

FINAL REPORT

Consumer Satisfaction with General Practice Nurses

Prepared for:

New Zealand College of Primary Health Care Nurses
New Zealand Nurses Organisation



Submitted by:

Associate Professor Elizabeth Halcomb,
Associate Professor Yenna Salamonson &
Dr Kathleen Peters



School of Nursing & Midwifery
University of Western Sydney

CONTACT PERSON

A/Professor Elizabeth Halcomb
School of Nursing and Midwifery,
Campbelltown Campus,
University of Western Sydney
Locked Bag 1797, Penrith NSW 2751
Tel + Int 61 2 4620 3344 Fax + Int 61 2 4620 3161
Email: e.halcomb@uws.edu.au

ACKNOWLEDGEMENTS

The project team for this evaluation comprised Associate Professor Elizabeth Halcomb, Associate Professor Yenna Salamonson & Dr Kathleen Peters, University of Western Sydney.

The project team wishes to thank the following people for their support in the conduct of this evaluation and the production of this final report:

- Special thanks to the Australian Practice Nurses Association (APNA) for agreement to use the tool that was designed as part of their previous work⁽¹⁾.
- Thanks to Ms Larni Kelleher who undertook the telephone interviews.
- Finally, thanks also to the practice nurses and consumers who so willingly gave their time to provide an insight into their experiences and participate in this project.

CONTENTS

ACKNOWLEDGEMENTS.....	2
ABBREVIATIONS	5
1. EXECUTIVE SUMMARY.....	6
1.1 INTRODUCTION.....	6
1.2 BACKGROUND	6
1.3 METHODS	7
1.4 SUMMARY STATEMENTS	7
1.5 RECOMMENDATIONS & FUTURE OPPORTUNITIES	7
2. INTRODUCTION	8
3. METHODOLOGY.....	10
3.1 RESEARCH DESIGN.....	10
3.2 EVALUATION PLAN & METHODOLOGY.....	10
3.3 ETHICAL ISSUES.....	10
3.4 PARTICIPANT RECRUITMENT.....	11
3.5 DATA COLLECTION.....	11
3.5.1 Consumer Survey.....	11
3.5.2 Consumer Interviews	11
3.6 DATA ANALYSIS	11
4. FINDINGS	12
4.1 INTRODUCTION.....	12
4.2 PRACTICE & NURSE DEMOGRAPHIC DATA	12
4.3 CONSUMER SURVEY DATA.....	15
<i>Practice Nurse Roles.....</i>	<i>19</i>
<i>General Practice Nurse Satisfaction (GPNS) scale.....</i>	<i>21</i>
<i>Perceived Health Status</i>	<i>23</i>
4.4 CONSUMER INTERVIEW DATA.....	25
<i>Satisfaction with practice nurses: “they are first class”</i>	<i>26</i>
<i>Confidence with practice nurses: “she knows what she’s doing”</i>	<i>26</i>
<i>Confusion around the practice nurse role: “when you say a practice nurse, I’m a little bit unsure what you mean”</i>	<i>27</i>
<i>Appreciation of Practice Nurse accessibility.....</i>	<i>28</i>
5. DISCUSSION & RECOMMENDATIONS.....	29
5.1 IMPLICATIONS FOR PRACTICE.....	29
5.2 IMPLICATIONS FOR POLICY	30
7. CONCLUSION	30
REFERENCES	31

LIST OF TABLES

TABLE 1. LOCATION OF GENERAL PRACTICE	12
TABLE 2. PRACTICE NURSE DEMOGRAPHICS.....	13
TABLE 3. PRACTICE NURSE HIGHEST EDUCATIONAL QUALIFICATION.....	15
TABLE 4. PRACTICE NURSE EMPLOYMENT CLASSIFICATION	15
TABLE 5. PRACTICE NURSES AND CONSUMERS PER PARTICIPATING PRACTICE	16
TABLE 6. CONSUMER DEMOGRAPHICS	17
TABLE 7. CONSUMER CHARACTERISTICS.....	17
TABLE 8. ACCESS TO THE PRACTICE NURSE.....	19
TABLE 9. REASON FOR VISIT	19
TABLE 10. PROCEDURES PERFORMED BY THE PRACTICE NURSE	20
TABLE 11. TASKS PERFORMED BY THE PRACTICE NURSE	20
TABLE 12. GPNS SCALE ITEM ANALYSIS.....	21
TABLE 13. PARTICIPANT CHARACTERISTICS AND TOTAL GPNS SCORE	22
TABLE 14. PARTICIPANT CHARACTERISTICS AND TOTAL HEALTH SCORES.....	23
TABLE 15. THEMES & SUB-THEMES	25

LIST OF FIGURES

FIGURE 1. SEMI-STRUCTURED INTERVIEW TOOL	11
FIGURE 2. NUMBER OF NURSES PER PRACTICE.....	12
FIGURE 3. PRACTICE NURSE AGE	13
FIGURE 4. YEARS AS QUALIFIED NURSE	13
FIGURE 5. YEARS AS A PRACTICE NURSE.....	14
FIGURE 6. NUMBER OF PRACTICE EVER WORKED IN	14
FIGURE 7. HOURS WORKED PER WEEK.....	14
FIGURE 8. DISTRIBUTION OF CONSUMER AGE.....	18
FIGURE 9. DISTRIBUTION OF MEAN GPNS SCALE SCORES PER PRACTICE	21
FIGURE 10. MEAN GPNS SCORES AND NUMBER OF PRACTICE NURSE VISITS.....	23
FIGURE 11. MEAN HEALTH STATUS AND NUMBER OF PRACTICE NURSE VISITS	24
FIGURE 12. MEAN GPNS SCORE AND PERCIEVED HEALTH STATUS.....	25

ABBREVIATIONS

APNA	Australian Practice Nurses Association
BSMC	Better, Sooner, More Convenient primary health care initiative
DHB	District Health Board
GP	General Practitioner
GPNS	General Practice Nurse Satisfaction scale
MoH	New Zealand Ministry of Health
NH&MRC	National Health & Medical Research Council
NZNO	New Zealand Nurses Organisation
PHC	Primary Health Care
PHO	Primary Health Care Organisation
PN	Practice Nurse

1. EXECUTIVE SUMMARY

1.1 Introduction

The growing burdens of chronic illness and population aging are internationally changing the face of health care. A key area of change is the growing importance of primary care and the expansion of the nursing role in the general practice setting. “NZNO advocates models of care that fully utilises nursing’s holistic scope of practice and nurses’ expert knowledge of when to refer to other health professionals, as a complement to, not substitute for, medical care”⁽²⁾(pg 1).

The 2006/07 New Zealand Health survey reports that nearly all adults (93.3%) identified a primary care provider and most (84.7%) had been seen by a health practitioner from this provider in the previous year⁽³⁾. The same survey reported that nearly half (40.8%) of New Zealand adults had seen a practice nurse during this time and that the number of consumers seeing a practice nurse without seeing a GP was increasing⁽³⁾. These data demonstrate that more than three times the number of people receiving acute services are receiving care from general practices⁽⁴⁾.

An important consideration in any healthcare reform or service development is the consumer perspective^(5, 6). Patients are known to have different views on satisfaction with care than the clinicians who deliver that care⁽⁷⁾. Consumer satisfaction is important as it has been reported to impact upon not only consumer compliance with treatment, but also health outcomes⁽⁸⁾. To date, limited data exists to demonstrate consumer satisfaction with general practice nurses⁽¹⁾. Of the data that has been reported, some reports are based on the perceptions of consumers who have not received practice nurse services and others on surveys that contain only limited items about practice nurses⁽¹⁾. It is timely, therefore, to undertake a study to explore the satisfaction of consumers who have received services delivered by practice nurses. These data are vital to both inform health system design and provide critical feedback to nurses to guide professional development.

This final report provides details of the project aims, methodology, study findings and future directions. Encouragingly, this project provides an exciting and enabling picture of practice nursing. Consumer participants feel that nurses are accessible, competent and knowledgeable. They are largely satisfied with the services provided by practice nurses. In particular, they highly value the practice nurses’ ability to explain issues, put them at ease and make them feel valued.

Consumer satisfaction was not significantly related to consumer demographics. Indeed, the only factor significantly associated with satisfaction was consumers perceived health status since last year. Those who felt worse than last year were less satisfied than those who felt the same or better than the previous year. Whilst the number of times a consumer had previously seen a practice nurse tended to have a positive correlation to satisfaction this was not statistically significance and reached a plateau after 12 visits.

Recommendations from this project include: ongoing focused involvement of consumers in providing input into service delivery in general practice; regular opportunities for nurses to seek structured performance / service feedback from consumers as well as members of the multidisciplinary team; and the need to promote the role of primary care nurses and the breadth of their scope of practice within the community.

1.2 Background

In 2009, the Australian Practice Nurses Association developed and evaluated a tool to measure patient satisfaction in general practice⁽¹⁾. As the first tool of its kind a key recommendation for further research was to trial this tool internationally. At the same time, the NZNO College of Primary Care Nurses was looking to explore this area. Therefore, this project was conducted to;

- a) Evaluate consumer satisfaction with general practice nurses in New Zealand.
- b) Provide feedback to individual general practice nurses about consumer satisfaction with the services that they provide.
- c) Provide further data to assess the properties of the tool.

1.3 Methods

This project used a mixed methods approach to achieve the project aims. Data was collected via a survey (n=1505) and interviews (n=18) from consumers who had received services from one of 89 participating practice nurses from 20 practices during the study period.

1.4 Summary Statements

The study data and key findings are described in detail in Section 2 of this report. The summary below highlights the main outcomes;

- Consumers see practice nurses as being accessible. They view the practice nurse as being the right person in the right place at the right time to support their health and wellness.
- Practice nurses frequently perform a number of roles or tasks during their interactions with patients.
- Consumers appreciate the degree of communication with the practice nurse that provides explanations, puts them at ease and makes them feel as if they are valued.
- Satisfaction with the practice nurse was not significantly related to language spoken, age, gender, number of visits to the nurse, insurance status or employment type. Although there was a clear trend towards increasing satisfaction as the number of practice nurse visits increased, this seemed to plateau for those patients who have seen the nurse more than 12 times.
- The more often that consumers visit the practice nurse, the lower their perceived health status.
- Consumers who report feeling better than last year are much more satisfied than those who feel the same or worse than last year.
- Despite consumers' confidence in the practice nurses' knowledge and competence, consumers wanted to retain the right to choose between seeing a GP or a PN. This may be related to system factors such as a lack of nurse prescribing that requires consumers to be seen by a GP for prescriptions.

1.5 Recommendations & Future Opportunities

Understanding the consumer perspective of health services is vital in ensuring that those services best meet the needs of the community. The findings of this study demonstrate the overall high regard that consumers have for nurses in general practice. Several recommendations for policy and practice stem from this research, namely;

- Ongoing focused involvement of consumers in evaluating service delivery in general practice should be considered a key component of the primary health care system.
- Nurses should be encouraged to seek regular structured performance and service feedback from consumers as well as members of the multidisciplinary team.
- Given the evolving context of primary care, strategies for community education about the primary care nursing role and the scope of nurses' practice need to be embedded in the change processes.

- Nurses should be supported to practice at the fullest extent of their scope in order to provide the widest range of services to consumers.
- Further research into consumer satisfaction with general practice nurses should explore;
 - Vulnerable and marginalized groups, such as those speaking languages other than English, those with low health literacy, those with chronic and complex disease.
 - The impact of health literacy on consumer satisfaction.
 - The relationship between consumer satisfaction and other nurse sensitive outcome indicators.

2. INTRODUCTION

Historical precedents, over the past decade, and a positive policy environment have actively driven the direction of Primary Health Care (PHC) development. The PHC Strategy⁽⁹⁾, as a seminal document, set a vision aimed at enabling people to be part of primary health care services that keep them well, are easily accessible and co-ordinate their ongoing care. Primary Health Organisations (PHOs) were to be the local structures to achieve this and PHC nurses were described as “crucial to implementation” ⁽⁹⁾(p. 23), and this, alongside the strategy’s population focus and greater range of intended services clearly implied a greater need for skilled, knowledgeable registered nurses. This required clarification of the roles and responsibilities, knowledge and skills, career frameworks and appropriate employment arrangements⁽⁹⁾.

In line with this PHC strategy the New Zealand Ministry of Health (MoH), through an Expert Nursing Advisory Group, facilitated a national approach to primary health care nursing which addresses capabilities, responsibilities and areas of professional practice, as well as setting educational and career frameworks and exploring suitable employment arrangements⁽¹⁰⁾. Due to a lack of traction enabling PHC nurses to deliver upon the intended objectives of the strategy, this Expert Advisory Group provided both a clear critique and series of recommendations to the MoH, District Health Boards (DHB’s) and the rapidly evolving PHOs identifying the key structures required to mobilise the potential of PHC nursing. A vision and goals as clearly set out focused on how primary health care nursing could maximize its unique contribution to health outcomes of individuals, families, whanau and population groups, reducing inequalities in these groups.

Across 2001-2007 a longitudinal study was undertaken by the Health Services Research Centre commissioned by the MoH. This research aimed to explore the development of PHC Nursing since the PHC Strategy was released in 2001, and particular focused on to what extent the intentions of the strategy, as they applied to nurses, had been met⁽¹¹⁾. General findings revealed that there had been substantial growth in some nurses roles and capability, especially in the management of chronic conditions and in working with people in underserved and vulnerable groups. Where the role of the practice nurse had developed it was underpinned by two influencing factors. Firstly, was where the PHO had recognised the intention of the Strategy adopting a population health approach and new models of care, with increased collaboration between PHC teams, including evidence of DHB’s and PHOs actively developing the nursing workforce. Secondly was the PHOs recognition of the potential of additional funding and associated specific services such as ‘*Care Plus*’ and ‘*Services to Improve Access*’ services, which were largely nurse- led.

This research also identified a significant array of barriers to expansion of the practice nurse role to include funding models, heavy workloads, lack of educational opportunities and lack of nursing leadership and mentors as some examples⁽¹¹⁾. In summary this research provided a series of implications for policy and practice incorporating: funding, increasing nursing capacity, education to improve capability, leadership, mentorship and governance, and focused recruitment and retention to embed these.

Concurrently closely aligned to the release of this research was the new direction in health policy led by the newly elected National Government and enacted by the MoH in 2009. This direction is described in the Implementing NZ Health Strategy document⁽¹²⁾. The new Government identified the need to make significant improvements to deliver a more personalized primary health care system that provides services closer to home and made kiwis healthier. Described as The “Better, Sooner, More Convenient (BSMC) primary health care initiative” this was also about realizing the potential of primary health care that was beyond subsidizing doctors’ fees.

This BSMC policy is focused on the provision of personalised primary health care closer to home, that makes New Zealanders healthier and reduces pressure on hospitals. This approach of bringing PHC and secondary care (primarily hospital based) clinicians together is directed toward removing barriers and creating a continuous health service. This implies shorter waiting times for clients / family / whanau through provision of more services in the community.

The BSMC initiative sought improvement that would centre community based care on co-located multidisciplinary primary health care provision in Integrated Family Health Centres, increased co-ordination of services for those with chronic conditions, and empowering people to manage their conditions and supporting self-care. Additionally, increased clinical governance and leadership to improve multidisciplinary working, and improved opportunities for health practitioner training were sought to further implement the original intent of the PHC Strategy. Incorporating whānau ora and Pacific approaches, where appropriate, was also identified as being important.

The Whanau Ora strategy⁽¹³⁾ was released in 2011. In incorporating whānau ora and Pacific approaches the goals will be met when whānau are self-managing, living healthy lifestyles, participating fully in society, confidently participating in te ao Māori, economically secure and successfully involved in wealth creation, and cohesive, resilient and nurturing.

The complete approach is focused on whanau, providers and government agencies working together to build whanau capability, strengthen whanau connections and inspire whanau leadership. PHC nursing will again be key to enhancing connections through work with whanau in their various practice locations⁽¹³⁾.

To enable implementation of the BSMC approach the MoH sought groups of community based health care professionals to take part in a series of demonstration programmes and nine such groups involving doctors, nurses and other health care professionals providing services to sixty percent of NZ population are actively involved. This has significant implications for the largest group of PHC nurses located in general practice teams as this policy direction is firmly focused on centering more care on the General practice or Integrated Family Health Care Centre location.

Recently the NZ College of PHC Nurses NZNO released a position statement through the NZNO entitled “Maximizing the nursing contribution to positive health outcomes for the New Zealand Population”⁽²⁾. This document outlined the importance of a positive environment to enable nurses to provide comprehensive nursing care in New Zealand primary care settings. As such the timing of this study is critical to identify patient perceptions of practice nurses as they access an increasing range of care assumptively based on an increasingly capable nursing workforce.

This project was undertaken in response to the acceptance of a proposal to the New Zealand College of Practice Nurses to explore consumer satisfaction with New Zealand Practice Nurses. It seeks to provide a snapshot of consumer satisfaction with nursing services that can provide feedback to individual practice nurses and important information to policy makers regarding health service design.

In particular the report provides data on:

A. Consumer satisfaction with individual general practice nurses - Exploring the performance of individual nurses and providing confidential reports to nurse participants containing personal and benchmark data.

B. Consumer satisfaction with New Zealand general practice nurses - Measuring the satisfaction of consumers with New Zealand General Practice Nurses.

C. Psychometrics of the GPNS instrument - Assessing the psychometric properties of the GPNS⁽¹⁾

During the course of the evaluation, the project team liaised closely with NZNO in relation to aspects of the project, including: recruitment, monitoring the progress of the project and reviewing the project outputs.

3. METHODOLOGY

3.1 Research Design

This sequential mixed methods evaluation comprised a combination of qualitative (telephone interviews) and quantitative (survey) data collection. Initially practices that employed a practice nurse were recruited via the New Zealand College of Practice Nurses. Consumers receiving services from a participating practice nurse were offered a survey form at the completion of their visit by practice administrative staff. A sealed box was provided at each practice for survey return or participants were provided a self-addressed envelope to return the completed form directly to the research team. Survey participants were asked if they would be willing to participate in a subsequent telephone interview. Potential interview participants provided the research team with their contact details. The research team contacted all interested individuals, via either telephone or email, to provide them with information about the interviews and arrange a mutually convenient time for the interview to be conducted. Interviews were conducted until data saturation was achieved.

3.2 Evaluation Plan & Methodology

In response to the initial briefing, the project team developed a proposal, which formed the basis for an agreement with the NZNO in terms of:

- Methodology, outputs/deliverables, phases, tasks, and budget;
- Risk management strategy;
- Timelines and agreed outcomes;
- Agreement on recruitment strategies;
- Communication processes;
- Project reporting (interim and final report).

This proposal was used by the study team as the project management tool to guide the conduct of the project.

3.3 Ethical Issues

After making contact with the New Zealand Health and Disability Ethics Committees, Multiregion Committee it was confirmed that Human Research Ethics Approval was not required in New Zealand for this project. In order to comply with Australian NH&MRC requirements Human Research Ethics Approval was sought from the University of Western Sydney (Approval No. H8768). The project team respected ethical principles throughout the life of the project, including maintaining the confidentiality of participants' responses and ensuring the privacy of participants' details.

3.4 Participant Recruitment

The New Zealand College of Practice Nurses recruited practice nurses from a call for expressions of interest in the project. In order to gain a broad cross-section, an attempt was made to recruit practices from both rural and urban areas. The project team forwarded information sheets, consent forms and data collection instruments to nurse participants via the New Zealand College of Practice Nurses.

Practice nurse participants were asked to provide survey forms to consecutive consumers during the study period until they had supplied the target number of surveys to consumers. Consumers who gave permission to be contacted for the subsequent interviews provided their contact details on a separate sheet that was forwarded to the project team.

3.5 Data Collection

3.5.1 Consumer Survey

The consumer survey instrument was a modified version of the instrument developed by the APNA in 2009⁽¹⁾. Modifications to the instrument were made based on the findings of the Australian study and the need for the instrument to be culturally specific to the New Zealand context. A page was added to the rear of the survey form to seek expressions of interest from consumers who would be willing to participate in a telephone interview. A copy of the survey tool is located in Appendix A.

3.5.2 Consumer Interviews

Data from both the Australian and New Zealand surveys was used to develop a semi-structured interview tool (Figure 1).

1. Thinking about the time when you receive health services from the practice nurse:
 - a. What was the nature of this care that you received from the practice nurse (prompt – vaccination, managing wounds, counseling, lifestyle advice, checking medications, ECG, taking blood)?
 - b. What were the processes you had to go through to see the practice nurse?
 - c. How often did you see the practice nurse?
2. How satisfied are you with this care from the practice nurse?
 - a. What does the nurse do well (prompt – willing and able to answer your questions, show respect and concern, treat your problem)?
 - b. Can you tell us how you think the practice nurse could improve the care or service provided?
3. If you had a choice would you continue to receive these services from the practice nurse in the future?
Why/Why not?
4. What do you see as the GPs role in your practice?
6. What do you think the nurses' should do more of?
7. What do you think the nurses' should do less of?

Figure 1. Semi-Structured Interview Tool

3.6 Data Analysis

Survey data was analysed using descriptive and inferential statistics and displayed in tables or text-based descriptions of findings. Individual practices were provided with access to an online report that provided the data for their practice benchmarked against the aggregated data for all participants.

Interviews were audio-recorded and transcribed verbatim by a professional transcription company. They were then analysed using a process of thematic analysis. Qualitative data were analysed using thematic analysis separately and then integrated with the quantitative data to seek confirmation and completeness within and between the datasets⁽¹⁴⁾.

4. FINDINGS

4.1 Introduction

The evaluation findings are presented in three sections: a) Practice Demographic data; b) Consumer Survey data; c) Consumer Interview data.

4.2 Practice & Nurse Demographic Data

Of the 28 practices that were recruited to participate in the study, nurse and consumer data was received from 20 practices (response rate 71.4%). Within these practices, a total of 91 practice nurses returned demographic data. As two nurses returned demographic data but did not return consumer data they were excluded from the analysis. Therefore, the sample consisted of 89 practice nurse participants. Practices employed between 1 and eleven nurses (Mean 4.45; SD 3.15)(Figure 2).

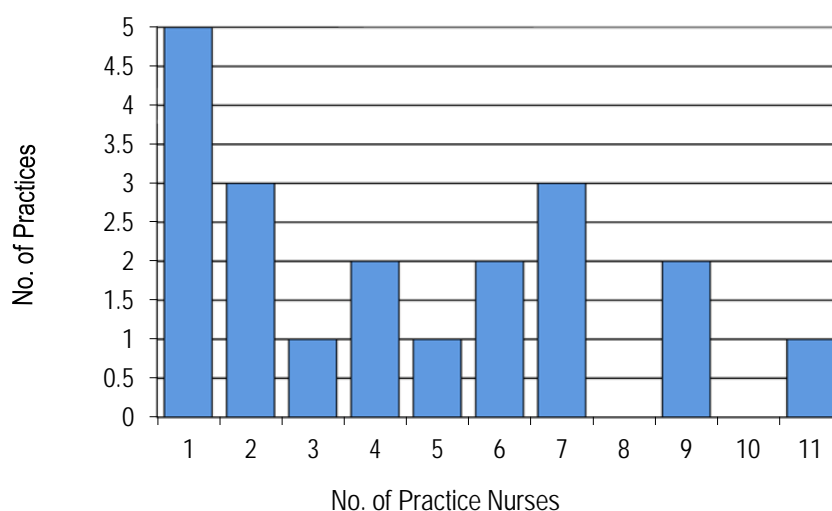


Figure 2. Number of Nurses per Practice

Table 1 shows the geographic spread of both participating Practices and practice nurses. Despite attempts to recruit a mix of rural and urban practices, most participating Practices were located in urban areas.

Table 1. Location of General Practice

Locality	Practices		Practice Nurses	
	n	%	n	%
Rural	1	5.0	9	10.1
Rural/Remote	1	5.0	7	7.9
Urban	14	70.0	59	66.3
Urban/Rural	4	20.0	14	15.7
Total	20	100.0	89	100.0

As can be seen from Table 2, all 89 participating nurses were female. The nurses' mean age was 48.97 years (Range 21.0-65 years; SD 9.49) (Figure 3). Whilst 13 (14.61%) participants had been employed a nurse for 10 years or less, participants had a mean of 22.28 years nursing experience (Figure 4). 25 (28.10%) nurses had over 30 years nursing experience.

In terms of their experience as a practice nurse, participants had been employed in general practice for a mean of 11.37 years (Figure 5). Despite this significant duration of time as a practice nurse, participants reported working in a mean of 2.25 practices in their career (Figure 6). 34 (38.2%) participating nurses had only ever worked in one practice, whilst 16 (17.98%) nurses reported having worked in four or more practices. Currently, 79 participants (88.8%) were employed in a single practice. Participants reported currently being employed for between 8 and 44 hours per week (Mean 27.66; SD 9.01).

Table 2. Practice Nurse Demographics

Attribute	Mean	Range	SD
Gender	87 (100%) Female		
Age	48.97 yrs	21.0 - 65 yrs	9.49
Yrs since Qualified ¹	26.71 yrs	1.0 - 45 yrs	11.05
Years as a Nurse ²	22.28 yrs	1.5 - 44 yrs	10.56
Years as a PN	11.37 yrs	0.5 - 41.0 yrs	8.64
Number of Practices ever worked in	2.25 Practices	1 - >4 Practices	1.33

¹Calculated from Year first qualified as a Nurse.

²Self-report of duration of work as a Nurse (excluding absences >6months)

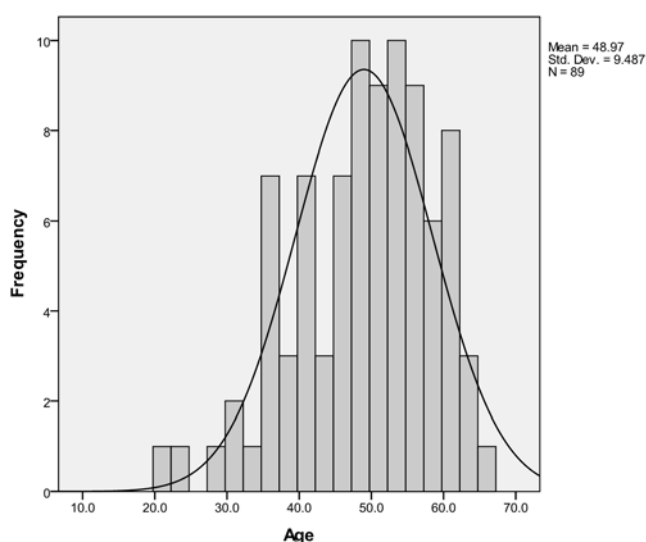


Figure 3. Practice Nurse Age

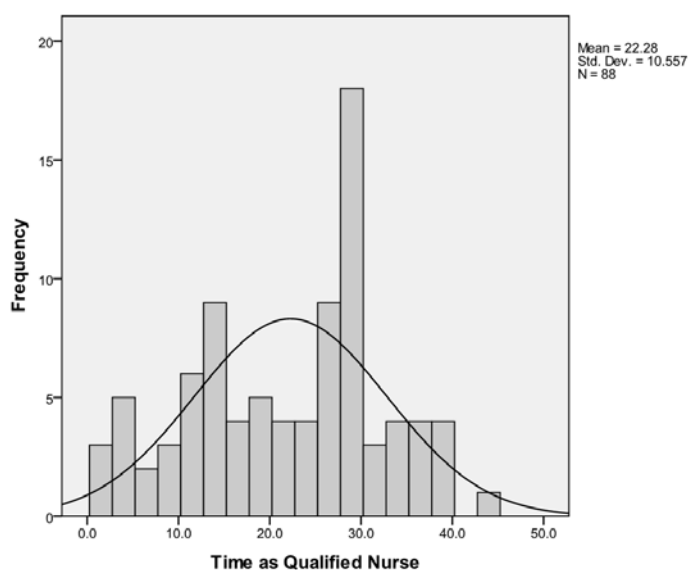


Figure 4. Years as Qualified Nurse

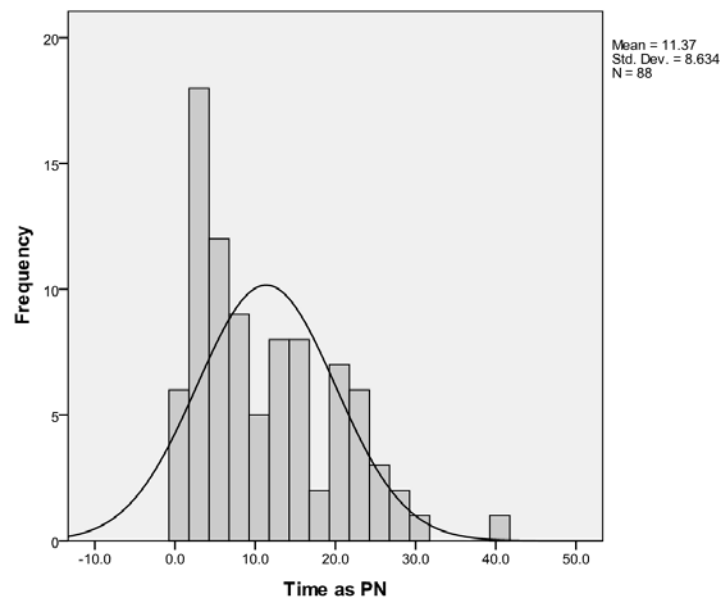


Figure 5. Years as a Practice Nurse

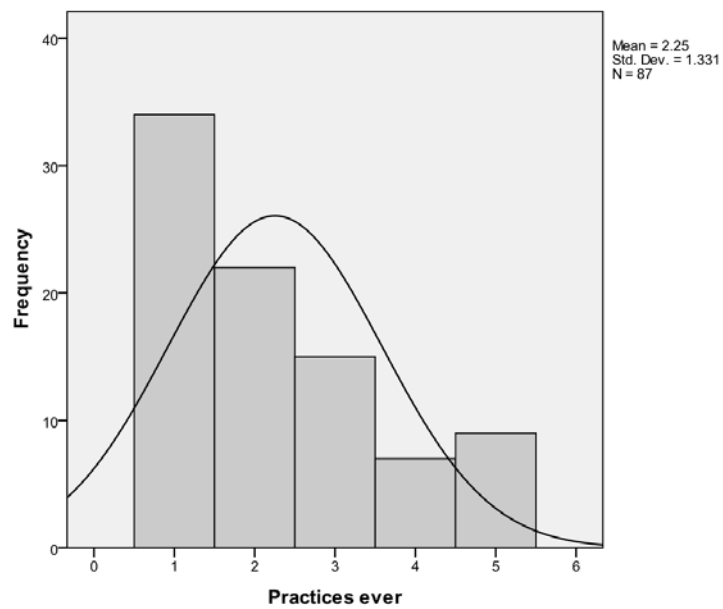


Figure 6. Number of practice ever worked in

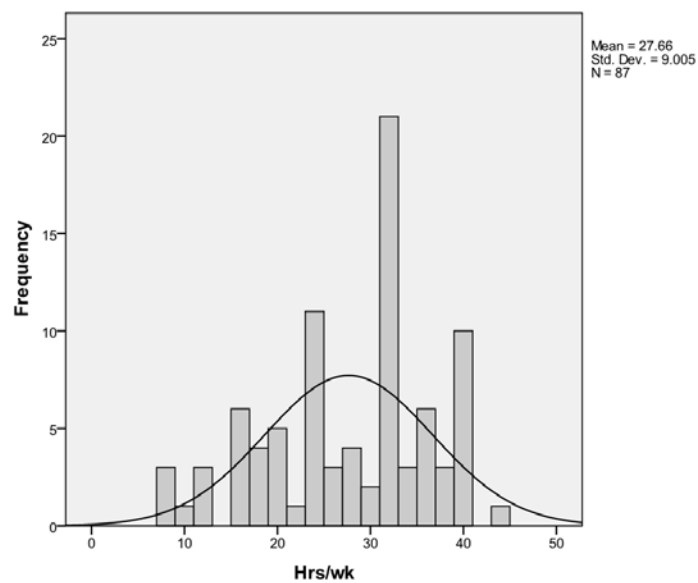


Figure 7. Hours worked per week

Most participating nurses (n=42; 54.57%) held either a bachelors degree or hospital certificate as their highest educational qualification. Such education is likely to reflect the registration requirements at the time that these nurses gained their nursing registration. A smaller number of participants held a graduate certificate (n=10; 11.5%), diploma (n=20; 23.0%) or Masters (n=6; 6.9%).

Table 3. Practice Nurse Highest Educational Qualification

Educational Qualification	n	%
Hospital nursing certificate	24	26.97
Bachelor Degree	25	28.09
Polytechnic Diploma	12	13.48
PG Certificate	11	12.36
PG Diploma	7	7.87
Masters	6	6.74
Other	4	4.49
Total	89	100.0

By far the majority of participants (n=81; 91.01%) were employed as a Registered Nurse (Table 3). This indicates that not all participants with post-graduate qualifications were recognized via their employment classification for attaining this higher level of education.

Table 4. Practice Nurse Employment Classification

Employment Classification	n	%
Registered Nurse	81	91.01
Nurse Manager	4	4.49
Clinical Nurse Specialist	2	2.25
Nurse Practitioner	1	1.12
Enrolled Nurse	1	1.12
Total	89	100.0

4.3 Consumer Survey Data

1505 consumers from 20 Practices completed the survey (Mean 75.25; SD 78.52; Range 14-390). As it not possible to identify the number of consumers who received practice nurse services who declined to participate it is not possible to calculate a response rate. Additionally, for ethical reasons, in practices with multiple practice nurses, it was not possible to identify which nurse the participating consumer had received services from. Practices varied significantly in terms of the numbers of participating consumers recruited, with a mean of between 6.7-73.0 consumers recruited per participating practice nurse (Mean 16.9; SD 22.0).

Table 5. Practice Nurses and Consumers per Participating Practice

Practice Identification	Nurses		Consumers		Mean Consumers per Nurse
	n	%	n	%	
Practice 1	1	1.1	72	4.8	72.0
Practice 2	2	2.2	60	4.0	30.0
Practice 3	1	1.1	14	.9	14.0
Practice 5	1	1.1	73	4.9	73.0
Practice 7	4	4.5	62	4.1	15.5
Practice 8	7	7.9	73	4.9	10.4
Practice 9	6	6.7	57	3.8	9.5
Practice 10	2	2.2	66	4.4	33.0
Practice 11	6	6.7	40	2.7	6.7
Practice 12	3	3.4	53	3.5	17.7
Practice 14	11	12.4	390	25.9	35.5
Practice 18	7	7.9	71	4.7	10.1
Practice 19	9	10.1	65	4.3	7.2
Practice 20	2	2.2	36	2.4	18.0
Practice 21	1	1.1	30	2.0	30.0
Practice 22	1	1.1	73	4.9	73.0
Practice 23	4	4.5	27	1.8	6.8
Practice 24	9	10.1	142	9.4	15.8
Practice 27	5	5.6	52	3.5	10.4
Practice 28	7	7.9	49	3.3	7.0
Total	89	100.0	1505	100.0	16.9

Table 6 (below) provides a summary of the consumer demographics. Most consumer participants were female (n=968; 64.3%), of European background (n=1179; 64.3%) and English language speakers (n= 1345; 98.0%). The age of consumers was well distributed, with a predictable slightly higher proportion of those aged 60-80 years (Figure 7). In terms of self perceived health status, most consumers felt the same (n=787; 52.3%) or better (n=451; 30.0%) than they did last year.

Table 6. Consumer Demographics

Characteristic	n	%
Gender		
Female	968	64.3
Male	502	33.4
Age		
<20 years	84	5.8
20-30 years	103	7.1
30-40 years	164	11.3
40-50 years	192	13.2
50-60 years	208	14.3
60-70 years	270	18.5
70-80 years	299	20.5
80+ years	138	9.5
Ethnicity		
European	1179	78.3
Maori	129	8.6
Unknown	94	6.2
Pacific Peoples	40	2.7
Other	34	2.3
Language		
English	1345	98.0
Unknown	133	8.8
Other	12	0.8
Pacific Island	9	0.6
Maori	3	0.2
Sign Language	3	0.2
Occupation		
Retired	517	34.4
Paid work – Full-time	430	28.6
Paid work – Part-time or Casual	206	13.7
Home-duties	101	6.7
Unemployed	87	5.8
Perceived Health Status		
I feel the same as last year	787	52.3
I feel better than last year	451	30.0
I feel worse than last year	176	11.7
Unknown	91	6.0

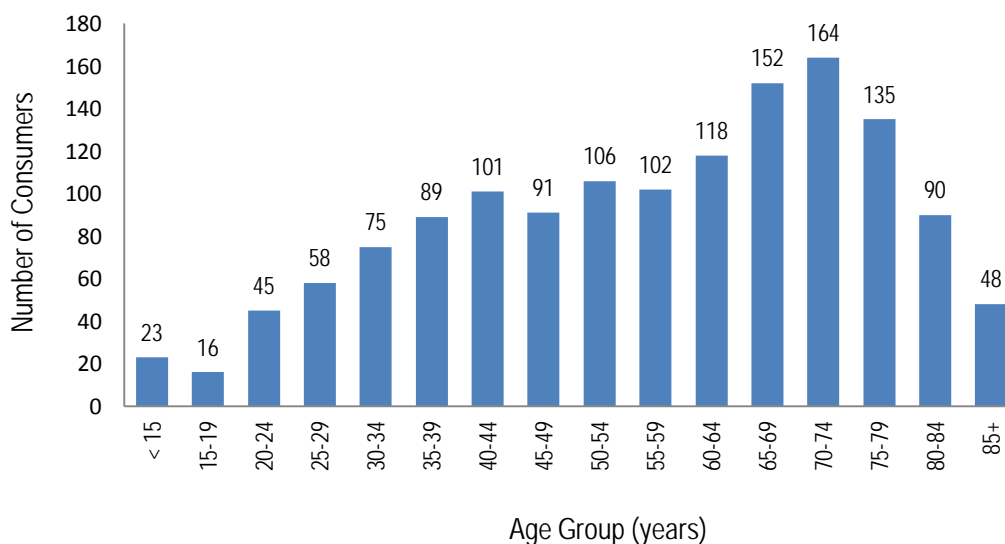


Figure 8. Distribution of Consumer Age

Most consumer participants were the patient (n=1308; 86.9%), had made an appointment with the practice nurse (n=1018; 67.6%) and expected to see a practice nurse on their visit today (n=1235; 82.1%)(Table 7). There was variation in the number of times that participants had seen the practice nurse previously, with 29.3% (n=441) having seen a practice nurse more than 12 times previously and 22.1% (n=332) having seen a practice nurse on 2 or less occasions previously. During their visit, most patients saw only the practice nurse (n=917; 60.9%).

Table 7. Consumer Characteristics

Characteristic	n	%
Consumer status		
Patient	1308	86.9
Parent of child	141	9.4
Carer of adult	16	1.1
On behalf of adult	16	1.1
Type of Insurance		
Private	421	31.0
Number of visits to a practice nurse		
Up to 2 times	332	22.1
3 to 4 times	296	19.7
5 to 8 times	283	18.8
9 to 12 times	132	8.8
More than 12 times	441	29.3
Appointment with whom		
General Practitioner	235	15.6
Practice Nurse	1018	67.6
No appointment	75	5.0

Characteristic	n	%
Expected to see Practice Nurse today		
No	153	10.2
Yes	1235	82.1
It was a possibility	93	6.2
Services received from		
General Practitioner & Practice Nurse	476	31.6
Practice Nurse Only	917	60.9

As can be seen from Table 8, most participants strongly agree that it was easy to make an appointment with the Practice Nurse at a time that suited them (n=1158; 76.9%) and quickly when it was required (n=974; 64.7%). Given that the survey was undertaken with consumers who had attended the Practice Nurse it may be that those who were unable to make suitable appointments are underrepresented in the sample.

Table 8. Access to the Practice Nurse

	It was easy to make an appointment to see a Practice Nurse at a time that suited me		It was easy to make an appointment to see a Practice Nurse quickly when I needed it	
	n	%	n	%
Strongly Agree	1158	76.9	974	64.7
Agree	121	8.0	156	10.4
Neutral	68	4.5	76	5.0
Disagree	8	0.5	9	0.6
Strongly Disagree	11	0.7	18	1.2

Practice Nurse Roles

Most consumers had attended the practice nurse for a vaccination (n=669), with others attending for an ongoing problems (n=266), general check-up (n=246) or follow-up from previous visit (n=219)(Table 9). Least common reasons for attending the practice nurse were child health checks (n=41) and help organising things (n=28).

Table 9. Reason for Visit

Reason for Visit	n
Vaccination	669
Ongoing problem	266
General check-up	246
Follow-up from previous visit	219
New problem	170
Medical test	112
Advice on managing a problem	86
Child health check	41
Help organising things	28

³Participants could identify more than 1 reason for their visit if applicable.

The procedures most commonly reported by the consumers to have been undertaken by practice nurses during their visits included vaccination (n=729), blood pressure measurement (n=290), other procedures (n=151) and wound care / dressings (n=142). The least commonly received procedures included First Aid (n=14), Collection of tissue specimens (n=13), Sexual health checks (n=13), and Minor illness reviews (n=6).

Table 10. Procedures Performed by the Practice Nurse

Procedure	n
Vaccination	729
BP Measurement	290
Other procedure	151
Wound care / Dressing	142
Other Injection	104
Collection blood / urine specimen	97
Cervical Smear	87
Test BSL	80
ECG or heart assessment	37
Ear Washing / Syringe	33
Removal of stitches / staples	24
Lung function / spirometry	24
First Aid	14
Collect tissue specimen	13
Sexual health check	13
Minor Illness	6

Consumers reported that practice nurses undertook a range of tasks during their visit (Table 11). Most commonly tasks included education on illness management (n=281), health assessment (n=231), checking medications (n=197) and providing test results (n=187). Least commonly consumers reported practice nurses providing travel advice (n=22), chronic disease management (n=25) and liaising with other health professionals (n=49).

Table 11. Tasks Performed by the Practice Nurse

Task Performed	n
Education on management of illness	281
Other injection	245
Health assessment	231
Check medications you are currently taking	197
Give you test results	187
Take details of your medical history	147
Book follow-up appointments with others	110
Lifestyle risk factor counselling	104
Perform care plan	101
Care Plus appointment	78
Arrange health services that you needed assistance in accessing	74
Child health check	70
Liaise with other health professionals and community organisations	49
Chronic disease management	25
Travel health advice	22

General Practice Nurse Satisfaction (GPNS) scale

For the 21-item GPNS scale, Cronbach's Alpha was 0.954. This demonstrates a high level of internal consistency within the instrument. This finding provides further validation to the instrument. Cases were removed from the analysis if more than four of the 21-items were missing from the dataset.

Table 12. GPNS Scale Item Analysis

Item Description	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I feel confident in the PN	0.61	0.94
I trust the PN	0.73	0.94
I would recommend this PN to my family and friends	0.44	0.95
I will follow the PN's advice	0.68	0.94
The consultation with the PN	0.77	0.94
The PN gave me useful advice	0.85	0.94
The PN seemed to be up to date with health information	0.65	0.94
I would be happy for a PN to perform this procedure again	0.48	0.95
If the GP asked me, I would give positive feedback about the PN	0.69	0.94
The PN was very thorough	0.76	0.94
The PN and GP worked well as a team	0.74	0.94
The PN spent enough time with me	0.80	0.94
The PN was confident in my ability to look after my health	0.80	0.94
The PN was caring and concerned about me	0.85	0.94
The PN was friendly and warm	0.81	0.94
The PN respected me	0.82	0.94
The PN was patient with my questions or worries	0.78	0.94
The PN paid attention to what I had to say	0.81	0.94
The PN encouraged me to ask questions	0.73	0.94
The PN explained everything clearly	0.18	0.96
The PN helped me understand what the GP said	0.69	0.94

Mean satisfaction scores for each Practice were fairly consistent, ranging from 89.24 to 100.2 (Mean 95.08; SD 3.4)(Figure 9).

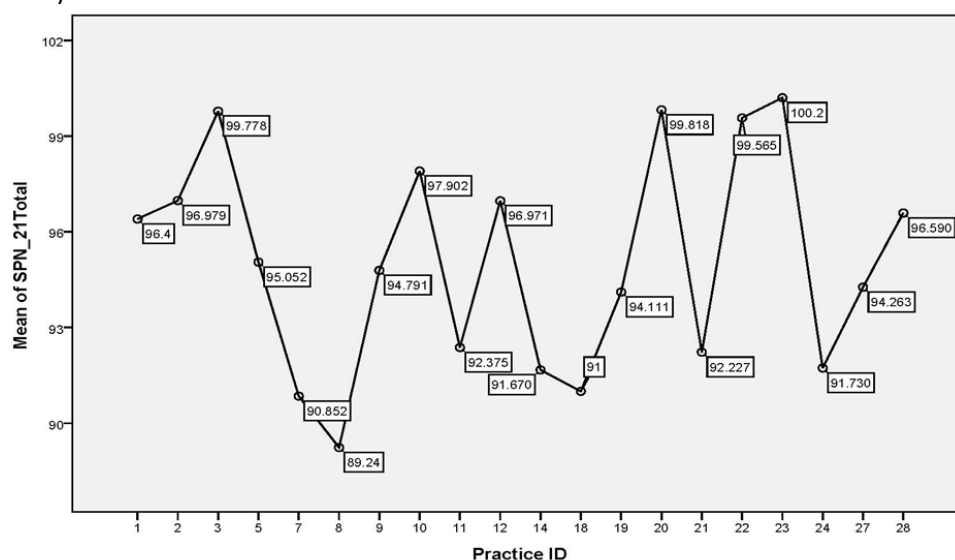


Figure 9. Distribution of Mean GPNS Scale Scores per Practice

As can be seen from Table 13 (below), the total GPNS was not significantly impacted by language spoken, age, gender, number of visits to the practice nurse, insurance status or employment type. A significant relationship was, however, found between perceived health status and GPNS ($p < 0.05$), with participants who reported to be in declining health (i.e. feeling worse than last year) being less satisfied with the practice nurse compared to those with improving health status (i.e. feeling better than last year).

Table 13. Participant Characteristics and Total GPNS Score

Characteristic	Total GPNS scores	
	Mean (SD)	<i>p</i>
Language Spoken		0.785
English	94.22 (10.14)	
Other	95.00 (9.77)	
Age		0.705
Less than 60 years	94.18 (10.13)	
60 years or more	94.68 (9.90)	
Gender		0.435
Female	94.41 (10.47)	
Male	94.54 (8.97)	
Number of visits to a practice nurse		0.084
No previous visit	91.55 (9.79)	
1 - 2 times	93.44 (10.83)	
3 - 4 times	94.62 (9.72)	
5 - 8 times	94.51 (9.35)	
9 - 12 times	95.43 (9.80)	
More than 12 times	95.33 (9.89)	
Employment Status		0.737
Paid Work	94.50 (9.69)	
Retired	94.81 (9.91)	
Other	94.13 (10.56)	
Perceived Health Status		0.040*
I feel worse than last year	94.35 (9.56)	
I feel the same as last year	93.75 (10.23)	
I feel better than last year	95.61 (9.91)	
Private health insurance		0.89
No	94.79 (9.92)	
Yes	93.77 (10.06)	

As shown in Figure 10, although not statistically significant, there is a clear trend towards higher total GPNS scores as the number of previous visits to the practice nurse increases. A somewhat logical trend is also apparent in terms of health status and number of practice nurse visits. Figure 10 demonstrates how a higher numbers of previous practice nurse visits is associated with lower health status

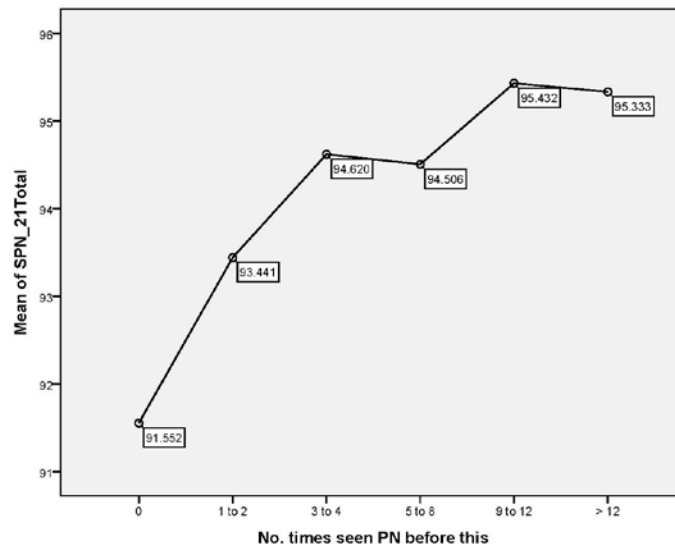


Figure 10. Mean GPNS Scores and Number of Practice Nurse Visits

Perceived Health Status

Not surprisingly, the self-reported mean health scores of those who were in paid work was significantly higher ($p < 0.001$) than those who were retired (Table 14). As expected, those who reported to be in declining health were also more likely to have lower mean health scores compared to those who reported that their health to be improving ($p < 0.001$). Interestingly, participants with private health insurance reported their mean health scores to be higher than those without private health cover ($p = 0.001$) (Table 14).

Table 14. Participant Characteristics and Total Health Scores

Characteristic	Total Health scores	
	Mean (SD)	<i>p</i>
Language Spoken		0.516
English	83.58 (12.84)	
Other	86.39 (12.73)	
Age		0.314
Less than 60 years	84.43 (12.96)	
60 years or more	82.61 (12.64)	
Gender		0.561
Female	84.13 (12.66)	
Male	82.28 (13.21)	
Number of visits to a practice nurse		0.12
No previous visit	82.90 (14.57)	
1 - 2 times	86.01 (11.49)	
3 - 4 times	84.18 (11.73)	
5 - 8 times	83.87 (12.55)	
9 - 12 times	82.67 (14.69)	
More than 12 times	82.07 (13.24)	
Employment Status		<0.001*
Paid Work	86.13 (11.82)	
Retired	81.62 (12.85)	
Other	81.12 (14.01)	

Characteristic	Total Health scores
Perceived Health Status	<0.001*
I feel worse than last year	72.00 (12.35)
I feel the same as last year	84.02 (12.59)
I feel better than last year	87.05 (10.79)
Private health insurance	0.001*
No	82.45 (13.24)
Yes	86.09 (11.62)

Figure 11 (below) demonstrates the inverse association between health status and number of visits to the practice nurse. That is, apart from patients for whom this was their first visit to the practice nurse, the more times the consumer had seen the practice nurse the lower their mean total health scores.

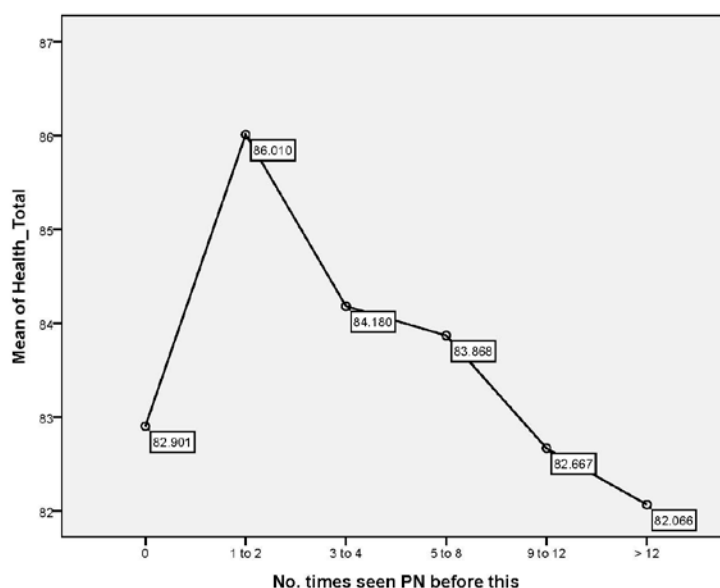


Figure 11. Mean Health Status and Number of Practice Nurse Visits

As previously mentioned, those consumers who reported feeling better than last year were the most satisfied (Figure 11). Additionally, those who have had no change in their health status and feel the same as last year were the least satisfied. Those consumers who felt worse than last year were slightly more satisfied than those who felt the same as last year, but much less satisfied than those who reported feeling better than last year.

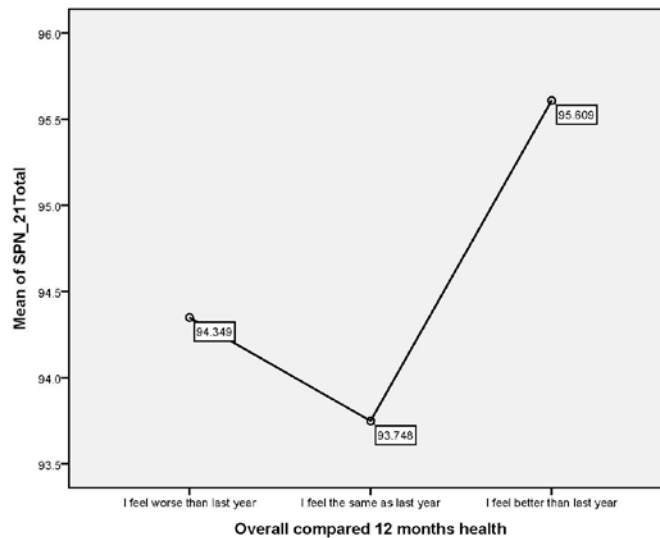


Figure 12. Mean GPNS Score and Perceived Health Status

4.4 Consumer Interview Data

Of the 18 consumers who participated in interviews, there were 13 women (72.2%) and 5 men (27.8%). Data collection continued until data saturation was achieved, that is, that no new data was emerging from subsequent interviews.

Overall, participants were extremely happy with the care delivered by Practice Nurses and commented on the nurses knowledge and competence. Consumers commented on the positive aspects of having access to Practice Nurses and highlighted areas where their skills were seen as particularly complementary to GP services. Most notably, Practice Nurses were perceived as being particularly skilled in explaining things to consumers and delivering sensitive care. Consumers also expressed an appreciation regarding the accessibility of PNs however, most conveyed a preference for a GP over a PN consultation if given a choice, particularly if they perceived their situation as serious. The interview data revealed four themes. These themes and their sub-themes are described in Table 2.

Table 15. Themes & Sub-themes

Theme	Sub-themes
Satisfaction with practice nurses: "they are first class"	a) Being valued: "She listened to me and treated me like a person" b) Developing relationships: "You build up a rapport with them"
Confidence with practice nurses: "she knows what she's doing"	a) Appreciating practice nurses' knowledge: "They explain things and that sort of puts me at ease" b) Appropriate referral : "I know she'd get the doctor"
Confusion with the practice nurse role: "when you say a practice nurse, I'm a little bit unsure what you mean"	
Appreciation of Practice Nurse accessibility: "It makes it a lot easier for me"	a) Being readily available "I don't have to wait around" b) Affordable care: So easy on my funds

Satisfaction with practice nurses: “they are first class”

Overall, participants were extremely happy with the care delivered by Practice Nurses and this is illustrated in the following excerpts from their transcripts: *“I just think they’re [PNs] marvellous”* (Melanie), *“they are first class”* (James), *“She [PN] is the best thing that ever happened in my life”* (Chrissy). This was characterised by two sub-themes; the way in which the PNs valued the consumers and listened to them and the development of ongoing rapport between consumers.

a) Being valued: “She listened to me and treated me like a person”

Several participants described how the practice nurses *“listened to me and she treated me like a person”* (Chrissy). Another participant conveyed *“They didn’t talk down to me because of my nationality which is good because some doctors take one look at me and then they talk so slow that I did start to get a bit angry”* (Jacqui).

In contrast to their experiences with doctors, some participants expressed how they felt valued by Practice Nurses

I see the doctors as in a hurry and they get to the point of it and they make you feel - if it's something more serious - they make you feel like you've got to the cause of the problem. Whereas nurses, in my experience, just being that little bit more slower, calmer and they're a bit more personalised. They talk to you; they know your children, especially if you've been going somewhere for a long time like I have - I've just been very lucky (Natalie).

b) Developing relationships: “You build up a rapport with them”

Participants also described the benefits of developing an ongoing relationship with the practice nurse. *“you build up a rapport with them and you feel confident with them”* (Millicent). *“They don’t sort of abandon you after the visit. You go back, they contact you”* (Melanie).

The willingness of practice nurses to establish and build a rapport with the consumer and their family was highly valued. *“They always remember who you are. They remember the children’s name which I always think’s great”* (Natalie).

In contrast to the benefits of an ongoing relationship, some participants described the negative impact of not having an established relationship with the practice nurse;

I had somebody that filled in for someone. I’m really quite a private person. I really find it quite hard going to, you know - I ... know that nurse and that’s who I go to. She gets to know me (Eliza).

Confidence with practice nurses: “she knows what she’s doing”

a) Appreciating practice nurses’ knowledge: “They explain things and that sort of puts me at ease”

Practice nurses were perceived by consumers as being knowledgeable and competent.

in the fact that her manner, her speaking and also her professionalism, the way she goes about her job, gives the customer, the patient, the confidence that, hey, she knows what she’s doing. I feel comfortable about it (James).

Consumers very much appreciated the detailed explanations given by Practice Nurses about their chronic conditions, the need for particular treatments or lifestyle changes.

They [Practice Nurses] explain things. They actually explain why they're doing what they're doing and that sort of thing so it puts me at ease. Even though I've had them [tests] all before but it's a different way of them explaining it all to me. I could understand it (Jacqui).

And often when I haven't been able to take much pain relief, and they're very good at explaining why.... I mean the doctors just haven't got time have they? Well that's how I feel anyhow. The doctor's good too and often he's not there so I would say they are very good at that sort of thing (Melanie).

Oh she's - how would you describe her - she's - she tells you what you need to know directly but indirectly. She's able to - she's tactful in how she tells you. There's some things you don't want to hear - sort of stuff - or you know but she just confirms it and that. I think I [unclear] want to know and I have learnt things that I need to be doing and that is all about, sometimes, you've got to pull your head in and do that (Violet).

b) Appropriate referral: "I know she'd get the doctor"

Underpinning this was the consumers' confidence that "as soon as they see something's not quite right, the doctor comes in" (Melanie). Whilst there was some indication that consumers wanted to retain the choice to see the GP if they chose to, the confidence that the PN would seek the advice of the GP was seen as comforting.

I would probably go to the doctor first if I could get in, which is a little bit of an issue up at this clinic at the moment, I'd probably go to the doctor, but having said that, if there was an issue I'd be perfectly happy to go to the practice nurse because I know she'd get the doctor (Melanie).

if I had a really serious incident, as you would call it, I would prefer a doctor to be available rather than a nurse.... I'm assuming, incorrectly or what, that a doctor would have a little bit more in-depth knowledge of determining or diagnosing what's wrong than a nurse (James).

so what's going on with me, I really want to just deal with my doctor over. Simple things - like if I had a sore throat, I'd be quite happy to go see the nurse about (Sharon).

Participants spoke positively of the PN role in triaging when they needed medical attention.

She's my first port of call and if I feel I have an emergency which is not a hospital emergency, then I will talk to a practice nurse (Ben).

The other time when I see my practice nurse is when I need something urgently. Now I've had occasion when I've had diarrhoea, that type of thing, or when I've felt really crook and I speak first of all to a practice nurse who then decides whether, well, usually I have to admit, usually decides then I'll see a doctor (Ben).

Confusion around the practice nurse role: "when you say a practice nurse, I'm a little bit unsure what you mean"

For a couple of participants it was unclear who was a PN within their practice or what a PN is. "Well even the nurse that gave me the injection, ...she was wonderful and she, I suppose she's a practice nurse too really isn't she" (Miriam). In referring to pathology blood collectors one participant commented "Whether you would call those practice nurses or not I don't know.. (Ben)".

A few participants described how the role of the PN had changed. "I think years ago they were just there. They came in when you were with the doctor and stood while you had a smear or whatever, but now they're

far more up front with what they do” (Melanie). Melanie went on to explain “I’m lucky I’ve been round the health system for yonks, and I wonder like sometimes if people ring up and make an appointment and there’s no appointments, do they understand that the practice nurses are available. Maybe they could be a little bit more prominent”.

Several participants did indeed express a lack of clarity about the PN role and the scope of their practice.

that’s where it’s quite grey to me because I don’t think it’s ever been made clear all the things that you could use the nurse for. So my usual port of call is usually the GP. It’s just been like the vaccinations and smear tests that I’ve ended up seeing the nurse instead (Sharon).

when you say a practice nurse, I’m a little bit unsure what you mean because, you see, now there is a nurse there that does nurse-type things for the doctor, you know, like bandages and looking after your wound, stuff like that...Then there’s the nurse ... went through your notes, checked on your medication and make sure you’re doing it right (Barry).

Participants tended to base their perception of the PNs scope of practice around their experience of nursing services. *“Yeah, definitely the vaccinations and smear tests I go to the nurse. There’s been a few things. Like my daughter sprained her ankle really bad a year ago. I ended up seeing the GP. I mean, if I could have gone to the nurse I would have done that if I’d known I could (Sharon)”.*

Once participants had gained an appreciation of the practice nurse and their role they indicated that they returned to the nurse. *“I’ve probably only really started to see them in the last two to three years because up until then I wasn’t really aware that they were there and available to me (Sharon)”.*

A key PN role identified by consumers was that of substitution for the GP in simple tasks. Having the PN take on these tasks was seen as time saving for GPs, particularly in a context of workforce shortage. *“There are things, those superficial things that it’s much better to go to a practice nurse because it’s not wasting his time” (Melanie).*

I’m very happy for them to stitch me up or tape up whatever’s happening any of those sorts of things – anybody who’s trained can do those sorts of jobs. I’m not saying the jobs are too easy, but a nurse can strap up a sprained wrist with as much skill as a doctor can (Michelle).

Appreciation of Practice Nurse accessibility

a) Being readily available: “I don’t have to wait around”

A common complaint among participants was the difficulty that they encountered in making appointments and receiving treatment from a GP.

Once upon a time we could just make an appointment there and then get in today and see our doctor. It’s not like that anymore. You’ve got to make appointment perhaps for – make an appointment today for next week perhaps or even, you know, two or three days’ time when they’re on duty (Miriam).

Contrary to this experience of having to wait for extended periods for a GP appointment, Practice Nurses were seen as being readily available for consultations. Consumers valued not having to wait to see the Practice Nurses and appreciated them being contactable by telephone if support or advice is required.

I’m waiting for this hip replacement, they’ve been marvellous. When things have gone wrong, I’ve been able to see them straight away (Melanie).

I don't normally – I certainly don't to have to wait round very much to get to see a practice nurse and if I do, I simply leave a message and they'll call me back, probably within a half hour, but certainly within the hour. It is what I'd call virtually immediate access (Ben).

It's usually pretty good. It can be a lot quicker than waiting to see the doctor. You can guarantee if you want to see a nurse you can get in today (Sharon).

b) Affordable care: “So easy on my funds”

Accessibility of practice nurses was also enhanced due to the lower financial cost for consumers. This was particularly important for consumers who were low income earners and pensioners.

Yeah, because - and not only that - I suppose it actually - it takes the pressure of the doctors for, you know, some of the things. Not only that, it makes it a lot easier for me. It doesn't become so costly because, you know, some of the things I see the practice nurse for it doesn't sort of tie up the doctor really, you know, makes it so easy on my funds too (Bill).

We pay \$20 when we go to see the care nurse but we pay about \$39.90, I think it is, to see the doctor. That for us really is very helpful (Abbey).

Participants also reflected on the value for money in seeing the GP rather than the PN. “sometimes I think god, that was a useless visit. I paid \$51 for nothing. I could have got that off [the PN]” (Violet).

5. DISCUSSION & RECOMMENDATIONS

Based upon this project it is evident that consumers are highly satisfied with nursing services in general practice. Nurses are undertaking multiple tasks and procedures each time they interact with the client. During these interactions nurses are conveying a sense that they are knowledgeable and competent, whilst creating a safe environment for consumers in which they feel valued.

The desire for consumers to retain the choice as to whether they see a practice nurse or GP expressed in this study has been previously reported in the literature^(15, 16). This finding highlights the need to ensure that consumers are aware of the primary health care nurses' scope of practice and are confident of their ability to practice within this scope.

5.1 Implications for Practice

A key attribute of practice nurses identified by consumers was their ability to communicate. This finding needs to be recognized by nurses in order to both ensure that they engage in high level communication with consumers and also to raise nurses' awareness of the value that consumers place on such interaction. As valued communicators, practice nurses are afforded opportunities to facilitate health promotion, provide health education and identify health concerns that might otherwise be missed.

The findings that satisfaction plateaued after 12 practice nurse visits and that satisfaction was less in those who felt worse than last year raise a number of issues. Consumers within either of these two groups are most likely to be those with the more significant chronic and complex conditions. Clinicians need to consider the implications for these findings in terms of the expectations of these sub-groups of consumers. Despite ongoing contact with these consumers, it is important that clinicians regularly discuss management goals and strategies to ensure that consumer needs are being met and that consumers have a clear understanding of their current health status and likely future prognosis.

5.2 Implications for Policy

Current policy initiatives in New Zealand and internationally are focusing on the expansion of primary care, particularly nursing services, to meet the growing burden of chronic and complex disease^(9, 10). The data from this Project demonstrates, for the first time, that practice nurses services are acceptable to health consumers. Given the importance of consumer satisfaction and acceptability in terms of uptake of interventions and compliance^(1, 17, 18), these data are significant.

This Project has identified the need to ensure that the community clearly understands both the PN role and their scope of clinical practice. Ensuring such awareness is important in assisting consumers to feel confident in consulting practice nurses for a broader range of health issues. Further work should be undertaken in promoting the practice nurse role within the community.

7. CONCLUSION

This Project has identified the dynamic environment of New Zealand general practice and the generally positive way in which consumers perceive practice nurses and the services that they provide. The well-identified need for health care reform and building capacity in primary care underscores the importance of evaluating the acceptability of primary care service delivery to consumers. Regular, ongoing evaluation of the acceptability of nursing services in general practice and indeed across primary care is necessary to ensure a nursing workforce that is responsive to the changing health needs of the community.

REFERENCES

1. Halcomb, E.J., et al., *Development and psychometric validation of the General Practice Nurse Satisfaction Scale*. Journal of Nursing Scholarship 2011. **43**(3): p. 318-327.
2. New Zealand College of Primary Health Care Nurses. *Practice Position Statement: Maximising the Nursing Contribution to Positive Health Outcomes for the New Zealand Population*. 2012.
3. Ministry of Health, *A portrait of health: Key results of the 2006/07 New Zealand Health Survey*, 2008, Ministry of Health: Wellington.
4. Ministry of Health, *A portrait of health: Results of the 2002/03 New Zealand Health Survey. Occasional Bulletin No. 21*, 2004, Ministry of Health: Wellington.
5. Cheraghi-Sohi, S., et al., *What are the key attributes of primary care for patients? Building a conceptual 'map' of patient preferences*. Health Expectations, 2006. **9**(3): p. 275-284.
6. Potiriadis, M., et al., *How do Australian patients rate their general practitioner? A descriptive study using the General Practice Assessment Questionnaire*. Medical Journal of Australia, 2008. **189**(4): p. 215-219.
7. Sitzia, J. and N. Wood, *Patient satisfaction: A review of issues and concepts*. Social Science and Medicine, 1997. **45**: p. 1892-1843.
8. Donovan, J.L., *Patient decision making. The missing ingredient in compliance research*. International Journal of Technology Assessment in Health Care, 1995. **11**(3): p. 443-455.
9. King, A., *Primary health care strategy*, 2001, Ministry of Health: Wellington.
10. Expert Advisory Group on Primary Health Care, *Investing in health: Whakatohutia te Oranga Tangata*, 2003, Ministry of Health: Wellington.
11. Finlayson M., Sheridan N., and C. J., *Evaluation of the Implementation and Intermediate Outcomes of the Primary Health Care Strategy Second Report: Nursing Developments in Primary Health Care 2001-2007*, 2009, Health Services Research Centre: Wellington.
12. Ministry of Health, *Implementing the New Zealand Health Strategy*, 2009, Ministry of Health: Wellington.
13. Health, M.o., *Whānau Ora: Transforming our futures*, 2011, Ministry of Health: Wellington.
14. Andrew, S. and E.J. Halcomb, eds. *Mixed methods research for nursing and the health sciences*. 2009, Wiley-Blackwell London, England.
15. Halcomb, E.J., et al., *Nursing in Australian general practice: Directions and perspectives*. Australian Health Review, 2005. **29**(2): p. 156-66.
16. Cheek, J., et al., *Consumer perceptions of nursing and nurses in general practice*, 2002, Centre for Research into Nursing and Health Care, University of South Australia: Adelaide, South Australia.
17. Cheraghi-Sohi, S., Bower, P., Mead, N., McDonald, R., Whalley, D., & Roland, M., *What are the key attributes of primary care for patients? Building a conceptual 'map' of patient preferences*. Health Expectations, 2006. **9**(3): p. 275-284.
18. Donabedian, A., *Evaluating the quality of medical care*. Milbank Memorial Fund Quarterly, 1966. **44**(Pt 2): p. 166-203.

Appendix A.

PN Demographics

Consumer Satisfaction with General Practice Nurses

Practice Nurse Demographic Information

1. Under what classification are you currently employed? (Please ✓ *one only*)

Registered Nurse (Division 1)	<input type="text" value="1"/>	Clinical Nurse Consultant	<input type="text" value="2"/>
Enrolled Nurse (Division 2)	<input type="text" value="3"/>	Nurse Manager	<input type="text" value="4"/>
Clinical Nurse Specialist	<input type="text" value="5"/>	Non-nursing classification	<input type="text" value="6"/>
Other (please specify): _____			<input type="text" value="7"/>

2. How many hours per week are you employed as a Practice Nurse (PN)? hours

3. As a Practice Nurse, how many General Practices (Please ✓ *one only on each row*)

have you ever worked in?	1 <input type="text" value="1"/>	2 <input type="text" value="2"/>	3 <input type="text" value="3"/>	4 <input type="text" value="4"/>	>4 <input type="text" value="5"/>
do you currently work in?	1 <input type="text" value="1"/>	2 <input type="text" value="2"/>	3 <input type="text" value="3"/>	4 <input type="text" value="4"/>	>4 <input type="text" value="5"/>

4. In what postcode area is the Practice in which you work?

5. Which term best describes the locality covered by your practice? (Please ✓ *one only*)

Inner city (Capital City)	<input type="text" value="1"/>	Urban / Metro (Capital City)	<input type="text" value="2"/>
Rural / Outer metro area	<input type="text" value="3"/>	Rural / Remote	<input type="text" value="4"/>
Regional Centre	<input type="text" value="5"/>		
Other (please specify) _____			<input type="text" value="6"/>

6. What is your current age? Years

7. Are you: MALE / FEMALE

8. In what year did you first qualify as a nurse? _____

9. What is your highest educational qualification? In the space below specify the major or specialty area that related to this qualification. (Please ✓ *one only*)

Hospital nursing certificate	<input type="text" value="1"/>	Graduate Certificate	<input type="text" value="2"/>
Hospital Advanced certificate	<input type="text" value="3"/>	Masters	<input type="text" value="4"/>
Associate diploma	<input type="text" value="5"/>	Doctorate	<input type="text" value="6"/>
Bachelors' Degree	<input type="text" value="7"/>	Other	<input type="text" value="8"/>

Specialty Area(s) / Course Title (e.g. Midwifery, Critical Care, Oncology, Community):

10. How long, in total excluding absences from the workforce for more than 6 months, have you worked as a qualified nurse?

Years Months

11. How long, in total excluding absences from the workforce for more than 6 months, have you worked as a practice nurse?

Years Months

Appendix B.

Consumer Survey

Patient Satisfaction Survey



This survey asks about your most recent visit with a Practice Nurse (PN). The information you provide will be used to help Practice Nurses improve the quality of their services to you.

There are no right or wrong answers. It is your opinion that is important.

The survey is completely anonymous. DO NOT WRITE ANY NAMES on the form.

When completing the survey:

- If you are unsure, please select the answer that is closest to your opinion
- If the item does not apply to you, or if you cannot answer, please mark NA.

Please answer all questions by placing a cross (not a tick) in one box.



1 About your visit today

I am completing this survey:

- ☐ As the patient
- ☐ As the parent/carer of a child who is the patient
- ☐ As the family member/carer of an adult patient who is unable to give their views
- ☐ On behalf of an adult patient who I have accompanied, the information and views below are theirs

How many times have you seen a Practice Nurse (PN) before this visit?

- ☐ 0 (this is the first time I've seen a PN)
- ☐ 1 to 2
- ☐ 3 to 4
- ☐ 5 to 8
- ☐ 9 to 12
- ☐ More than 12 times

Who was your appointment with today?

- ☐ A GP
- ☐ A Practice Nurse
- ☐ I did not have an appointment

Who did you see during your visit today?

- ☐ A GP and the Practice Nurse
- ☐ Only the Practice Nurse

Did you expect to see a Practice Nurse when you came to the practice today?

- ☐ Yes
- ☐ No
- ☐ It was a possibility

What was the main reason for your visit today? (please mark all that apply)

- ☐ General check up
- ☐ New problem
- ☐ Ongoing problem
- ☐ Medical test
- ☐ Follow-up from my previous visit
- ☐ Child health check
- ☐ Vaccination
- ☐ Advice on managing a problem
- ☐ Help organizing things

Overall, to what extent do you agree or disagree with the following statements?



Strongly disagree

Neutral



Strongly agree

N/A

It was easy to make an appointment to see a Practice Nurse at a time that suited me

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

It was easy to make an appointment to see a Practice Nurse quickly when I needed it

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

2 What did the Practice Nurse do for you today?

Which of the following procedures did the Practice Nurse perform?
(mark as many options as appropriate)



- | | |
|--|---|
| <input type="checkbox"/> Wound Care / Dressing | <input type="checkbox"/> Take blood for a blood test |
| <input type="checkbox"/> Vaccination | <input type="checkbox"/> Collect urine for a urine test |
| <input type="checkbox"/> Other injection | <input type="checkbox"/> Collect tissue for a test (e.g. skin cancer) |
| <input type="checkbox"/> Ear washing / syringe | <input type="checkbox"/> ECG or other heart assessment |
| <input type="checkbox"/> Treatment of minor illnesses | <input type="checkbox"/> Blood pressure measurement |
| <input type="checkbox"/> First aid or emergency procedure | <input type="checkbox"/> Lung function / spirometry / peak flow |
| <input type="checkbox"/> Removed stitches or staples (sutures) | <input type="checkbox"/> Blood sugar levels |
| <input type="checkbox"/> Provide oxygen or spacer therapy | <input type="checkbox"/> Sexual health check-up |
| <input type="checkbox"/> Cervical smear | |

Which of the following did the Practice Nurse perform? (mark as many options as appropriate)



- | | |
|---|---|
| <input type="checkbox"/> Health assessment (e.g. annual health checks / Free Annual Diabetes Check) | <input type="checkbox"/> Take details of your medical history |
| <input type="checkbox"/> Give you test results | <input type="checkbox"/> Arrange health services that you needed assistance in accessing |
| <input type="checkbox"/> Lifestyle risk factor counselling (eg QUIT smoking, weight management, cholesterol management) | <input type="checkbox"/> Check medications you are currently taking |
| <input type="checkbox"/> Give you information / education on how to manage your health / disease / illness | <input type="checkbox"/> Liaise with other health professionals and community organisations |
| <input type="checkbox"/> Develop or review a care plan to help manage your disease / illness | <input type="checkbox"/> Child health check |
| <input type="checkbox"/> Help you book or follow up appointments with other care providers | <input type="checkbox"/> Care Plus appointment |
| | <input type="checkbox"/> Travel health advice |
| | <input type="checkbox"/> Chronic disease management |



3 About the Practice Nurse today

Please mark NA if the item does not apply to you, or if you cannot answer.

To what extent do you agree or disagree with the following statements about the Practice Nurse (PN)?	(Please mark ONE BOX on each row)					N/A
	 Strongly disagree	Neutral		 Strongly agree		
The PN explained everything clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN was very thorough	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN helped me understand what the GP said	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN seemed to be up to date with health information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN gave me useful advice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN and GP worked well as a team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN encouraged me to ask questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN was caring and concerned about me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN spent enough time with me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN was patient with my questions or worries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN respected me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN paid attention to what I had to say	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN was friendly and warm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4 Final thoughts about this visit
Please mark NA if the item does not apply to you, or if you cannot answer.

Overall, how satisfied are you with ... ?	 Very dissatisfied				 Very satisfied	N/A
The service provided by this practice in general	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The consultation with your GP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The consultation with the PN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thinking about the time you spent with the Practice Nurse (PN) today, to what extent do you agree or disagree with the following statements?	 Strongly disagree		Neutral		 Strongly agree	N/A
I will follow the PN's advice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I trust the PN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel confident in the PN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The PN was confident in my ability to look after my health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would be happy for a PN to perform this procedure again	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the GP asked me, I would give positive feedback about the PN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would recommend this PN to my family and friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5 About you, the patient, parent or carer
Please mark NA if the item does not apply to you, or if you cannot answer.

What is your gender? <input type="checkbox"/> Male <input type="checkbox"/> Female	What is your current residential postcode? <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
In which year were you born? <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Which concession cards issued by the New Zealand government do you hold? Please mark all that apply. <input type="checkbox"/> Community Services Card <input type="checkbox"/> High User Health Cards <input type="checkbox"/> Gold Card <input type="checkbox"/> Other <input type="checkbox"/> None of the above	Which best describes your employment status? <input type="checkbox"/> Full time <input type="checkbox"/> Part time <input type="checkbox"/> Casual <input type="checkbox"/> Unpaid or volunteer <input type="checkbox"/> Engaged in home duties <input type="checkbox"/> Currently unemployed and seeking work <input type="checkbox"/> Currently unemployed and not seeking work <input type="checkbox"/> Retired from work <input type="checkbox"/> Student
Do you have private health insurance? <input type="checkbox"/> Yes <input type="checkbox"/> No	
What is your ethnicity? <input type="checkbox"/> European <input type="checkbox"/> Maori <input type="checkbox"/> Pacific Peoples <input type="checkbox"/> Asian <input type="checkbox"/> Middle Eastern / Latin American / African <input type="checkbox"/> Other Ethnicity	What language do you speak at home? <input type="checkbox"/> English <input type="checkbox"/> Maori <input type="checkbox"/> Pacific Island <input type="checkbox"/> Chinese <input type="checkbox"/> Sign Language <input type="checkbox"/> Other



6 About your health

The following information will help us to understand your needs and views.

At the moment, how satisfied are you with...?	(Please mark ONE BOX on each row)					
	 Very dissatisfied				 Very satisfied	N/A
Life in general	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your current state of health in general	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Overall, compared to 12 months ago, how do you feel about your health now?

☐ I feel worse than last year ☐ I feel the same as last year ☐ I feel better than last year

To what extent do you agree or disagree with each of the following statements about your physical health?	 Strongly disagree				 Strongly agree	N/A
		Neutral				
My social activities with family and friends are NOT limited by my physical health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My ability to do normal physical activities (eg walking) is NOT limited by my health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My work, school or other daily activities are NOT limited by my physical health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My ability to do vigorous physical activities (eg playing sport) is NOT limited by my health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent do you agree or disagree with the following statements?	 Strongly disagree				 Strongly agree	N/A
		Neutral				
I feel healthy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have enough energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel calm and peaceful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My health is consistent with my life goals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel confident in my ability to be healthy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is very important for me to be as healthy as possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have decided that I want to be healthy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have thought carefully about my health and believe it is important for many aspects of my life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to do things that I believe are best for my health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I actively try to prevent disease and illness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know how to use the health information I find to help me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I seek out health information that answers my health questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel confident in using information to make decisions about my health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Before making a decision about my health, I find out everything I can about the issue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I really enjoy learning about health issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for your feedback.

Check that you have answered all questions and place the completed survey in the Reply Paid envelope provided. Please post the survey as soon as possible.



If you have misplaced the Reply Paid envelope, you can post the completed survey to NZCPHC Nurses Survey, 130 Colyton Road, R D 5, Feilding 4775.