls. Really, really careful management of the diary, ensuring that you've got privacy for confidentiality reasons. And sometimes asking sensitive questions on a video call can be challenging because you don't know if that person is genuinely alone in that room on their own, you know?" – [Family Nurse, North]

4.12 External Partnership Working

External partnership working appeared to be significantly impacted by the COVID-19 pandemic. Many agencies were reported to have limited operation which caused interruptions to referral chains. Limited access to services such as benefits advice, housing support and mental health services were described by family nurses as being most problematic. Other difficulties were noted regarding the limited or halted operation of services such as learning disability support, sexual health services and contraception access, education and employment support, Childsmile, and childcare.

> "[services] are not seeing people in poverty. I'm finding the clients have difficulty accessing benefits, no gas, run out of gas, electric, food. And we're usually the first person they call. I mean, we were referring clients to the food bank and things like that, for benefit help and things. But just on a weekly basis I'm getting people, you know, running out of gas, electric, food, just not coping at all." – [Family Nurse, North]

Long waiting lists were reported by family nurses for access to speech and language therapy and paediatricians, and family nurses mentioned that many clients were not always offered face-to-face GP visits for their baby's six-to-eight-week check which would take place via phone consultation or be suspended in some areas for a period of time.

Family nurses noted that some local authority agencies and support charities were no longer accepting referrals or did not respond to requests for support. These agencies included housing support, homelessness teams and voluntary organisations. Family nurses found it challenging to work with some third sector organisations and other agencies who were frequently unable to deliver the required level of support to clients. Family nurses described that a lot of external support was provided online or virtually which they deemed inadequate when clients needed important face-to-face, in person, support during times of crisis. Family nurses also thought that clients were less likely to engage in virtual services as many had limited access to internet-enabled devices or phone credit so were unable to access services.

> "They would normally have gone to the community centre to get help or to use a computer. You know, to fill out benefit forms, to get help. They can't do that now, they've shut the community centres. The benefits are all online but they can't fill in the forms online because they don't have mobile…they don't have devices, they don't have Wi-Fi. So I 'phone them and then I get – I've hardly any food, I've run out of gas, I've run out of electric. And we're the only people seem to be checking in with these clients as well. So it's these people with low resources that are really the most vulnerable." – [Family Nurse, North]

Family nurses felt as though they were trying to 'fill service gaps' that had emerged during the pandemic and they were often the only professionals involved in clients lives. Although nurses had received significant training in mental health they felt that were dealing with an increase in complex mental health cases which was beyond what they were trained to handle.

> "We are now having to pick up a lot more and be left kind of holding a lot more cases that are particularly difficult than we were before, without the additional support of other services. Which then dilutes the programme that we're offering. And the level of training we have in relation to mental health I think – well, we don't have loads of training in relation to mental health when, like I say, we're dealing with someone suicidal once a week at the moment. That's a new thing, that we would be dealing with it to such an intensity." – [Family Nurse, North]

4.13 Managerial Support, Clinical Supervision and Communication with Colleagues

Family nurses saw the Scottish Government, Nursing Midwifery Council, local health boards, and FNP Scotland as key levels of management that influenced the direction of changes to service delivery. Nurses described receiving valuable levels of support from managers and colleagues during this time.

> "I think it's been really positive, particularly in the beginning when the first wave was hit, we were having almost daily meetings, daily briefings about the changes and keeping us as up to date as possible. Things then were changing all the time, so it was really good to have that quick discussion and know it there and then, instead of feeling a bit overwhelmed and not really sure what we were supposed to be doing. Although things were changing we were all in it together, so I do feel that side of things has actually been really good" – [Family Nurse, West]

4.13.1 Clinical Supervision

Family nurses reported receiving supervision remotely and face-to-face via socially distanced walks, depending on local restrictions. It was widely agreed that regular clinical supervision was crucial to their roles and emphasised the importance of these meetings in terms of decision-making, supporting emotional wellbeing, problem solving, adapting to changes and being able to reflect on work practices during a challenging time.

> "I mean, supervision from my point of view and the feedback I'm getting from staff has felt very, very important because of the nurses' emotional wellbeing as well and supervision, you know, quite rightly has not always just…it's not always just focussed on the visiting pattern. It's also about how they are, how the staff are coping." – [Family Nurse, West]

Family nurses felt that supervision generally worked well over video calls, using Microsoft Teams, but many felt that the added value of face-to-face meetings could not be replicated remotely, (see Appendix 2).

4.13.2 Communication with Colleagues

Family nurses in health boards with split teams had mixed opinions about the remote delivery of weekly meetings. Many in rural areas commented that it improved engagement as family nurses did not have to drive long distances for team meetings. However, family nurses commented that they missed face-to-face interaction with their teams and felt that their sense of connection with colleagues was lessened during periods of ongoing online communication. Some family nurses felt isolated working from home. Some nurses described having team WhatsApp groups, regular coffee breaks or

catch-ups before team meetings as opportunities to stay connected in a more informal manner.

4.14 Impact of Covid-19 Pandemic on Clients

Many clients felt that COVID-19 had impacted negatively on their lives, particularly in regard to poorer mental health, employment challenges and social isolation due to COVID-19 restrictions. Clients all agreed that the programme was a significant source of support in their lives during a challenging time.

> "I think like I've found the worst part is just…like having a baby's always hard but then it would be so much easier if…because if COVID wasn't a thing, I would be going out, like to baby groups and seeing my friends and it would just take the pressure off. But it's literally like just inside the house looking after a baby all the time with no break, you know, and then not having people to support me as much. It is really difficult. Like even, like I was going to baby groups a little while before the lockdown again just as something" – [Client, West, enrolled during COVID-19]

Family nurses also discussed the significant impact the pandemic has had on their clients with notable increases in mental health challenges. A few family nurses also commented that they had observed increased rate of suicide attempts on their caseloads following the onset of the pandemic. Family nurses mentioned that some of their clients 'were going weeks without speaking to anyone' other their family nurse and were becoming very isolated during the pandemic.

> "They're used to their babies being seen all the time, for clients who have been on the programme longer, and it was really difficult, especially to start with. Especially for ones who had babies under six months, they really struggled. And I've had a lot of clients who have developed quite severe mental health problems throughout the last year. And trying to manage that has been pretty impossible because there are no other services running really." – [Family Nurse, North]

Clients' personal challenges made them realise that the programme was a significant source of positive change and support in their lives. Clients felt family nurses motivated and supported them, not only to learn more about motherhood, but also to try and make positive lifestyle changes.

> "I mean, oh she's been amazing, like. She's helped a lot because, I mean, I…like, it's just some little things, not even just the pregnancy. I mean, I lost my job at the start of the pandemic last year and that was a major stress. And, I mean, she didn't…she doesn't just help with anything to do with babies, she just helps with everything in general…she'll sit and speak about me, my mental health and how I'm feeling and what I'm wanting to do in the future and things

like that. I mean, like, it's a really trusting relationship that I've got with her" – [Client, East, enrolled during COVID-19]

Some clients discussed feeling empowered by their access to informative materials and described having more free time during the pandemic to read and digest this information.

> "[the resources] was a really helpful thing. I mean, a lot of the stuff I knew because I was that bored that I would sit and research absolutely everything. A lot of the stuff was actually really handy to know and I got a lot of, good websites to look up and…I mean, even still now I still get shown things that I didn't know and there's a lot of helpful stuff". – [Client, East, enrolled during COVID-19]

When discussing reasons why they had enrolled on to the programme, clients perceived FNP as a source of 'extra support'.

> "Yeah, I think so. Like, I wanted to build a good relationship. I think that was one of the main reasons. And getting more help, 'cause I know some people with health visitors, they don't see them, they don't really build a connection as much as you do with a family nurse. I think I have been able to build a good connection but not as much as I would of if it wasn't 'cause of lockdown and stuff". – [Client, North, enrolled pre-COVID-19]

When recruited onto the programme, clients felt well supported by the family nurses. Clients discussed three key reasons for this: accessibility of family nurses; personal commitment of family nurses to their job and clients; and non-judgemental support.

4.14.1 Impact on Children

Mothers with older children were concerned about the impact of the pandemic on their child's development and some expressed concerns about the changes in service delivery.

Mothers were worried about restrictions on socialising and baby groups and were concerned that their babies were not developing important social skills. Clients felt that their children were missing experiences that they would have had before the pandemic. Due to increased isolation, mothers felt that regular communication and contacts from family nurses was beneficial as their children could interact with another person.

Many clients expressed that they missed family nurses visiting in person, and some expressed concerns that their child was not receiving the same support because of the restrictions. A couple of clients felt that PPE was a barrier to the family nurse developing a full relationship with their client. In addition, clients felt like changes to the home visiting schedule impacted the frequency of their child's assessments.

> "I think it was, like, easier before 'cause she could come in without, you know, wearing a mask and stuff like that. Like, now…if she was to come over, she's got to wear a mask and the whole uniform and stuff so, you know, [my child] isn't, you know, getting to know her face or anything. And they're not really making, like, a bond. Like, before she'd come over and she'd hold her and she'd come and see her properly. But now it's basically all just online and stuff." – [Client, North, enrolled pre-COVID-19]

Clients reported that their child enjoyed a relationship with the family nurse over virtual platforms because family nurses did not have to wear masks when working remotely and so children were able to see their family nurse's face and smile.

> "No, when I'm on the video call with [my family nurse], he still gets really excited like he does on face to face. So, like he remembers her face, and he remembers her voice, thus he knows who she is." – [Client, West, enrolled pre-COVID-19]

4.14.2 Ability to Make Changes or Set Goals

All clients regarded their family nurses as supportive, and many described their relationship and support as a process. Clients reported that their conversations with family nurses helped them to understand what they should be doing, and to better understand their feelings. In particular, clients reflected that the time spent talking to family nurses was therapeutic and helped them relieve anxieties and prepare for changes. Clients felt that the time talking to family nurses was an opportunity for them to share their experiences, seek reassurances, and have their feelings verified.

Clients felt that being pregnant and raising a child during a pandemic was a challenging and uncertain experience. Clients reported struggling with restrictions and learning how to adapt to their pregnancy or child's developments in this situation. Clients commented that they felt very well supported by the programme which helped them navigate periods of uncertainty and increased isolation. Clients also expressed that they were able to receive relevant and informative advice at timely stages to understand their child's development and to support their own relationships, goals and circumstances.

In contrast, surveyed family nurses reported that clients' abilities to achieve personal goals and outcomes was negatively impacted by remote programme delivery. Forty-four percent of family nurses felt this had decreased slightly, 39% felt this had decreased significantly and 10% felt it stayed the same, see Figure 7.

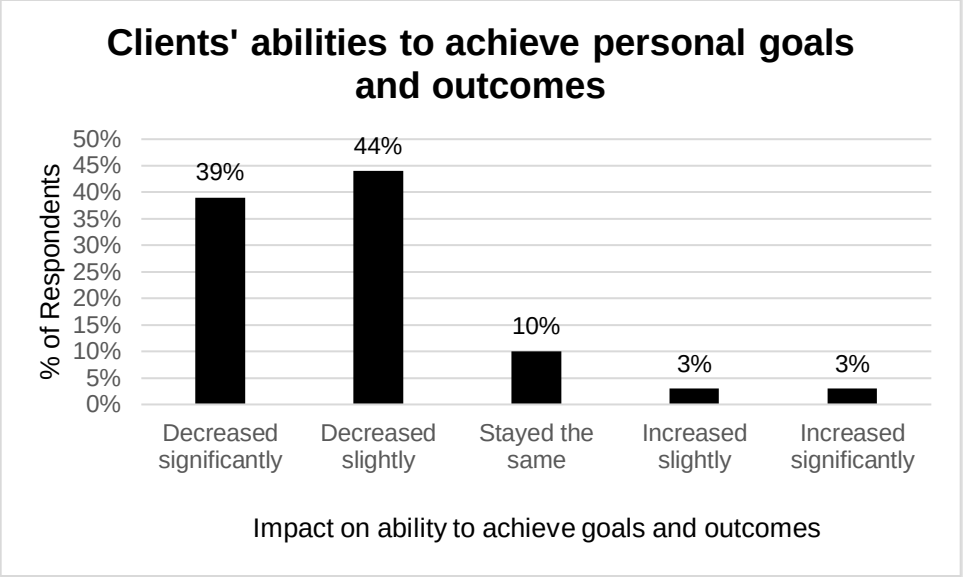

Figure 6. Clients' abilities to achieve personal goals and outcomes via remote programme delivery, as reported by family nurses.

4.15 Future Delivery of FNP

Clients and family nurses were asked about their opinions for the future delivery of FNP based on their experiences of receiving or delivering the programme. Fifty-seven percent of surveyed family nurses agreed (46% somewhat agree and 11% strongly agree) that they would like to continue using telehealth to some extent to deliver FNP in the future; 29% disagreed (15% somewhat disagree and 14% strongly disagree) and 13% neither agreed nor disagreed (see Appendix 2).

When asked to rank most preferable delivery formats, 'in person visiting only', was most preferred by surveyed family nurses (55%). This was followed by 'mixed-mode (face-to-face and telehealth) delivery' (42%) with 'telehealth delivery only' being the least preferred option (77%), see figure 8.

When asked if FNP could be delivered effectively to clients using a multi-faceted (hybrid model) approach without compromising the essence or outcomes of the programme, 68% of family nurses agreed this was possible while 32% disagreed. Of the proportion of nurses who agreed with this statement, most commented that offering a hybrid model of delivery provided convenient options to maintain high levels of engagement for clients with commitments such as work or education. Some nurses also perceived that offering telehealth contacts could actually increase uptake of the programme in some instances where there were challenges in arranging face-to-face contacts with clients.

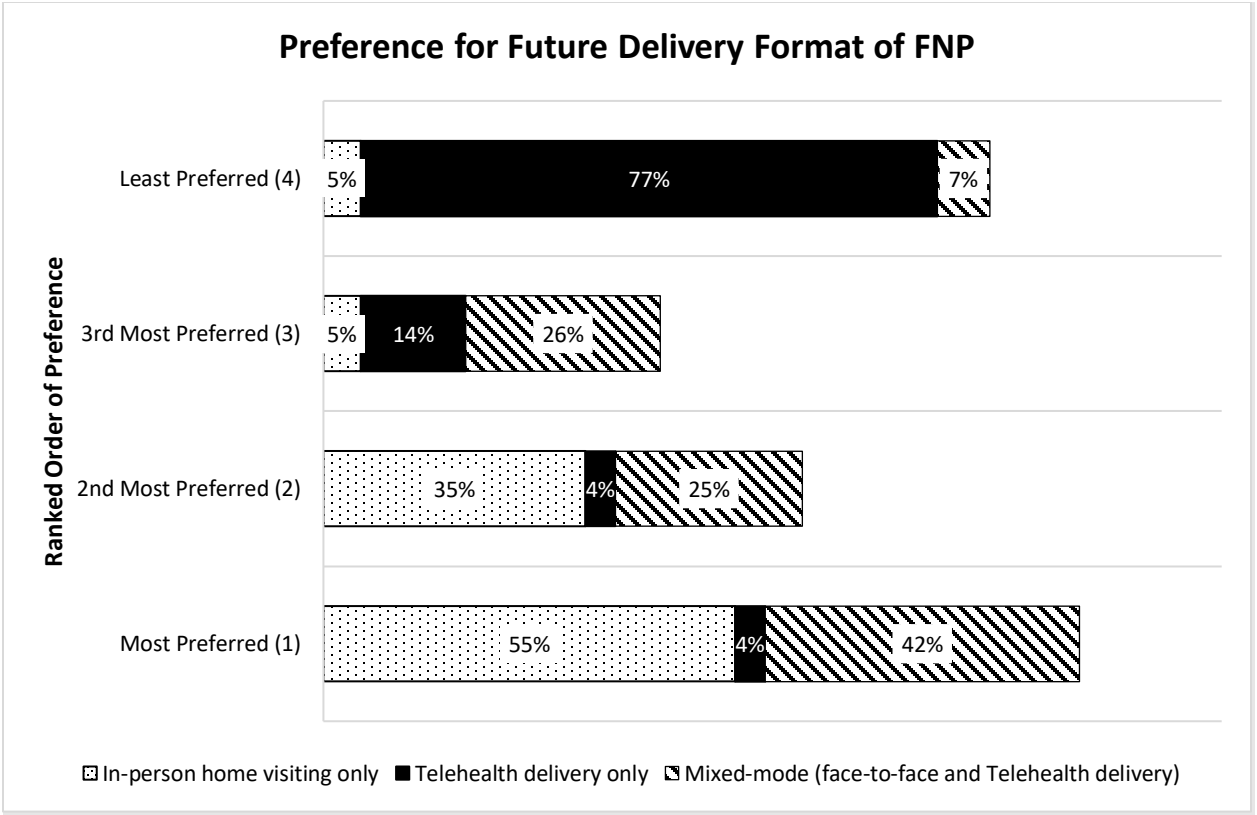

Figure 7. Ranked order of preference for future delivery formats in FNP, reported by family nurses.

Reflecting on their experiences, some family nurses felt that a large proportion of clients had adapted and engaged well to remote delivery over the course of the pandemic. They commented that most clients were comfortable with technology and familiar with using a range of platforms for communication. Mixed-mode delivery was regarded as an effective option, but family nurses emphasised that the provision of this should first and foremost be dependent on clients' needs and their level of vulnerability.

In addition, some nurses felt a hybrid delivery model was beneficial for improved time management. Family nurses referred to benefits such as reduced work-related travel in between visits or meetings and limiting the time lost due to missed appointments. Improved access to clients living in more rural or remote areas was also perceived as a potential benefit of hybrid-delivery.

> "So I'd normally do 50 to 100 miles a day and it was a lot of driving, so that would mean that when I got back from my last visit, maybe it would be nearly five o'clock, but then I'd still have to write up all the visits that I did that day and I didn't really have any time. So I ended up doing at least an hour but probably more like two hours unpaid overtime a day, to be honest, because you just never had time to write everything up that you had to do" – [Family Nurse, East]

Of family nurses who disagreed that FNP could be delivered effectively using a multi-faceted or hybrid approach most frequently commented that they had clients who were uncomfortable or had difficulties engaging via telehealth formats. They also felt strongly that therapeutic relationships were more challenging to establish, requiring more time and effort during remote engagement compared with in-person contact.

In-person communication and interaction were perceived to be more valuable as family nurses felt it was easier to explore client's feeling and interpret body language or other subtle signs indicative of issues of difficulties. In terms of programme delivery, assessments and clinical observations were regarded as more challenging via telehealth. Family nurses also felt that key aspects of the programme, such as PIPE, were considerably more difficult to conduct remotely.

Overall, family nurses were mindful of the challenges and barriers some clients might face during remote engagement. In the survey, 69% of family nurses agreed to some extent (somewhat agree 36% and strongly agree 34%) that the use of telehealth in FNP could lead to the exclusion of clients due to a lack of technological access (Appendix 2); 17% disagree and 13% neither agreed nor disagreed. However, some family nurses also viewed the increased use of telehealth in FNP as an opportunity to teach clients about accessing and engaging with other essential services online.

All clients interviewed wanted the service to return to some degree of face-to-face delivery. Many clients were missing some of the reassurances offered from home visits such as having their baby weighed or having a family nurse see their child's development in-person. Some clients felt that virtual delivery may be beneficial at times, including when managing other responsibilities, for convenience or for impromptu contacts. One client also expressed a desire to occasionally meet their family nurse in-person outside of the home (e.g., outdoor walk or other venue).

> "Do you know if COVID wasn't a thing, I would probably always opt to have her come here. I like having her around, she is a very positive person she is, everything is the bright side of life… When she is here, it kind of puts a good mood back into the house because some days it's hard to be bothered during all this, and every time we speak to her we just kind of walk out with a fresh outlook on how things are just now." – [Client, North, enrolled during COVID-19]

> "Hopefully, I think more home visits. I'd like to do maybe half and half. Like once it's all over with and died down. Yeah, I wouldn't mind doing half and half. I quite enjoy the video calls on days like when you can't really be bothered having someone in or you just want a quick call, if you've got something on, on those days but yeah, it would be so much nicer just to have her in and just be able to speak to her face-to-face." – [Client, West, enrolled during COVID-19]

A few clients also suggested that the age range of the FNP programme should be expanded to older groups. One client felt raising the age limit of the programme to 22 years would be helpful.

> “I think that the age [range of the programme] should be risen a wee bit, because I think it is to do with people from under 16 to 20. I think that maybe up to 22 would probably be good, I feel like to me 22 is still a young mum, I feel like they should have that extra support.” – [Client, West, enrolled during COVID-19]

Many of them still thought that telehealth could be used in exceptional circumstances as a way of still keeping clients engaged in the programme, for example: during bad weather conditions, if clients were away, for convenience and for ad hoc calls. Some family nurses thought that telehealth would be good for different stages of the programme, for example during the pregnancy and antenatal phases, or when the client is preoccupied with full-time education or work. Many family nurses felt that it would be good at reducing the time and costs associated with travelling.

While clients and family nurses acknowledged a number of benefits and potential for the use of telehealth in FNP, both groups agreed that the programmes value largely resided in its intensive home visiting format and the ability to build strong face-to-face therapeutic relationships. As such, many felt it would be acceptable for the programme to be delivered as a hybrid model as long as a significant core portion of home visiting and face-to-face contact remained in order to deliver key aspects FNP and to retain the quality and value of the programme for all clients.

5 Conclusions

This evaluation examined how FNP is being currently delivered during the COVID-19 pandemic in order to assess how the current mode of delivery has impacted family nurses, clients and partnership working. It also investigated the types of challenges facing the service at the moment, and what lessons can be learned for the future delivery of the service.

It was clear that both family nurses and clients were not fully in favour of the current remote delivery when compared to the pre-covid in home visiting. Many family nurses felt strongly that FNP was developed as a home visiting programme and its success is largely dependent on it being delivered as such. Family nurses felt that FNP thrives on family nurses building therapeutic relationships with their clients. However, relationship building was found to be negatively impacted by remote delivery of the programme. Family nurses reported that it took longer and required more effort to establish a strong therapeutic relationship with clients remotely.

It was apparent that supportive settings contribute to the uptake and successful use of telehealth. Aside from few initial issues with equipment at the outset of COVID-19 pandemic, family nurses generally felt well equipped and supported to conduct their work remotely. Organisational and team-level support are particularly key to this. Organisational level support and training were accessible and available in a range of formats (e.g., local software leads or contacts, training webinars, online resources). Team-level support can provide opportunities for peer-learning and training which family nurses may find more accessible and specific to their roles. External support resources were also effective and valued by family nurses. These included international guidance documents from the Nurse Family Partnership (NFP) and organisations such as UNICEF.

However, telehealth is not a one-size fits all solution for clients. While remote delivery allowed family nurses to continue to provide essential and invaluable support to clients during the COVID-19 pandemic it is clear that this type of service delivery is not a sustainable option for some clients. Some clients were uncomfortable with video calls and felt anxious or self-conscious on camera. Family nurses felt that clients were becoming fatigued with ongoing telehealth contacts in place of home visiting and were expressing stronger preferences for face-to-face contact over time.

For more vulnerable clients, it was perceived that they were at increased risk of having undetected concerns, becoming disengaged or feeling unsupported from telehealth contacts. Groups most at risk likely include clients with poor mental health or mental illness, those at risk of domestic violence, families with child protection concerns, minority groups such as migrants, and clients who speak English as a second language. There were concerns among family nurses about the impact of digital literacy and digital exclusion and potential inequalities emerging in the access to the service for many of their clients, especially the most vulnerable.

Another aspect of FNP that was most affected by remote delivery was child assessment and observation of the home environment. Survey, focus group and interview findings all highlighted a significant negative impact on the ability of family nurses to effectively conduct assessments and observations using telehealth.

External partnership working also appeared to have been impacted by the COVID-19 pandemic. Many agencies were reported to have limited operation, which created challenges for onward referrals. This meant family nurses had to provide more support to clients. In spite of the challenges of remote delivery, both family nurses and clients expressed the desire that telehealth could play some role in future delivery, for instance, to fill gaps in communication or follow-up concerns and that mixed model (hybrid) programme delivery could be appropriate in certain instances.

5.1 Limitations

Data collection of both qualitative and survey data were undertaken remotely due to COVID-19. It is possible that this approach to data collection might have excluded the perspectives of the most vulnerable clients of the FNP programme because of digital exclusion. Also, online recruitment challenges during COVID-19 meant the sample size used for the evaluation was lower than originally anticipated. Information governance requirements also prevented personal level data and demographics from being captured, this information could have been used to further contextualise the findings.

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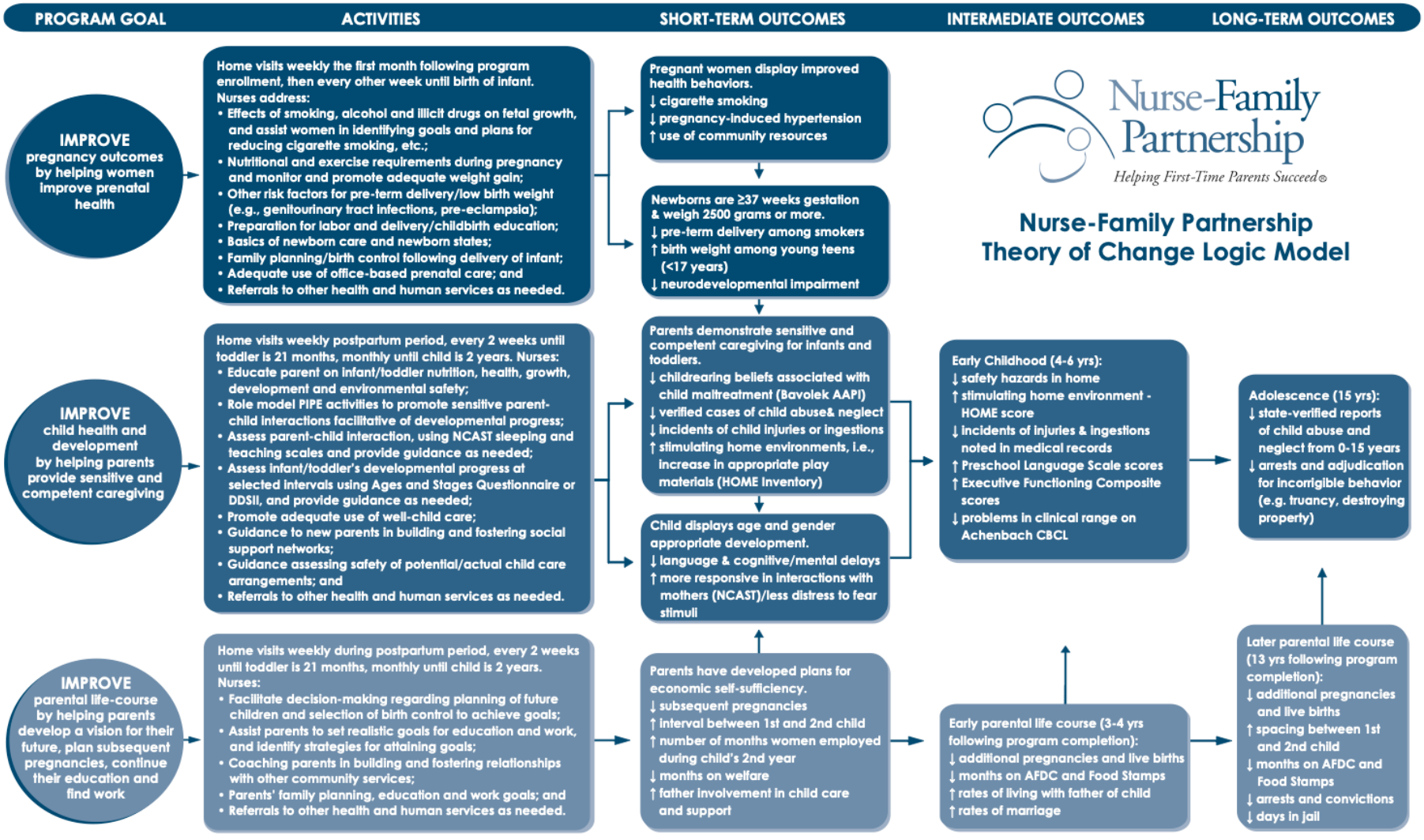
Appendix 1. Original FNP Logic Model



Appendix 2. Marked Up Questionnaire

- Total number of respondents = 90 Family Nurses.
- All responses completed online.
- Questions and responses are group under the following domain headings:
    - *Visiting Patterns/Contacts; Changes to Service Delivery Following COVID-19 Outbreak; Home Visiting During the COVID-19 Outbreak; Remote Programme Delivery and Perceptions of Telehealth; Therapeutic Relationship; Identification of Concerns; Referrals; Assessments and Observations using Telehealth; Training, Guidance and Support; Clinical Supervision; Communication with Colleagues; External Partnership Working; Additional Comments - FNP Service Delivery During COVID-19.*
- Data collection period: 19 January 2021 – 10 March 2021.

Visiting Patterns/Contacts

Q1 - How often were you able to provide the expected number of visits/contacts, based on fidelity, to clients prior to the COVID-19 restrictions?

	Item	Percentage
1	Always	21%
2	Most of the time	64%
3	About half the time	9%
4	Sometimes	4%
5	Never	1%

Q2 - Since the COVID-19 restrictions have come into place, how often, if at all, are you able to provide the expected number of visits/contacts (i.e., virtual or face to face), based on fidelity, to clients now?

	Item	Percentage
1	Always	7%
2	Most of the time	59%
3	About half the time	20%
4	Sometimes	9%
5	Never	3%
6	Same as before	2%

Q3 - How would you describe the overall level of FNP additional visits/contacts (i.e., more than fidelity) you were providing clients, prior to the COVID-19 restrictions?

	Item	Percentage
1	Far above average	3%
2	Somewhat above average	25%
3	Average	67%
4	Somewhat below average	4%
5	Far below average	0%

Q4 - Since the COVID-19 restrictions have come into place, how would you describe the overall level of additional visits/contacts (i.e., virtual or face to face) you are now providing, over and above 'normal' visiting patterns?

	Item	Percentage
1	Far above average	2%
2	Somewhat above average	20%
3	Average	52%
4	Somewhat below average	15%
5	Far below average	4%
6	Same as before (pre-COVID-19)	7%

Changes to the Service Following the Covid-19 Outbreak

Q5 - To what extent, if at all, do you think the following factors have changed since the COVID-19 outbreak started?

	Item	Decreased significantly	Decreased slightly	Stayed the same	Increased slightly	Increased significantly
1	Client engagement with the FNP service	9%	46%	32%	13%	0%
2	Client retention	1%	18%	74%	6%	1%
3	Overall client vulnerability	2%	2%	7%	42%	47%
4	Overall number of vulnerable clients	0%	0%	20%	47%	33%
5	Clients' abilities to achieve personal goals and outcomes	39%	44%	10%	3%	3%
6	Personal workload	1%	7%	26%	45%	21%
7	Complexity of caseload	0%	2%	23%	45%	30%
8	The overall effectiveness of local FNP service delivery in your Health Board	7%	34%	44%	11%	3%
9	The overall efficiency of local FNP service delivery in your Health Board	6%	22%	54%	17%	1%
10	Your team's ability to achieve intended programme outcomes	16%	40%	39%	3%	2%

Home Visiting During the Covid-19 Outbreak

Q6 - Have you continued to offer home visits during the COVID-19 outbreak?

	Item	Percentage
1	Yes	100%
2	No	0%

Q7 - What proportion of your caseload have you offered home visits to during this time?

	Item	Percentage
1	100%	29%
2	99-75%	15%
3	74-50%	20%
4	49-25%	22%
5	25-1%	13%
6	None	0%

Q8 - When a home visit was offered to a client, how often was this offer taken up by the client?

	Item	Percentage
1	Always	41%
2	Most of the time	51%
3	About half the time	5%
4	Sometimes	3%
5	Never	0%

Q9 - Please state the main reasons given by clients who have declined the offer of a home visit during COVID-19, if any?

	Summary of Most Common Text Responses
1	Concerns about transmitting or contracting COVID-19
2	Self-isolating clients/family members
3	Vulnerable and shielding clients/family members
4	Other family members declining visitors due to concerns about COVID-19
5	No declines or very small proportion of declines overall

Remote Programme Delivery And Perceptions Of Telehealth

Q10 - Do you have previous experience of using the following telehealth technologies with FNP clients prior to the COVID-19 outbreak?

	Item	Yes	No	Don't know
1	Telephone calls	92%	8%	0%
2	WhatsApp	31%	69%	0%
3	Mobile apps	17%	81%	2%
4	Attend Anywhere	9%	91%	0%
5	Near Me	7%	92%	1%
6	Video Call (other)	11%	89%	0%
7	Other (please specify)	8%	86%	5%

Q11 - Since the COVID-19 restrictions have been introduced, how frequently do you use the following modes to deliver the FNP service?

	Item	Always	Most of the time	About half the time	Sometimes	Never
1	Telephone calls	5%	23%	33%	38%	1%
2	WhatsApp	3%	8%	3%	31%	56%
3	Mobile apps	0%	0%	3%	18%	79%
4	Attend Anywhere	1%	12%	22%	24%	40%
5	Near Me	1%	18%	24%	36%	21%
6	Video Call (other)	0%	9%	8%	18%	65%
7	Text messaging	21%	23%	11%	27%	17%
8	Home visits	1%	19%	34%	45%	1%
9	Other (please specify)	0%	8%	12%	15%	65%

Q12 - To what extent do you agree with the following statements?

	Item	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
1	I feel comfortable delivering the FNP service using Telehealth	17%	48%	14%	15%	6%
2	I am familiar with the technologies required to deliver FNP remotely	46%	48%	5%	1%	0%
3	I would like to continue using Telehealth to deliver FNP in the future	11%	46%	13%	15%	14%
4	I have access to adequate training and resources for using Telehealth within FNP	26%	45%	14%	14%	0%
5	I have access to the necessary tools and equipment for remote service delivery of FNP	39%	40%	8%	10%	2%

Q13 - How would you rate the quality of your overall clinical observations when using remote delivery, compared with face-to-face visits?

	Item	Percentage
1	Much better	0%
2	Somewhat better	1%
3	About the same	6%
4	Somewhat worse	76%
5	Much worse	17%

Q14 - Please select from the following to indicate your preference for future delivery of the FNP service [Most (1) - Least (4) preferred]:

	Item	**Most Preferred Option** (1)	(2)	(3)	**Least Preferred Option** (4)
1	In-person home visiting only	55%	35%	5%	5%
2	Telehealth delivery only	4%	4%	14%	77%
3	Mixed-mode (face-to-face and Telehealth delivery)	42%	25%	26%	7%
4	Other (please specify)	8%	23%	15%	54%

Q15a - In your opinion, do you think FNP could be delivered effectively to clients using a multi-faceted approach, such as face to face and telephone without compromising the essence or outcomes of the programme?

	Item	Percentage
1	Yes (please explain why)	68%
2	No (please explain why)	32%

Q15b_TEXT - Yes (please explain why) and Q15c_TEXT – No (please explain why). Summary of most common text responses:

	Responses for 'Yes (please explain why)'	Responses for 'No (please explain why)'
1	Provides convenient options to maintain engagement with clients who have other commitments (e.g., work or education).	Many clients uncomfortable or have difficulties engaging via telehealth
2	Most clients have adapted and engaged well with telehealth delivery.	Therapeutic relationship is harder to establish
3	Mixed-mode delivery is effective but option for remote delivery should be dependent on client level of vulnerability.	Communication during face-to-face interaction is much more valuable. Easier to explore feelings, body language and subtle signs that may indicate a larger issue.
4	Mixed-mode delivery helps to save time and costs associated with work-related travel and missed appointments. Allows better time management for FNs.	Assessments and clinical observations are more challenging
5	Improved access for clients living in rural areas	Difficulties conducting DANCE and PIPE activities as well as IPV and other assessments via telehealth

Q16 - To what extent do you agree with the following statements? The use of Telehealth (e.g. Attend Anywhere/Near Me or telephone calls etc.) in delivering the FNP service will lead to:

	Item	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
1	Increased communication and connection with clients	5%	38%	24%	25%	8%
2	Lower workloads for FNP nurses	10%	29%	19%	24%	19%
3	Greater client self-efficacy	4%	31%	35%	23%	8%
4	Clients having more time to achieve personal goals and programme outcomes	1%	14%	39%	36%	10%
5	Higher client retention	1%	26%	35%	24%	14%
6	Improved long-term outcomes for clients and children	2%	11%	37%	29%	21%
7	A client preference for Telehealth communication in place of home visiting	5%	12%	29%	29%	25%
8	Exclusion of clients due to a lack of technological access	34%	36%	13%	13%	4%
9	Improvements in the quality of assessment carried out by FNP nurses	0%	4%	20%	30%	46%

Therapeutic Relationship with Clients

Q17 - Overall, has your relationship with clients got better, worse or stayed the same since the COVID-19 outbreak started?

	Item	Percentage
1	Much better	0%
2	Somewhat better	13%
3	About the same	64%
4	Somewhat worse	21%
5	Much worse	1%

Identification Of Concerns

Q18 - Do you feel that clients are contacting you more or less frequently with any issues and concerns following the COVID-19 outbreak?

	Item	Percentage
1	Much more frequently	12%
2	Somewhat more frequently	33%
3	About the same as before	45%
4	Somewhat less frequently	10%
5	Much less frequently	0%
	Total	84

Q19 - Since the COVID-19 restrictions began, do you feel that you are able to identify needs and/or any issues that your clients might have, compared with previous ways of working (pre COVID-19)?

	Item	Percentage
1	Definitely yes	2%
2	Probably yes	27%
3	Might or might not	36%
4	Probably not	31%
5	Definitely not	4%
	Total	84

Referrals

Q20a - Overall, have you been able to submit referrals successfully during the COVID-19 outbreak?

	Item	Percentage
1	Yes	57%
2	No (Please specify, why not and what agencies?)	43%
	Total	84

Q20b_TEXT - No (Please specify, why not and what agencies?). Summary of most common text responses:

1	Many services had limited operation due to COVID-19 or were not operating at all in some areas.
2	Difficulties accessing services due to confusion around which ones were still operating, mixed communication with other agencies.
3	Services were not accepting referrals or were unresponsive to requests.
4	Challenges obtaining mental health support.
5	Services not providing face-to-face support which could lead to client non-engagement or inadequate level of support.

Total count of agencies referred to for Q20b_TEXT - No responses:

Local Authority

Agency	Count
Nursery	1
Social Work	1
Housing	5
Money advice	2

Healthcare

Agency	Count
Childsmile	1
Mental health	9
Learning disability	1
Speech and Language	1
Contraceptive and sexual health services	4
GP	2
Postnatal checks	2
Paediatricians	1

Parent/child groups

Agency	Count
Groups for mums	2
Childcare	2
Playgroups	1

Third Sector

Agency	Count
Charity organisation’s	9

Other

Agency	Count
Work experience/employment	2

Total Count = 46

Assessments And Observations Using Telehealth

Q21 - How would you rate the following aspects of delivering FNP when using Telehealth in comparison with face-to-face visits?

	Item	Much better	Somewhat better	About the same	Somewhat worse	Much worse
1	To what extent do you feel able to make observations of the child using Telehealth when compared with face-to-face visits?	0%	0%	6%	65%	29%
2	To what extent do you feel that you are able to carry out child assessments effectively using Telehealth when compared with face-to-face visits?	0%	0%	14%	63%	23%
3	How would you rate your overall ability to assess clients' home environments using Telehealth when compared with face-to-face visits?	0%	0%	2%	52%	46%

Training, Guidance And Support

Q22a - Have you been provided with any guidance to support your working following the COVID-19 outbreak?

	Item	Percentage
1	Yes (please provide details)	90%
2	No	4%
3	Unsure	6%

Q22b_TEXT - Yes (please provide details). Summary of most common text responses:

	Category	Responses
1	*COVID-19 Risk Mitigation and Health & Safety Guidance*	Conducting essential visits, PPE, COVID-19 risk assessment guidance
2	*Clinical Training*	Scottish Government clinical guidance IPV training (telehealth-specific),
3	*FNP-Specific*	National FNP guidance; supervisory support for home visiting in accordance with guidelines,
4	*IT Training*	Near Me and Attend Anywhere guidance,
5	*Other*	Self-care resources and guidance, local Health Board guidance

Q23a - Have you been offered any training opportunities to support your working following the COVID-19 outbreak?

	Item	Percentage
1	Yes (please provide details)	68%
2	No	23%
3	Unsure	10%

Q23b_TEXT - Yes (please provide details). Most common text responses:

	Category	Responses
1	*IT Training*	Training to use telehealth software/hardware, mainly NHS Near Me/Attend Anywhere, and Microsoft Teams
2	*FNP-specific*	How to deliver PIPE, DANCE and FNP facilitators via telehealth
3	*Clinical*	Child protection, IPV training, breastfeeding,

Clinical Supervision

Q24 - Please rate the following factors in terms of receiving/providing supervision via Telehealth:

	Item	Extremely good	Somewhat good	Neither good nor bad	Somewhat bad	Extremely bad	Total
1	Overall experience	31%	45%	18%	6%	0%	83
2	Relationship with supervisor	53%	28%	17%	2%	0%	83
3	Quality of supervision	54%	31%	12%	2%	0%	83
4	Level of support	52%	35%	9%	2%	1%	82

Q25a - Do you think this model of supervision could continue successfully in the future?

	Item	Percentage
1	Yes	70%
2	No (if not, why not?)	30%

Q25b_TEXT - No (if not, why not?)

	Summary of Most Common Text Responses
1	Less connection with colleagues: Family nurses do not feel well connected to colleagues during remote supervision and meetings.
2	Privacy concerns whilst home working or in shared office space. Distractions whilst working from home disrupts meetings also.
3	Internet connectivity issues disrupt the flow of conversations.
4	Quality of supervision is affected. Communication is richer in person. Better able to identify non-verbal ques and body language, conversation flow is more natural and personable.
5	A mixture of face-to-face and remote supervision would be acceptable.

Q26 - Has supervision of FNP nurses during the COVID-19 outbreak continued as per the core model?

	Item	Percentage
1	Yes	95%
2	No	5%

Q27 - Please add in any comments you wish to make about your experience of receiving/providing supervision via Telehealth during COVID-19:

	Summary of Most Common Text Responses
1	Supervision via telehealth has worked well overall and comparable to face-to-face meeting. Family nurses feel well supported. Microsoft Teams works well.
2	Remote delivery saves travel time and grants flexibility in regard to location
3	Preferences expressed for face-to-face supervision instead of telehealth as level of connection is not the same. Some felt relationships had been impacted by ongoing online communication.
4	Less distractions during online supervision, meetings are more focussed
5	Impacted negatively by connectivity and technology problems

Communication With Colleagues

Q28 - How has the quality of communication with fellow staff members and colleagues been following the COVID-19 outbreak, compared to before?

	Item	Percentage
1	Much better	0%
2	Somewhat better	2%
3	About the same	26%
4	Somewhat worse	50%
5	Much worse	21%

External Partnership Working

Q29 - How has the quality of communication with external partner agencies been following the COVID-19 outbreak, compared to before?

	Item	Percentage
1	Much better	0%
2	Somewhat better	9%
3	About the same	29%
4	Somewhat worse	51%
5	Much worse	11%

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