# Local clinical pathways: from 'good ideas' to 'practicality' for general practitioners

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#### **ABSTRACT**

**INTRODUCTION:** There has been increased interest in the utility of clinical pathways by primary health care in New Zealand, although evaluation of their use has been limited.

AIM: To identify barriers and facilitators for the use of clinical pathways in one health region.

**METHODS:** Interviews with 15 general practitioners in the Western Bay of Plenty. A qualitative thematic analysis was undertaken, informed by the Diffusion of Innovation Framework.

**RESULTS:** Four themes were identified: learning to use the pathways, persuasion and decision to use, implementation and sustainability. Barriers to using the pathways included time pressure; scepticism; difficulty in portraying patients' clinical picture within a set pathway; technical difficulties and lack of support in obtaining knowledge; and practical implementation of the pathways in daily work. Facilitators included endorsement by opinion leaders; pathways directing workup and treatment stepwise towards referral; centralised information with resources available in the consultation; and reported increased acceptance of referrals by secondary care if pathways were used.

**DISCUSSION:** The development and implementation of health care initiatives requires an understanding of the local context. Knowledge about the specific, locally appreciated barriers and facilitators can inform future health-care developments. The Diffusion of Innovation Framework offers a practical model to understand effective implementation.

KEYWORDS: clinical pathways; general practice; diffusion of innovation; barriers; facilitators

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#### Introduction

Clinical pathways have four broad aims: to translate national evidence-based clinical guidelines into local guidance; to set out the components of care required in a pathway; to provide criterion-based progression through the health system; and to standardise care for a specific clinical condition in a specific local population.¹ Clinical pathways can simplify navigating a health system and lead to less fragmentation and greater collaboration between primary and secondary care.² In both New Zealand (NZ)³ and Australia,⁴ clinical pathways have been widely adopted as a way to provide localised evidence-based clinical practice and referral, notably through the Canterbury HealthPathways initiative, which

is now widely used in both countries.<sup>3</sup> There is, however, limited evaluation of their effectiveness in improving clinical care<sup>5–7</sup> and in assessing the barriers and facilitators<sup>8</sup> to their use by general practitioners (GPs).

The Bay Navigator Pathways (BNPs) was launched in 2011 as an information and communication portal for all health professionals in the Bay of Plenty (BOP). BNPs use web-based flow diagrams to direct doctors to treatment modalities available in the community. If referral to specialist services is indicated, BNPs indicate which laboratory, radiology or other test result(s) must the included in the referral letter. Some BNPs are integrated into an electronic referral

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#### WHAT GAP THIS FILLS

What is already known: Clinical pathways are now widely used in New Zealand to improve clinical care and further health-care integration between primary and secondary care.

What this study adds: Using the Diffusion of Innovation Framework, barriers and facilitators to the acceptance and use of clinical pathways (Bay Navigator Pathways) by general practitioners were identified.

(eReferral) and available on practice Patient Management Systems (PMS).

We investigated the barriers and facilitators to acceptance and use of BNPs by GPs in the Western BOP. The study aims were to explore reasons for the use of BNPs among GPs; to identify barriers to use; and ways the utility of BNPs could be improved.

#### Methods

#### **Design and sampling**

Semi-structured interviews were conducted between April and September 2015 with GPs working in the Western BOP. The BOP District Health Board provides health care to 214,910 people. <sup>12,13</sup> Twenty-seven medical practices are part of the Western BOP Primary Health Organization (PHO) – stretching from Te Puke to Waihi Beach. <sup>14</sup> During the initial phase of the research, the 181 GPs associated with these practices were sampled purposively (Table 1) to construct a maximum variation sample.

#### **Data collection**

The interviews used a topic guide with openended prompts (Appendix 1). Individual face-to-face interviews of 30 and 45 min were conducted by A. Reyneke. After 15 interviews, data saturation was reached.

#### **Data analysis**

A thematic analysis was undertaken, informed by the Diffusion of Innovation Framework. <sup>15,16</sup> Implementation science theory is increasingly

being used to inform evaluation research and provided a suitable theoretical framework.<sup>17</sup> The framework provided a template that allowed barriers and facilitators to acceptance and use of BNPs to be described according to a pre-existing set of criteria, similar to the template-organising approach described by Crabtree and Miller.<sup>18</sup> The Diffusion of Innovation Framework was originally developed by Rogers and is a 'stages of change' theory. 16,17 It details the process through which individuals, over time, move from learning about an innovation towards forming an attitude towards the innovation. The innovation may be adopted or rejected. Adoption is followed by a process of implementation. The last phase is to sustain or confirm the ongoing implementation.

For the present study, the elements of the innovation decision described by Rogers were slightly adapted to the study aims (Theme 1) while providing a thematic template for analysing the data (Themes 2–4), being open to *de novo* and emergent concepts. This is expressed in Figure 1. The process flow may not always be uniformly in one direction. For example, there may be multiple interactions between phases 2 and 3, when implementation hiccups cause GPs to revert back to the decision phase to re-evaluate their commitment to the Bay Navigator process. The analysis was conducted using NVivo (QRS International, www.qsrinternational.com/nvivo/nvivo-products/nvivo-12-windows.aspx).

Ethical approval for this project was granted by the University of Otago Ethics Committee (14/187).

#### Results

Fifteen GPs were interviewed. The characteristics of GPs and their general practices are shown in Table 1.

#### Theme 1. Learning about BNPs

General practitioners learned about BNPs through their practices, particularly during peer group activities. One GP from the team frequently became the authority on a specific BNP. GPs commonly browsed the BNPs website, although time was a barrier.

'Claim this toward your MOPS points. I think that would allow people to do them themselves and learn how to navigate their way around the Pathways, which are quite complicated and not straightforward. If you don't know it's there, you can't look at it.' [Participant 9]

Participants were heavily swayed towards more positive valuation of a clinical pathway if an opinion leader (GP or specialist) motivated and explained a particular BNP at continuing professional development (CPD) meetings. Barriers mentioned included time and venue, and other family responsibilities.

'But it still involves you sitting down, reading it, working your way through it. That's another unit of time, whatever that happens to be.' [Participant 5]

Distributing BNPs electronically was hampered by information overload. Email prompts were suggested as ways to overcome this.

# Theme 2. Persuasion and decision to use BNPs

Interviewees talked freely about the difficulties that they experienced and technology they had to master to use BNPs. The circular movement of persuasion, followed by attempted implementation leading to failure and review, with adaption and retrial, was visible through the narratives of some of the interviewees.

'When it first came in I hated it because usually you see a patient, you do the examination maybe you order an X-ray or not and then, in your own time, you do the referral. Now what this has actually made me do now is I say to the patient there is a referral form which I have to fill in accurately in order for your grading to see if you're going to get your appointment. Once you've had your X-ray, or once you've tried your painkillers and they haven't worked, you will have to come back, and we will do the examination and put in the dedicated template referral at the time of your consult.' [Participant 4]

Many interviewees commented on the pressured work milieu.

'You're not only trying to juggle a full-time role as a [omitted] GP, but sorting out issues around build-

ing code of compliance, when financial reports are due to the auditors, all that sort of stuff has to be done.' [Participant 2]

Participants reported that BNPs and its website frequently experienced development and technology glitches. BNPs were deemed unfit for use in some clinical situations. Concern about the Pathways interfering with consultation aspects or

Fig. 1. A thematic template for analysing the data

Development of Bay	Persuasion	Implementation	Sustainability
Navigator Pathways	Decision	<b>—</b> ),	confirmation
To form an attitude towards an innovation, the individual has to know about the	This theme is about factors that persuaded or concerned the participants about	There was limited implementation of BNP by participants. BNP that was regularly used	This theme explores ideas towards the future and suggestions on how
innovation.	the BNP, and the barriers and facilitators in making the decision to trial the BNP.	became automatic practice, without need to refer back to the BNP.	more user-friendly.

Table 1. Characteristics of GPs and their general practices

Characteristic	Male	Female
Gender	8	7
Training		
New Zealand trained	4	3
Overseas trained	4	4
Hours worked		
4/10 – 5/10	0	3
6/10 – 7/10	1	3
8/10 – 9/10	7	1
Practice location		
Urban	6	5
Semi-rural	2	1
Rural	0	1
Employment		
Locum	0	1
Employed	3	3
Owner	5	2
Independent contractor	0	1
Years in Western BOP PHO		
<2y	0	1
2–3y	2	3
5–10y	1	2
>10y	5	1

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delaying referral deterred some GPs from using them.

'I felt annoyed because I tried to explain the reason why this particular patient was very difficult to manage.' [Participant 10]

'It doesn't always fit in with what clinical picture I'm trying to portray.' [Participant 8]

Integration of BNPs into eReferral was mentioned as both a barrier and facilitator. For example, practicalities such as how to save and restore and how to express the clinical picture within the constraints of the eReferral evoked many comments, both positive and negative. Internet speed, access and cost of upgrading practice computer systems resulted in reluctance to use the webbased BNPs.

BNPs can facilitate better communication and understanding between GPs and specialists, and have the potential to improve both knowledge and the referral process.

'Because not only do they provide up to date, they also provide information on how the hospital and primary care interfaces with each other. It's useful for everyone I think.' [Participant 10]

One interviewee felt that BNPs were narrow in scope and too prescriptive. GPs had concerns that BNPs could not adequately cover the diversity of patient presentations and patient requirements.

'I still find that someone who's a mother or someone who's at school and has three or four days off at a time [due to tonsillitis] even if it's happening three times a year, I think personally [they] should have their tonsils out because they are an ongoing problem, as opposed to a three-year-old where they might grow out of it. I don't find that one size fits all with health.' [Participant 8]

GPs can have relatively fixed daily work routines, and some GPs were nostalgic about changes to tradition:

Twe gotten into a pattern over the years of writing a letter. I can be very efficient in that.

Part of me is a little bit sad that my efficiency will be challenged by the BNP.' [Participant 6]

Participants felt that BNPs added extra work, without remuneration, due to the restructuring of services now delivered in primary rather than secondary care:

'So, if someone says [name omitted] could you please do this extra task, in a business that is not publicly funded but is privately funded by capital why should [own name omitted]'s family pay for the extra service that the District Health Board is no longer providing?' [Participant 1]

Participants described a range of different emotions created by BNPs. These included feeling disempowered, overwhelmed, coerced, punished and intimidated by the implementation process of BNPs.

General practitioners should be aware of changes in medical evidence and the need for ongoing improvement in practice. Innovation prompts GPs to self-reflect – not only on their attitudes, but also on their daily practice. BNPs can be perceived as a challenge to GPs' autonomy. Defensiveness complicates persuasion to trial BNPs.

'You have to be open to...you have to be this little person who's open to challenging your own practice.' [Participant 10]

This theme illustrates the conflicting perspectives among participants regarding elements of BNPs that influenced them towards and against the use of BNPs. Some aspects remain open to GPs to interpret and access in the light of their own practice milieu, personality and preparedness to change.

#### Theme 3. Implementation

Overall, the use of BNPs was reported as being low, with use two or three times per week as the highest number mentioned. Participants argued that, because of increasing knowledge of the prerequisites of BNPs, the need to actually refer to the pathway diminishes with time.

'Do I access them every week? No, because I don't think you have to. If you're using the same referral for chronic care, you soon learn what is required.' [Participant 9]

#### Theme 4. Sustainability

Participants offered practical tips to simplify BNPs, thereby making them more likely to be used. One suggestion was an icon on the tool bar leading directly to BNPs, with the ability to bookmark favourites and creating personalised shortcuts. eReferrals were generally well received. Changes suggested to eReferral were free-text availability on the tick box format should patient circumstances needed to be accentuated. Shortening BNPs were suggested. Printable patient information sheets from the same website could streamline consultations.

Participants suggested monthly updates to keep up to date with changes to BNPs and newly developed Pathways. Video and podcast uploads to the Bay Navigator website would allow access when convenient.

'Have the talk actually videoed and you could download it from the PHO as a podcast, and that would be really, really useful.' [Participant 3]

In as far as BNPs are a way of ethical distributive rationing, one participant reflected concerns of how to meet increasing patient needs effectively and efficiently.

'If we do this right, and our GP colleagues at the coal face refer to us with the right information, our job will be so much easier, and the patient's experience will be so much better and the people who need it will get it earlier etc. etc., so there is the need, the limited resources of whatever this business is it's called ethical rationing.' [Participant 1]

#### The future of BNPs

In response to a prompt asking if participants saw a future for BNPs, eight participants were affirmative. Some did not comment. Two expressed reservations.

'I haven't a clue. I think, well, let's...maybe if I have a crystal ball, I would imagine that.. I think that will expand.. I'm reasonably sure that more and more conditions will become accessible to pathways.' [Participant 10]

'I don't think it's a bad thing. I'm sure it's here to stay in some form or another. It is a matter of trying to improve it, isn't it? Get the best out of it.'

[Participant 5]

The nuance that BNPs must be auditable and responsive as medical knowledge and systems change, was an expectation from the participants.

'It's evolving, if you look at how it was in the beginning to how it is now, it has evolved. And it will constantly change, and hopefully eventually get more easier.' [Participant 14]

#### Discussion

It is now more than 5 years since the initial launch of BNPs. Movement from the new innovation as a 'good idea' to an everyday, used in-practice, implemented innovation had not fully occurred at the time of the study's data collection in 2015–16. The barriers to adaption and use included pragmatic and technology issues, time famine and lack of familiarity with BNPs and experience of their utility.

Facing healthcare delivery challenges, better alliance between healthcare sectors is essential. 19-22 Care provided at the right time, right place and by the right provider are hallmarks of integrated care. 23 The aim of BNPs is to facilitate cooperation between all role players in health care, ensuring that patients receive timely, appropriate and local quality medical services. However, our findings suggest that participants were most concerned with how BNPs have affected general practice and GPs rather than the broader aims of BNPs. Others have also found that the strategic vision of the role of HealthPathways is not well understood. 24

Previous research into the acceptance and use of HealthPathways has used analysis of grey literature (C. Davy, pers. comm.), online portal

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access,<sup>25</sup> systematic review of peer-reviewed and grey literature,<sup>6</sup> online survey questionnaire<sup>26</sup> or mixed-method approaches.<sup>7,24</sup> Qualitative research allowed a more nuanced understanding of the barriers and facilitators to acceptance and use of BNPs, facilitating deeper insight into GP uptake and engagement with BNPs, and showing how general practice is oriented towards improved patient experiences and outcomes.

We consider that our analytic approach was strengthened using a specific implementation science theory – the Diffusion of Innovation Framework. <sup>16</sup> This framework had strong pragmatic appeal for understanding GPs' various engagement with BNPs. GPs had to become familiar with BNPs, form an attitude towards it, trial it and decide to either adopt or reject this innovation.

Our study confirms many of the barriers identified by McGeogh et al. in an online survey about HealthPathways in Canterbury, New Zealand.<sup>26</sup> Time pressure was a common theme as a barrier to the use of BNPs: this included time taken to develop BNPs and to keep up to date with new or changing BNPs, as well as increasing the length of consultations. 26,27 In contrast, participants in this research felt that using BNPs improved the quality and completeness of referrals, increasing the chance that referrals would be accepted, thereby improving time efficiency, confirming previous research.<sup>6,24</sup> GPs can use BNPs as a self-directed learning tool,6 claiming this time as CPD; these aspects also promoted the use of HealthPathways³ by British GPs in South Tyneside, England. 6,24 Technical difficulties posed a barrier to the utility of BNPs for many of our participants. Software incompatibility between Pathway and GP practice management systems proved a barrier to implementation.<sup>25</sup>

A complex clinical picture may be difficult to portray using a standardised eReferral.<sup>24</sup> Similar to other researchers, we found that opinion leaders and specialist involvement in the development and promotion of BNPs can be pivotal to uptake by GPs.<sup>8,26</sup> This not only improves primary–secondary care relationships, Gill *et al.*<sup>7</sup> and Gray *et al.*<sup>25</sup> also indicated that a comprehensive approach to Pathway implementation and

service redesign can lead to improved access to specialist care. BNPs can be a centralised information hub, with local information at the users' fingertips. Brennan *et al.*<sup>6</sup> also found benefits of using pathways included a more unified approach to evidence-based medical care and support for teams seeking alternative diagnoses; neither of these were themes in the current research. While considerable cost savings can be realised through the use of HealthPathways, initial expenditure is necessary.<sup>6,24</sup>

Population health needs are growing. <sup>28</sup> There are inefficiencies and inequities in access to services and variations in health outcomes between populations. <sup>28</sup> The vision of BNPs, if barriers to uptake and implementation can be resolved, is that patients will benefit from reduced patient waiting times and improved access to secondary and tertiary services. <sup>6,7,24,25</sup> When discussing treatment plans with patients and their whānau, BNPs can be a valuable source of information and reassurance.

#### Limitations

Only one geographical area was included in this study (Western BOP); therefore, these findings may be of limited value beyond the Western BOP. However, we suggest that the issues identified in this study location are likely to be relevant to other DHBs implementing clinical pathways such as BNPs or HealthPathways. Another potential limitation is that this study was limited to GPs. The perspectives of other members of the health team might reveal other barriers and potential solutions.

# Implications for clinical practice and policy

The New Zealand Health Strategy (2016) emphasises available and safe health care for all, closer to home, removing inequities. Patient education and using technology in healthcare initiatives are important new targets in the Health Strategy. Good patient care remains mandatory. BNPs underpin quality primary health care and a smooth transition between primary and secondary care where required.

#### Conclusion

We conclude that our exploration of the barriers and facilitators to the use of BNPs shows that they can be a valuable component of the GP toolbox to promote better patient care. One of the challenges for developers of BNPs is how to persuade GPs that BNPs do not detract from the values underpinning general practice: continuity of care, person-centred care and patient advocacy. BNPs have the potential to improve the dialogue between primary and secondary care, thereby leading to improved patient care and outcomes.

#### References

- Kinsman L, Rotter T, James E, et al. What is a clinical pathway? Development of a definition to inform the debate. BMC Med. 2010;8:31. doi:10.1186/1741-7015-8-31
- Mansfield SJ, Quirk F, Van Treuer K, Gill G. On the right path? Exploring the experiences and opinions of clinicians involved in developing and implementing HealthPathways Barwon. Aust Health Rev. 2016;40:129–35. doi:10.1071/ AH15009
- Canterbury District Health Board. The Canterbury Initiatives Working together at primary secondary interface;
   2018. [cited 2018 August 14]. Available from: www.canterburyinitiative.org.nz/Home.aspx
- Robinson S, Varholl R, Bell C, et al. HealthPathways: creating a pathway for health system reform. Aust Health Rev. 2015;39:9–11. doi:10.1071/AH14155
- Rotter T, Kinsman L, James E, et al. The quality of the evidence base for clinical pathway effectiveness: room for improvement in the design of evaluation trials. BMC Med Res Methodol. 2012;12:80. doi:10.1186/1471-2288-12-80
- Brennan N, Mattick K, Ellis T. The Map of Medicine: a review of evidence for its impact on healthcare. Health Info Libr J. 2011;28:93–100. doi:10.1111/j.1471-1842.2011.00940.x
- Gill SD, Mansfield S, McLeod M, et al. HealthPathways improving access to care. Aust Health Rev. 2018. doi:10.1071/AH17090
- Farquhar CM, Kofa EW, Slutsky JR. Clinician's attitudes to clinical practice guidelines: a systematic review. Med J Aust. 2002;177(9):502–6.
- Bay Navigator. The Bay of Plenty's leading clinical resource. [cited 2018 August 14]. Available from: http:// baynav.bopdhb.govt.nz/
- Ratcliffe L. Bay Navigator sets sail into new phase NZDoctor; 2012. [cited 2016 November 15]. Available from: www.nzdoctor.co.nz/news/2012/april-2012/20/bay-navigatorsets-sail-into-new-phase.aspx
- Bay Navigator Pathways. The Bay of Plenty's leading clinical resource. [cited 2016 November 15]. Available from: http://baynav.bopdhb.govt.nz/pathways/
- Bay of Plenty District Health Board. Ministry of Health. [cited 2015 September 1]. Available from: www.health. govt.nz/new-zealand-health-system/my-dhb/bay-plenty-dhb
- Bay of Plenty District Health Board Hauora A Toi. [cited 2016 October 25]. Available from: www.bopdhb.govt.nz/ your-dhb/about-your-dhb/

- 14. WBOP PHO. ©2013. [cited 2015 September 7]. Available from: www.wboppho.org.nz/about-us/meet-our-board.
- Thomas DR. A general approach for qualitative data analysis. Auckland: School of Population Health, University of Auckland; 2003. [cited 2018 March 6]. Available from: www.frankumstein.com/PDF/Psychology/Inductive%20 Content%20Analysis.pdf
- 16. Rogers E. Diffusion of Innovations. 5th edn. New York: Free Press; 2003.
- Grol RPTM, Bosch MC, Hulscher MEJL, et al. Planning and studying improvement in patient care: the use of theoretical perspectives. Milbank Q. 2007;85(1):93–138. doi:10.1111/j.1468-0009.2007.00478.x
- Crabtree B, Miller W. Using codes and code manuals; a template organising style of interpretation. In: Doing Qualitative Research, 2nd edn. Crabtree B, Miller W, editors. Thousand Oaks, CA: Sage; 1999: p.163–177.
- The Primary Health Care Strategy. Ministry of Health;
   2001. [cited 2016 October 25]. Available from: http://www.health.govt.nz/publication/primary-health-care-strategy
- New Zealand Health Strategy 2016. Ministry of Health;
   2016. [cited 2016 October 25]. Available from: http://www.health.govt.nz/publication/new-zealand-health-strate-ov-2016
- González-González AI, Dawes M, Sánchez-Mateos J, et al. Information needs and information-seeking behaviour of primary care physicians. Ann Fam Med. 2007;5(4):345–52. doi:10.1370/afm.681
- Toop L. Steps towards more integrated care in New Zealand: a general practice perspective. Br J Gen Pract Open. 2017;1(1). doi:10.3399/bjgpopen17X100845
- Kenealy TW, Sheridan NF, Connolly MJ. HealthPathways website: making the right thing the easy thing to do? NZ Med J. 2015;128(1408):6–9.
- Akehurst J, Sattar Z, Gordon I, Ling J. HealthPathways implementation in South Tyneside (phase one-second report); 2017. [cited 2018 March 13]. Available from: http:// www.necsu.nhs.uk/wp-content/uploads/2017/12/Health-Pathways-implementation-South-Tyneside.pdf
- Gray JS, Swan JR, Lynch MA, et al. Hunter and New England HealthPathways: a 4-year journey of integrated care. Aust Health Rev. 2018;42:66–71.
- McGeoch G, McGeogh P, Shand B. Is HealthPathways effective? An online survey of hospital clinicians, general practitioners and practice nurses. N Z Med J. 2015;128(1408):36–46.
- McGeoch G, Anderson I, Gibson J, et al. Consensus Pathways: evidence into practice. N Z Med J. 2015;128(1408):86–96.
- 28. Robinson S, Varhol R, Bell C, et al. HealthPathways: creating a pathway for health system reform. Aust Health Rev. 2015;39:9–11. doi:10.1071/AH14155

**COMPETING INTERESTS** None.

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#### Appendix 1. Interview topic guide

Participant general information: (might get this information from conversation prior to interview, or may be asked specifically during or after interview)

Gender	
Ethnicity	
Years in WBOP general practice	
Full time/part time	
Salaried/self-employed	
Rural/urban practice	
Solo/group practice	

#### Interviewer disclosure:

Thank you for setting time aside today to discuss your views on the Bay Navigator Pathways with me. I am Anel Reyneke, a General Practitioner in Papamoa.

I chose to research the Bay Navigator Pathways, because of my own experiences with patient's ongoing care in clinical practice.

Please be assured that there are no right or wrong responses to any of my questions. Your insight and ideas are appreciated and highly valued. You were given an information sheet with more information about the research project, and thank you for signing the consent form. You are aware that the interview will be recorded.

#### (Warm up question)

Tell me a bit about your practice and a typical day for yourself in general practice:

#### Let us talk about the Bay navigator Pathways:

- 1. What is your understanding of why the Bay Navigator Pathways were developed? (*alternative phrase can be why did BOP GPs need BNP?*)
- \* Probe: beliefs about Bay Navigator Pathways or what was the problem that they were designed to solve?
  - 2. Were you involved with the development of any of the Bay Navigator Pathways?
- $^{\star}$  If so how does your involvement with the BNP development contribute to your use of the Pathways?
  - 3. How often do you use the Bay Navigator Pathways?
- \* Probe for reasons for use/non-use
  - 4. How useful do you find the Bay Navigator Pathways?
- \* Probe for barriers/facilitators

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(Hopefully question 5 will be unnecessary if Question 4 discussion led into experiences)

- 5. Can you tell me about specific experiences using the Bay Navigator Pathways?
- \* Positive
- \* Negative

Probe for Barriers and facilitators

Let us now try to make the use of the Bay Navigator Pathways practical 8 how you fit it into consultation:

(Use an example of a specific Pathway that the interviewee mentioned in Question3/4/5)

6. When your patient present with (*suspected colorectal cancer/suspected TIA/major joint OA*) – how will you integrate the Pathway into your management of the patient?

Probe for effect of Pathway on

- Doctor
- Consultation
- Referral process
- Patient 8 patient outcome (?discuss this with patient, motivate patient to do required blood tests, etc)
- 7. In your view, how does the Bay Navigator Pathways affect the integration of primary and secondary care?

#### Bay Navigator pathways in the wider NZ context:

- 8. How do you see the future of Bay Navigator Pathways?
- 9. Which changes or improvements would you like to see in Bay Navigator Pathways?
- 10. Do you think that Bay Navigator Pathways may be suitable for use in other DHBs?
- 11. Anything else you would like to mention?