Evaluation of the Bowel Screening Pilot – Baseline Provider Survey Findings

Ministry of Health
Manatū Hauora

23 May 2012
## Contents

Preface 5

1. Executive summary 6
   1.1 Background 6
   1.2 Methodology 6
   1.3 Key findings 6
   1.4 Implications for the Bowel Screening Pilot 7
   1.5 Implications for the Bowel Screening Pilot Evaluation 8

2. Introduction 9
   2.1 Background 9
   2.2 Survey purpose 10

3. Survey methodology 11
   3.1 Questionnaire design and pretesting 11
   3.2 Survey design and sampling approach 11
   3.3 Response rates and representativeness 13
   3.4 Sample description 15
   3.5 Analysis 16
   3.6 Methodological limitations 17

4. Awareness and knowledge 18
   4.1 Awareness of the Bowel Screening Pilot 18
   4.2 Sources of information about the Bowel Screening Pilot 19
   4.3 Knowledge about the Bowel Screening Pilot 21
   4.4 Awareness of role in the Bowel Screening Pilot 22
   4.5 Awareness of role of the New Zealand Familial Gastrointestinal Cancer Registry 27

5. Attitudes 29
   5.1 Concern about bowel cancer rate 29
   5.2 Perceived importance of role in the Bowel Screening Pilot 30
   5.3 Support for immunochemical faecal occult blood test 31
   5.4 Support for the Bowel Screening Pilot 32
   5.5 Support for a national bowel screening programme 33

6. Implementation 34
   6.1 Confidence in explaining the Bowel Screening Pilot to patients 34
   6.2 Expected performance in the Bowel Screening Pilot 35
   6.3 Expected impact of Bowel Screening Pilot on workload 40
   6.4 Perceived capacity of services as part of the Bowel Screening Pilot 41
   6.5 Perceived effectiveness of service interface 48
   6.6 Other qualitative feedback on the Bowel Screening Pilot 55

7. Discussion 57

8. Bibliography 61
Appendix 1.0: Baseline Provider Survey

Appendix 2.0: Results of Q20, Q21, Q22 and Q23

List of tables

Table 1: Achieved response rates
Table 2: Margins of error for percentages from each survey, assuming random non-response
Table 3: Key demographic variables, all provider groups
Table 4: General practice information, general practitioners, practice nurses and/or other staff

List of figures

Figure 1: Provider awareness of the Bowel Screening Pilot, all provider groups
Figure 2: Sources of information about the Bowel Screening Pilot, general practitioners and practice nurses
Figure 3: Sources of information on the Bowel Screening Pilot, endoscopy and radiology staff
Figure 4: Agreement with statement ‘I am not well informed about the BSP’, all provider groups
Figure 5: Perceived patient eligibility and participation activities for general practice role in the Bowel Screening Pilot, general practitioners, practice nurses and/or other staff
Figure 6: Perceived notification and referral activities for general practice role in the Bowel Screening Pilot, general practitioners, practice nurses and/or other staff
Figure 7: Perceived patient follow-up and liaison activities for general practice role in the Bowel Screening Pilot, general practitioners, practice nurses and/or other staff
Figure 8: Perceived results notification, pre-assessment and referral activities for Waitakere Hospital Endoscopy Unit role in the Bowel Screening Pilot, endoscopy staff
Figure 9: Perceived service and result notification activities for Waitakere Hospital Endoscopy Unit role in the Bowel Screening Pilot, endoscopy staff
Figure 10: Awareness of the role of the New Zealand Familial Gastrointestinal Cancer Registry, all providers
Figure 11: Bowel cancer death rate in New Zealand is a significant concern, all providers
Figure 12: Perceived importance of role in the Bowel Screening Pilot, all providers
Figure 13: Support for use of immunochemical faecal occult blood test as screening test for the Bowel Screening Pilot, all providers
Figure 14: Support for the Bowel Screening Pilot in Waitemata District Health Board, all providers
Figure 15: Support for introduction of a national bowel screening programme, all providers
Figure 16: Confidence in explaining the Bowel Screening Pilot to patients, all providers
Figure 17: Expected performance of participation and eligibility activities over next 12 months of Bowel Screening Pilot, general practitioners, practice nurses and/or other staff
Figure 18: Expected performance of notification and referral activities over next 12 months of Bowel Screening Pilot, general practitioners, practice nurses and/or other staff

Figure 19: Expected performance of patient follow up and liaison activities over next 12 months of Bowel Screening Pilot, general practitioners, practice nurses and/or other staff

Figure 20: Expected performance of results notification, pre-assessment and referral activities over next 12 months of Bowel Screening Pilot, endoscopy staff

Figure 21: Expected performance of service and result notification activities over next 12 months of Bowel Screening Pilot, endoscopy staff

Figure 22: Expected impact of the Bowel Screening Pilot on workload, all providers

Figure 23: Perceived capacity of laboratory services for Bowel Screening Pilot, all providers

Figure 24: Perceived capacity of colonoscopy services at Waitakere Hospital Endoscopy Unit for Bowel Screening Pilot, all providers

Figure 25: Perceived capacity of CT colonography services for Bowel Screening Pilot, all providers

Figure 26: Perceived capacity of secondary care services for bowel cancer, all providers

Figure 27: Perceived capacity of general practice notification of immunochemical faecal occult blood test results and referral to Waitakere Hospital Endoscopy Unit, all providers

Figure 28: Perceived capacity of management and recall for patients with increased risk of bowel cancer, all providers

Figure 29: Perceived capacity of Bowel Screening Pilot Coordination Centre, all providers

Figure 30: Perception of service interface between general practice and Waitakere Hospital Endoscopy Unit, general practitioners, practice nurses and/or other staff

Figure 31: Perception of service interface between general practice and Waitakere Hospital Endoscopy Unit, endoscopy staff

Figure 32: Perception of service interface between general practice and Bowel Screening Pilot Coordination Centre, general practitioners, practice nurses and/or other staff

Figure 33: Perception of service interface between Waitakere Hospital Endoscopy Unit and Bowel Screening Pilot Coordination Centre, endoscopy staff

Figure 34: Perception of service interface between Waitakere Hospital Endoscopy Unit and North Shore Hospital–Waitakere Hospital radiology services, endoscopy and radiology staff
Preface

This report has been prepared for the Ministry of Health by Ingrid McDuff, Kiri Milne and Liz Smith from Litmus Limited. We acknowledge Reid Research Services Limited for conducting the online survey and thank James Reilly from Statistical Insights Limited for his expert advice on survey data analysis.

We acknowledge and thank all those who participated in the surveys. We also thank:

- Primary Health Organisations for sending the survey and survey reminders to general practices; in particular, we would like to acknowledge Michelle Bonnici (Procare) and Jackie Fleming (Waitemata Primary Health Organisation) for their support and advice
- Carolyn Czepanski (Endoscopy Unit, Waitakere Hospital) and Leith Hart (Radiology, North Shore Hospital) for assisting with distribution of the survey to Waitemata District Health Board endoscopy and radiology staff
- Professor Scott Ramsey for his expert review of the BSP Evaluation Plan prepared by Litmus Limited and Sapere Research Group
- Members of the Ministry of Health’s Evaluation Advisory Group for their expert review comments on the BSP Evaluation Plan and draft survey questionnaires
- Litmus’ Governance Group members for their specialist screening evaluation advice and for their comments on this report: Associate Professor Barry Borman and Dr Deborah Read
- Staff in the BSP teams at the Ministry of Health and the Waitemata District Health Board for supporting the BSP Evaluation.

Please contact Kiri Milne (kiri@litmus.co.nz) or Liz Smith (liz@litmus.co.nz) if you have any questions about this report.
1. Executive summary

1.1 Background

The Ministry of Health (MoH) has funded Waitemata District Health Board (WDHB) to run a Bowel Screening Pilot (BSP) over four years from 2012–16. An evaluation of the BSP is being undertaken by Litmus and Sapere Research Group, the results of which will contribute to a decision on whether or not to roll out a national bowel screening programme. The goal of the evaluation is to determine whether organised bowel screening could be introduced in New Zealand in a way that is effective, safe and acceptable for participants, equitable and economically efficient.

An online survey of health providers is one of the planned evaluation activities. The purpose of the provider survey is to assess providers’ awareness and knowledge of the BSP, attitudes towards the BSP and its delivery mechanisms, and perceived impact of the BSP on normal services. The survey also aims to measure attitudes towards a possible national roll-out of a bowel screening programme. This report presents findings from the baseline provider survey undertaken with general practitioners (GPs), practice nurses, endoscopy staff and radiology staff in WDHB. Follow-up provider surveys will be undertaken in 2013 and 2015, which will enable changes in providers’ awareness, knowledge, attitudes and perceptions to be tracked over time.

1.2 Methodology

The survey was conducted before the full implementation of the BSP. Questionnaire development incorporated advice from a range of experts. Draft questionnaire content was pretested with primary care and endoscopy staff. The questionnaire was structured to enable different providers to answer different questions, relevant to their role.

The survey was delivered online over a nine-week period, from November 2011 to January 2012. Providers were emailed a link to complete the survey. A total of 88 GPs, 88 practice nurses, eight other general practice staff, 21 endoscopy staff and 30 radiology staff took part in the survey.

1.3 Key findings

Findings from the baseline provider survey provide indicative and useful information about awareness, knowledge and attitudes to the BSP among WDHB health providers, before the BSP was fully implemented. Key findings from the baseline provider survey are as follows.

- There is high awareness of the BSP across WDHB GPs, practice nurses, endoscopy and radiology staff. However, many providers feel that they are not well informed about the BSP.

- Most GPs and practice nurses are aware of the different roles of general practice in the BSP. However, among GPs, there is less certainty that the following are general practice roles: encouraging eligible patients to remain within the public system for bowel screening, liaising with the BSP Coordination Centre about being unable to contact patients with a positive immunochemical faecal occult blood test (iFOBT) and managing or recalling patients if they are found to be at increased risk of bowel cancer through the BSP. Of particular note is that not all GPs are aware of their key role of notifying patients who receive a positive iFOBT.

- Most endoscopy staff are aware of the different roles of the Waitakere Hospital Endoscopy Unit in the BSP. Key areas for enhanced understanding are notifying patients who receive a positive iFOBT if they have not been notified by general
practice, and referring patients for a CT colonography if a colonoscopy is not suitable for them.

- Most GPs, practice nurses and endoscopy staff feel confident explaining the BSP to patients. However, many radiology staff do not. Similarly, most GPs, practice nurses and endoscopy staff believe that they have an important role in the BSP. Radiology staff are less certain of the importance of their role.

- Awareness of the role of the New Zealand Familial Gastrointestinal Cancer Registry is not high across all health providers.

- Almost all health providers surveyed view New Zealand’s bowel cancer death rate as a significant health concern.

- There is near universal support among health providers for the BSP in WDHB and for a national bowel screening programme. Support for use of the iFOBT in the BSP is less consistent, with some GPs and many radiology staff being unsure about the iFOBT.

- All provider groups expect that the BSP will increase their workload. Views on service capacity for the BSP are mixed, with provider groups tending to rate the capacity of their own service more highly than the rating given by other groups. GPs in particular noted concerns about the capacity of colonoscopy, CT colonography and secondary care services in relation to the BSP.

- Overall, GPs, practice nurses and endoscopy staff rate their expected performance delivering BSP activities highly. For GPs, the areas where expected performance is not rated as highly are encouraging eligible patients to remain within the public system for bowel screening and liaising with the BSP Coordination Centre about being unable to contact patients with a positive iFOBT.

- Currently, there is uncertainty about the effectiveness of interfaces between the different service providers in the BSP. This is not surprising, given the BSP is at the very early stages of implementation.

1.4 Implications for the Bowel Screening Pilot

Overall, the provider survey indicates high baseline levels of awareness, knowledge and support for the BSP among general practice, endoscopy and radiology staff. The findings also highlight a number of areas for potential improvement, the most important of these relate to knowledge of BSP roles, provider interfaces and capacity.

Enhancing knowledge of BSP roles across the different providers: Consideration is needed as to whether existing communication strategies with providers will address identified knowledge gaps or if these need revision. The Ministry may also wish to address knowledge gaps about the role of the New Zealand Familial Gastrointestinal Cancer Registry, which has an important interface with the BSP.

Increasing understanding of provider interfaces on the BSP pathways to ensure eligible patients have a seamless, safe and acceptable experience of the BSP: While it is acknowledged that this survey was conducted in the very early stages of the BSP implementation, the challenge of ensuring a seamless pathway for patients has been indicated. Quality assurance mechanisms are in place to minimise the risk to patients of not progressing appropriately along the BSP pathways. However, consideration is needed as to whether further strategies are required at this stage to address this potential issue.

Capacity to service the BSP is a key concern for some providers, particularly GPs: Widespread and ongoing perceptions of inadequate service capacity or increased workload...
may damage the support currently demonstrated by providers and potentially undermine GPs’ willingness to encourage patients to remain in the BSP. Reflecting that Waitakere Hospital Endoscopy Unit has been working to clear the waiting list for colonoscopies, the MoH and WDHB need to consider whether this information will go some way to address capacity concerns in the immediate term.

1.5 Implications for the Bowel Screening Pilot Evaluation

The baseline survey, while indicative, provides an important baseline measure of health providers’ knowledge, attitudes and perceptions relating to the BSP. The 2013 provider survey will assess changes in provider knowledge of BSP roles and responsibilities, including interfaces with other providers, as well as provider confidence in BSP service capacity.

Qualitative research in 2012 will provide an important opportunity to explore provider interfaces, understanding and implementation of roles and responsibilities, drivers of attitudes and behaviours, and the initial impact of the BSP on provider services.
2. Introduction

2.1 Background

The Ministry of Health (MoH) has funded Waitemata District Health Board (WDHB) to run a Bowel Screening Pilot (BSP) over four years from 2012–16. The BSP began with a ‘soft launch’ in late 2011, with full operation of the pilot starting in January 2012. Litmus and Sapere Research Group have been funded by the MoH to undertake an evaluation of the BSP, including a cost-effectiveness analysis. The evaluation will inform a decision about whether or not to roll out a national bowel screening programme.

The overall goal and underlying objectives of the BSP and its evaluation are the same and have been defined by the MoH. The overall goal of both is to determine:

Whether organised bowel screening could be introduced in New Zealand in a way that is effective, safe and acceptable for participants; equitable and economically efficient.

The goal comprises four key aims.

1. Effectiveness: Is a national bowel screening programme likely to achieve the mortality reduction from bowel cancer for all population groups seen in international randomised controlled trials?

2. Safety and acceptability: Can a national bowel screening programme be delivered in a manner that is safe and acceptable?

3. Equity: Can a national bowel screening programme be delivered in a manner that eliminates (or does not increase) current inequalities between population groups?

4. Economic efficiency: Can a national bowel screening programme be delivered in an economically efficient manner?

A number of activities are planned for the evaluation of the BSP. Included in these is an online health provider survey. The provider survey informs a number of the evaluation questions. This report presents findings from the baseline provider survey undertaken with general practitioners (GPs), practice nurses, other general practice staff, endoscopy and radiology staff in WDHB. Follow-up provider surveys will be undertaken in 2013 and 2015.

The New Zealand Health and Disability Multi-region Ethics Committee granted ethical approval for the suite of BSP evaluation activities (reference MEC/11/EXP/119).

---


2 Refer to the Evaluation Plan for the Bowel Screening Pilot 2011–2016 (Litmus Limited, 2011) for details of evaluation activities.

3 Refer Section 2.4 of the Evaluation Plan for the Bowel Screening Pilot 2011–2016 (Litmus Limited, 2011) for the full list of evaluation questions.
2.2 Survey purpose

General practice, endoscopy and radiology providers play a key role in delivery of the BSP. The purpose of this survey is to assess providers’ awareness and knowledge of the BSP, attitudes towards the BSP and its delivery mechanisms, and the perceived impact of the BSP on normal services. The survey will also measure attitudes towards a possible national roll-out of a bowel screening programme. Follow-up surveys will enable changes in providers’ awareness, knowledge, attitudes and perceptions to be tracked over time, following commencement of the BSP.

Information about the role of general practice, endoscopy and radiology in the BSP, and the impact of the BSP on normal services, will enable identification of wider workforce implications for national roll-out of a bowel screening programme.

Given that the survey measures and tracks provider attitudes towards the BSP and its impact on services, it was preferable for the first survey to be conducted before full implementation of the BSP, so baseline data could be collected.
3. Survey methodology

This section outlines the process used to design and test the questionnaire, the survey design and sampling approach, survey response rates and representativeness, sample descriptions, analysis notes and methodological limitations.

3.1 Questionnaire design and pretesting

The content of the provider questionnaire was initially developed following review of overseas literature reporting on surveys for bowel screening programmes and assessments of bowel cancer screening. Draft questionnaire content was reviewed by the evaluation team’s Governance Group, an independent expert reviewer and the MoH’s Evaluation Advisory Group. Changes were made accordingly.

Following this, pretesting for interpretation, understanding and to gauge survey length was undertaken with members of the BSP Primary Care Liaison Group and a key contact at the Waitakere Hospital Endoscopy Unit (WHEU). Modifications were subsequently made to the questionnaire to ensure:

- the survey was the required length
- questions were easy to understand and respond to
- terms and language used were appropriate.

The revised questionnaire was sent to members of the evaluation team’s Governance Group and the MoH’s Evaluation Advisory Group for final comment. Minor adjustments to the questionnaire were made reflecting feedback from these stakeholders.

Reflecting the different roles of BSP providers, the questionnaire was structured to enable different providers to answer different questions, relevant to their role. The survey used a majority of close-ended questions to enhance speed of response and overall response rates. Future qualitative research with providers (proposed in the BSP Evaluation Plan) will provide a depth of understanding about the survey responses received.

The survey was delivered by Reid Research Services Limited on behalf of Litmus over a nine-week period from 24 November 2011 to 26 January 2012. The survey took around 10 minutes to complete.

The final questionnaire is contained in Appendix 1.0.

3.2 Survey design and sampling approach

The final survey and sample design was determined following discussion with the MoH about the key provider groups for the BSP and the best way of collecting data from these groups. Three provider groups were identified:

1. GPs and practice nurses working in general practices located in the WDHB area
2. endoscopy staff at the WHEU

---


3. radiology staff at North Shore Hospital radiology unit and WHEU.

A number of options for accessing and surveying providers were explored, including the following.

- Random sampling of GPs and practice nurses using telephone interviews from the Blue Pages in the phone book was discounted due to the difficulties of accessing busy health professionals and the high cost.
- Accessing eligible GP and practice nurse contact details from Primary Health Organisations (PHOs) with practices located in the WDHB area. Early feedback indicated that PHOs would be unlikely to release health practitioner contact details to the evaluation team due to privacy concerns. However, PHOs indicated willingness to forward survey information and invitations to eligible GPs and practice nurses on behalf of the evaluation team.
- Accessing endoscopy and radiology staff from contact lists provided by WDHB. Early discussions with senior endoscopy and radiology staff indicated willingness to provide contact details of eligible staff.

An online survey was selected as the most cost-effective approach to accessing busy health professionals and enhancing participation. General practice staff were contacted by PHOs; endoscopy and radiology staff were contacted by the evaluation team.

Each provider group completed a separate survey, comprising questions relevant to their specific roles in the BSP and questions common to all three groups. Respondents stated their role at the outset of the questionnaire to trigger the correct stream of questions for their role. The sampling approach for each provider group is outlined below.

**General practice sampling**

The eligible population for the general practice survey was all GPs and practice nurses working in general practices located in the WDHB area. A response category was also provided for ‘other general practice staff’ who may have received and completed the survey.

In the absence of contact lists for eligible GPs and practice nurses, PHOs with general practices located in the WDHB area were asked to contact eligible GPs and practice nurses on behalf of the evaluation team. Involved PHOs were Procare, Waitemata PHO and National Hauora Coalition. PHOs undertook the following steps to inform GPs and practice nurses of the BSP survey and encourage their participation.

1. GPs and practice nurses were notified of the upcoming BSP survey via direct emails or general PHO bulletins.
2. Eligible GPs and practice nurses were individually emailed a link to the survey. Due to the distribution method, invitees were not assigned unique identifier numbers or survey passwords.
3. GPs and practice nurses were sent three reminders to complete the survey. Reminders were sent via direct emails to eligible GPs and practices nurses, PHO bulletins or emails to practice managers.

A sample of 88 GPs, 88 practice nurses and eight other general practice staff took part in the survey.
Endoscopy sampling

The eligible population for the endoscopy survey was all staff working in the WHEU who were expected to be involved in delivery of the BSP over the next four years. A senior Endoscopy Unit staff member provided a list of 27 eligible staff members and their email addresses. The list included clinical staff, sterile services staff and administration staff.

All eligible staff were emailed a link to the survey by the evaluation team. Invitees were not assigned unique identifier numbers or survey passwords. Three reminders were sent to eligible staff who did not appear to have completed the survey.

A sample of 21 endoscopy staff took part in the survey.

Radiology sampling

The eligible population for the radiology survey was all staff working in the Waitakere Hospital and North Shore Hospital radiology units who might be involved in delivery of the BSP over the next four years. A senior staff member representing WDHB Radiology Services provided a list of 49 eligible staff members and their email addresses. The list included clinical staff, technical staff and administration staff.

All eligible staff were emailed a link to the survey by the evaluation team. Invitees were not assigned unique identifier numbers or survey passwords. Three reminders were sent to eligible staff who did not appear to have completed the survey.

A sample of 30 radiology staff took part in the survey.

Encouraging participation

To encourage participation, everyone who completed the survey was eligible to be entered in a prize draw for a Christmas hamper valued at $100. There were two hampers to be won.

In a further effort to increase participation, the survey field period was extended for an additional month from the intended close date. An opportunity to win a $50 hamper was offered to those who completed the survey in the final month.

Following a randomised selection process, the hampers were won by two general practices and a radiology staff member.

3.3 Response rates and representativeness

Response rates and representativeness

Participation in the provider survey was voluntary. By choosing to take part, respondents gave consent for data to be used. Response rates for each provider group are shown in Table 1.
### Table 1: Achieved response rates

<table>
<thead>
<tr>
<th>Provider group</th>
<th>Respondents (n)</th>
<th>Eligible population (N)</th>
<th>Response rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General practitioners</td>
<td>88</td>
<td>328*</td>
<td>27%</td>
</tr>
<tr>
<td>Practice nurses</td>
<td>88</td>
<td>404*</td>
<td>22%</td>
</tr>
<tr>
<td>Other general practice staff*</td>
<td>8</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Endoscopy staff</td>
<td>21</td>
<td>27</td>
<td>78%</td>
</tr>
<tr>
<td>Radiology staff</td>
<td>30</td>
<td>49</td>
<td>61%</td>
</tr>
</tbody>
</table>

* Figure based on PHO estimates
* Small number of other general practice staff – combined with practice nurse sample for analysis

There are a number of factors that are likely to have contributed to the low response rates achieved for GPs and practice nurses.

- **Time of year** – Feedback from Reid Research Services Limited is that interviewing in the weeks leading up to Christmas can negatively impact on response rates. Although the survey field period was extended to late January to increase provider opportunity to respond, it is likely that the January response rate was also negatively affected by people being away for the holiday period. Note that the survey timeframe was the only period available between agreement of the Evaluation Plan and the full launch of the BSP (planned for early 2012).

- **Low BSP awareness and perceived relevance** – Feedback from PHO practice liaison staff indicated that some practice nurses, and even some GPs, may not have heard about the BSP at the time they were invited to complete the survey. This may have negatively impacted on response rates for general practice staff.

- **Time and computer access** – Feedback from PHO practice liaison staff indicated that access to a computer and patient-free time to complete the survey may present a barrier to survey completion for some GPs and practice nurses.

- **Multiple surveys in field** – Feedback from PHO practice liaison staff indicated that GPs and practice nurses received a number of survey requests in December. As a result, one PHO was reluctant to send out individual survey reminders to eligible GPs and practice nurses.

Response rates are one indicator of survey quality. Their importance derives from the possibility that non-respondents may be different on average from respondents, and in significant ways. If non-respondents and respondents are similar on average, even a low response rate need not be of concern. The difficulty for the general practice survey is that data has not been collected from non-respondents. Consequently, whether GPs and practice nurses who did not participate in the survey differ in significant ways from those who did is unknown.

Another option for gauging the degree to which respondents differ from non-respondents is to compare the GP and practice nurse respondent profile against existing population level information for WDHB GPs and practice nurses. This would enable assessment of the degree to which the survey sample profile matches that of the eligible population profile. This approach was not possible as there are no known existing sources of information on the profile of WDHB GPs and practice nurses against which to compare the achieved sample.

The implications of the low GP and practice nurse response rates are discussed in Section 3.6.

---

6 Reid Research Services Limited, personal communication, 21 February 2012.
Margins of error

All surveys aimed to collect data from everyone in the relevant eligible populations, that is, they were intended to be censuses, not surveys of a randomly chosen sample from the population. If non-response is assumed to be random, this would mean that completion of the survey was unrelated to respondent demographics and other survey variables, and the survey results would be representative of the relevant populations. However, the random nature of the non-response would introduce some random variation into the survey results. The potential size of this random variation can be quantified as the margin of error applying to each figure from the surveys, which depends on the sample size, the sampling fraction and the figure itself. Table 2 shows the margins of error that apply for each survey, for a range of percentages.

Table 2: Margins of error for percentages from each survey, assuming random non-response

<table>
<thead>
<tr>
<th>Provider group</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
</tr>
</thead>
<tbody>
<tr>
<td>General practitioners</td>
<td>7%</td>
<td>8%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Practice nurses</td>
<td>7%</td>
<td>8%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Endoscopy staff</td>
<td>8%</td>
<td>10%</td>
<td>10%</td>
<td>11%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Radiology staff</td>
<td>9%</td>
<td>10%</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
</tr>
</tbody>
</table>

3.4 Sample description

Table 3 shows the sample composition for each of the provider groups in this survey by key demographic variables, including gender and ethnicity.

Table 3: Key demographic variables, all provider groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>General practitioners (n=88)</th>
<th>Practice nurses/other staff (n=96)</th>
<th>Endoscopy staff (n=21)</th>
<th>Radiology staff (n=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>42</td>
<td>–</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Female</td>
<td>37</td>
<td>91</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>No response</td>
<td>9</td>
<td>5</td>
<td>1</td>
<td>–</td>
</tr>
<tr>
<td>Ethnicity(^7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Māori</td>
<td>3</td>
<td>2</td>
<td>–</td>
<td>1</td>
</tr>
<tr>
<td>Pacific</td>
<td>–</td>
<td>4</td>
<td>1</td>
<td>–</td>
</tr>
<tr>
<td>Asian</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other (including New Zealand European)</td>
<td>66</td>
<td>80</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>No response</td>
<td>12</td>
<td>7</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 4 shows additional general practice information for GPs and practice nurses and/or other general practice staff who participated in the survey. It includes the size of practice (using number of full-time equivalent, or FTE, GPs) and the estimated size of the enrolled practice population.

\(^7\) Prioritised ethnicity.
Table 4: General practice information, general practitioners, practice nurses and/or other staff

<table>
<thead>
<tr>
<th>General practice</th>
<th>General practitioners (n=88)</th>
<th>Practice nurses and/or other staff (n=96)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of practice (# FTE GPs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2</td>
<td>23</td>
<td>32</td>
</tr>
<tr>
<td>3–4</td>
<td>32</td>
<td>27</td>
</tr>
<tr>
<td>5–6</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>7+</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>No response</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Size of practice (enrolment)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–5,000</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>5,001–10,000</td>
<td>35</td>
<td>33</td>
</tr>
<tr>
<td>10,001+</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>No response</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

Note: FTE = full-time equivalent; GPs = general practitioners

3.5 Analysis

The following points explain the analytical approaches used in this report.

- Data were analysed by provider group. The small numbers overall and for particular provider groups have prevented detailed analysis due to statistical limitations in making comparisons with small numbers. Analysis by respondent ethnicity was not possible due to small numbers of Māori and Pacific respondents.
- The small number of ‘other general practice staff’ (n=8) have been grouped with practice nurses for analysis purposes (referred to hereafter as ‘practice nurses’). The decision to combine these two groups reflects: the sample of other general practice staff is too small to present separately; a comparison of practice nurse and other general practice staff responses showed no substantive differences in their results; and it would be unethical to exclude other practice staff responses.
- Radiology staff from the two WDHB hospitals, Waitakere and North Shore, have been grouped together for analysis purposes.
- Findings are presented for four provider sub-groups: GPs, practice nurses (including other general practice staff), endoscopy staff and radiology staff.
- The provider groups who answered each question are indicated in graph titles. The actual number of respondents who answered each question is indicated on the graphs.
- Not all respondents completed the full survey, so some sample bases reduced as the survey progressed. Analysis was limited to those who gave an answer to each question.
- Percentage values quoted in the text and graphs have been rounded to whole numbers.
- Five general practice respondents indicated that their practice was located outside of the WDHB area. Sixteen general practice respondents did not state their DHB location. An analysis was undertaken to assess whether or not there was any significant difference in the findings between all GPs and practice nurse and/or other staff who completed the survey and those known to be located in WDHB. No significant differences were noted so, given the small achieved sample, the findings presented in...
this report are based on all GPs and practice nurses and/or other staff who completed the survey.

- Thematic analysis of the open-ended questions in the survey was undertaken. Information from these comments is used to supplement and offer greater depth of understanding and interpretation of the survey data. Key themes and example quotes have been included in relevant sections.

- Responses to Questions 20 to 23 of the questionnaire are presented in a table in Appendix 2.0. Responses to these questions are counter-intuitive, indicating respondents had understood the question differently from its design intent. Inclusion and design of this question will be carefully reviewed before the follow-up surveys.

3.6 Methodological limitations

In the absence of any other information on GPs, the provider surveys provide important and useful information to the BSP Evaluation. They offer a baseline indication of providers’ knowledge, attitudes and expectations, before the launch of the BSP in early 2012. The planned follow-up surveys will enable tracking of any shifts in these attributes over time.

The key methodological limitations of the provider surveys are the low GP and practice nurse response rates and an inability to establish whether GP and practice nurse samples are representative of the wider population of WDHB GPs and practice nurses. Consequently, GP and practice nurse findings are indicative and not definitive. Future qualitative research with general practice staff will provide an opportunity to explore and further understand survey findings.

In contrast, given the high response rates for the endoscopy and radiology surveys, there is greater confidence that the findings are representative of WDHB endoscopy and radiology staff.
4. Awareness and knowledge

This section presents findings relating to providers’ awareness and knowledge of the BSP and their role in the BSP. Provider awareness of the New Zealand Familial Gastrointestinal Cancer Registry is also reported in this section.

4.1 Awareness of the Bowel Screening Pilot

There was high awareness of the BSP in WDHB across all providers surveyed. All endoscopy staff (100%), almost all GPs (94%) and most practice nurses (85%) and radiology staff (87%) reported that they were aware of the BSP (Figure 1).

Figure 1: Provider awareness of the Bowel Screening Pilot, all provider groups

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
4.2 Sources of information about the Bowel Screening Pilot

Providers were shown a list of possible sources of information and asked to select all of those from which they had seen or heard information about the BSP. General practice staff had seen or heard information about the BSP from a range of sources. The main sources of information cited by GPs were PHOs (57%), WDHB (50%), colleagues (34%) and the media (32%) (Figure 2). Practice nurses reported having seen or heard information about the BSP from similar sources, specifically PHOs (58%), WDHB (44%), the media (25%) and colleagues (22%).

Figure 2: Sources of information about the Bowel Screening Pilot, general practitioners and practice nurses

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: PHO = Primary Health Organisation; DHB = district health board; BSP = Bowel Screening Pilot
Endoscopy staff reported that they had seen or heard information about the BSP from WDHB (95%), colleagues (71%), conferences, meetings, presentations (52%) and the media (48%) (Figure 3). The main sources of information about the BSP for radiology staff were WDHB (77%), colleagues (53%) and the media (30%).

Figure 3: Sources of information about the Bowel Screening Pilot, endoscopy and radiology staff

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: DHB = district health board; BSP = Bowel Screening Pilot
4.3 Knowledge about the Bowel Screening Pilot

When asked to indicate the extent to which they agreed that they were not well informed about the BSP, responses were mixed. Around two-fifths of GPs and practice nurses agreed they were ‘not well informed about the BSP’ (45% and 38%, respectively), while similar proportions of both groups disagreed that they were ‘not well informed about the BSP’ (41% and 44%, respectively). Most endoscopy staff disagreed that they were ‘not well informed about the BSP’ (70%), whereas most radiology staff agreed (60%).

Figure 4: Agreement with statement ‘I am not well informed about the BSP’, all provider groups

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
4.4 Awareness of role in the Bowel Screening Pilot

General practice staff

GPs and practice nurses were asked about several BSP-related activities and the extent to which they agreed that they were the role of general practice in the BSP. The first set of activities related to patient participation and eligibility for the BSP.

Almost all GPs and practice nurses agreed that promoting participation in the BSP to eligible patients is the role of general practice (90% of GPs and 96% of practice nurses) (Figure 5).

Just over half of all GPs agreed that encouraging eligible patients to remain within the public system for bowel screening is part of a general practice’s role in the BSP (54%); 37% of GPs neither agreed nor disagreed. A higher proportion of practice nurses agreed that this is the role of general practice (76%).

Three-quarters of GPs agreed that identifying patients who are ineligible to participate in the BSP is the role of general practice (76%). A similar proportion of practice nurses agreed with this role (79%).

Among GPs, 83% agreed that referring patients with a family history of bowel cancer to the New Zealand Familial Gastrointestinal Cancer Registry is the role of general practice in the BSP. Agreement among practice nurses was also high (92%).

Figure 5: Perceived patient eligibility and participation activities for general practice role in the Bowel Screening Pilot, general practitioners, practice nurses and/or other staff

<table>
<thead>
<tr>
<th>Activity</th>
<th>GPs (n=87)</th>
<th>Practice nurse/other (n=95)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promoting participation in BSP to eligible patients</td>
<td>36</td>
<td>41</td>
</tr>
<tr>
<td>Encouraging eligible patients to remain within the public system for bowel screening</td>
<td>29</td>
<td>42</td>
</tr>
<tr>
<td>Identifying patients who are ineligible to participate in the BSP</td>
<td>39</td>
<td>37</td>
</tr>
<tr>
<td>Referring patients with significant family history of bowel cancer to the NZ Familial GI Cancer Registry</td>
<td>40</td>
<td>43</td>
</tr>
</tbody>
</table>

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: BSP = Bowel Screening Pilot
The second set of activities that GPs and practice nurses were asked about related to result notification and referral of patients in the BSP.

Four out of five GPs agreed that notifying patients who receive a positive immunochemical faecal occult blood test (iFOBT) of their results is the role of general practice in the BSP (80%), and a similar proportion of practice nurses agreed (84%) (Figure 6).

Almost all GPs agreed that discussing the implications of a positive iFOBT with patients before referring them to the WHEU is the role of general practice (96%). Practice nurses also expressed high agreement with this role (86%).

Providing the WHEU with clinical information for pre-assessment of positive iFOBT patients was seen as the role of general practice by most GPs (92%). Most practice nurses also agreed with this role (90%).

Figure 6: Perceived notification and referral activities for general practice role in the Bowel Screening Pilot, general practitioners, practice nurses and/or other staff

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: iFOBT = immunochemical faecal occult blood test; WHEU = Waitakere Hospital Endoscopy Unit
The third set of activities that GPs and practice nurses were asked about related to **patient follow up and liaison** with the BSP Coordination Centre.

Almost three-quarters of GPs thought that liaising with the BSP Coordination Centre about being unable to contact positive iFOBT patients was the role of general practice in the BSP (72%) (Figure 7). In contrast, almost all practice nurses agreed with this statement (90%).

Managing or recalling patients if they were found to be at increased risk of bowel cancer through the BSP was seen as the role of general practice by 73% of GPs and 87% of practice nurses.

**Figure 7: Perceived patient follow-up and liaison activities for general practice role in the Bowel Screening Pilot, general practitioners, practice nurses and/or other staff**

Base: All respondents who answered the survey question  
Source: BSP Evaluation online provider survey, 2011  
Note: BSP = Bowel Screening Pilot; iFOBT = immunochemical faecal occult blood test
Endoscopy staff

Endoscopy staff were asked to indicate the extent to which they thought certain activities were the role of the WHEU in the BSP. The first set of activities related to results notification, pre-assessment and referral of patients in the BSP.

Almost two-thirds of endoscopy staff agreed that notifying patients who receive positive iFOBT (if they do not have a GP or have not been notified by general practice) is the role of the WHEU in the BSP (62%) (Figure 8). One in five disagreed (19%).

A higher proportion of endoscopy staff agreed that liaising with general practice about patients that the unit is unable to contact to notify about positive iFOBTs is the role of the WHEU in the BSP (71%).

Undertaking high-quality pre-assessments of BSP patients was seen as the role of the WHEU by three-quarters of endoscopy staff surveyed (76%).

Nearly two-thirds of endoscopy staff agreed that referring patients for CT colonography, if a colonoscopy is not suitable for them, is the role of their unit in the BSP (62%).

Figure 8: Perceived results notification, pre-assessment and referral activities for Waitakere Hospital Endoscopy Unit role in the Bowel Screening Pilot, endoscopy staff

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: iFOBT = immunochemical faecal occult blood test; GP = general practitioner; WHEU = Waitakere Hospital Endoscopy Unit; BSP = Bowel Screening Pilot
The second set of activities endoscopy staff were asked about related to colonoscopy services, and providing results to the patient, their GP and the BSP Coordination Centre.

All endoscopy staff surveyed agreed that providing high-quality colonoscopy to BSP patients is the role of the WHEU in the BSP (Figure 9).

Most endoscopy staff agreed that providing results of colonoscopies to BSP patients is the role of the WHEU (81%). Almost all agreed that providing colonoscopy results to patients’ GPs (95%) and the BSP Coordination Centre (91%) is the role of the WHEU in the BSP.

Figure 9: Perceived service and result notification activities for Waitakere Hospital Endoscopy Unit role in the Bowel Screening Pilot, endoscopy staff

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: BSP = Bowel Screening Pilot; GPs = general practitioners
4.5 Awareness of role of the New Zealand Familial Gastrointestinal Cancer Registry

Providers were asked to indicate the extent to which they agreed that they were aware of the role of the New Zealand Familial Gastrointestinal Cancer Registry (the Registry). Awareness of the role of the Registry was not high among providers. Less than two-thirds of GPs surveyed agreed that they were aware of the role of the Registry (59%) (Figure 10). Just over half of practice nurses were aware of the Registry’s role (52%).

Six out of 10 endoscopy staff were aware of the role of the Registry (60%). In contrast, only a quarter of radiology staff were aware of the Registry’s role (26%).

Figure 10: Awareness of the role of the New Zealand Familial Gastrointestinal Cancer Registry, all providers

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
**Summary:** Awareness of the BSP is high across GPs, practice nurses, endoscopy and radiology staff. However, between 30% and 60% of each of these groups agree that they are not well informed about the BSP.

In the main, GPs and practice nurses are aware of the role of general practice in the BSP. However, among GPs, there is less certainty that the following are general practice roles: encouraging eligible patients to remain within the public system for bowel screening, liaising with the BSP Coordination Centre about being unable to contact patients with a positive iFOBT, and managing or recalling patients if found to be at increased risk of bowel cancer through the BSP. Of particular note is that not all GPs are aware of their key role of notifying patients who receive a positive iFOBT.

Endoscopy staff are also aware of their role in the BSP. However, key areas for enhanced understanding are notifying patients who receive a positive iFOBT if they have not been notified by general practice and referring patients for a CT colonography if a colonoscopy is not suitable for them.

Around four in 10 GPs, practice nurses and endoscopy staff are not aware of the New Zealand Familial Gastrointestinal Cancer Registry. Awareness is even lower amongst radiology staff.
5. Attitudes

All providers who completed the survey were asked a number of questions to gauge their attitudes and beliefs about bowel cancer, national screening and the BSP.

5.1 Concern about bowel cancer rate

Across all provider groups surveyed, almost all respondents agreed that the bowel cancer death rate in New Zealand is a significant health concern (Figure 11):

- 99% of GPs agreed
- 96% of practice nurses agreed
- 95% of endoscopy staff agreed
- 97% of radiology staff agreed that the bowel cancer death rate in New Zealand is a significant health concern.

Figure 11: Bowel cancer death rate in New Zealand is a significant concern, all providers

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
5.2 Perceived importance of role in the Bowel Screening Pilot

All providers were asked to indicate the extent to which they agreed they have an important role in the BSP (Figure 12):

- 76% of GPs agreed
- 68% of practice nurses agreed
- 70% of endoscopy staff agreed
- 43% of radiology staff agreed that they have an important role in the BSP.

Across all provider groups, approximately one in five respondents neither agreed nor disagreed that they have an important role in the BSP (20% of GPs, practice nurses and endoscopy staff, and 23% of radiology staff). More than one-quarter of radiology staff disagreed that they have an important role in the BSP (27%).

Figure 12: Perceived importance of role in the Bowel Screening Pilot, all providers

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
5.3 Support for immunochemical faecal occult blood test

When asked to indicate the extent to which they supported the use of the iFOBT as the screening test for the BSP, results were mixed (Figure 13):

- 71% of GPs agreed that they supported the use of iFOBT as the screening test for the BSP
- 81% of practice nurses agreed
- 80% of endoscopy staff agreed
- 53% of radiology staff agreed
- One-fifth of GPs (21%) neither agreed nor disagreed that they supported the use of the iFOBT as the screening test for the BSP. More than one-third of radiology staff did not know the extent to which they supported the iFOBT as the screening test for the BSP (37%).

Figure 13: Support for use of immunochemical faecal occult blood test as screening test for the Bowel Screening Pilot, all providers

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
5.4 Support for the Bowel Screening Pilot

All providers were asked to indicate the extent to which they supported the BSP in WDHB. Support for the pilot was high among all providers surveyed (Figure 14):

- 88% of GPs
- 99% of practice nurses
- 100% of endoscopy staff
- 96% of radiology staff support the BSP.

Figure 14: Support for the Bowel Screening Pilot in Waitemata District Health Board, all providers

Those providers who did not support, or strongly opposed, the BSP in WDHB were given the opportunity to explain their answer. The only providers who did not support the BSP were from the GP group. Three GPs gave the following reasons for not supporting the BSP (or opposing it outright):

- poor coordination
  “Lack of coordination with primary care.”

- insufficient capacity
  “Already long waiting lists for colonoscopy for symptomatic patients and [I] do not believe that WDHB has the resources to cope with increased demand for services.”

- questioning the iFOBT.
5.5 Support for a national bowel screening programme

At the end of the survey, all providers were asked about the extent to which they supported the introduction of a national bowel screening programme. Most providers were supportive (Figure 15):

- 88% of GPs
- 99% of practice nurses
- 100% of endoscopy staff
- 96% of radiology staff supported the introduction of a national bowel screening programme.

Figure 15: Support for introduction of a national bowel screening programme, all providers

Summary: New Zealand's bowel cancer death rate is recognised by all provider groups as a significant health concern. While support for use of the iFOBT is not universal across provider groups, there is near universal support for the BSP in WDHB and for a national bowel screening programme. Around seven in 10 GPs, practice nurses and endoscopy staff believe that they have an important role in the BSP. In contrast, less than half of radiology staff have this view.
6. Implementation

This section presents results relating to providers’ confidence in explaining the BSP to patients, their expectations of how their practice or unit will perform with regard to BSP activities, their expectations of how the BSP will impact on their workload, their perceptions of capacity to service the BSP and their perceptions of interfaces between different BSP providers.

6.1 Confidence in explaining the Bowel Screening Pilot to patients

When asked to indicate the extent to which they are confident in explaining the BSP to patients, two-thirds to three-quarters of general practice and endoscopy staff agreed that they are confident doing so (Figure 16):

- 75% of GPs
- 62% of practice nurses
- 70% of endoscopy staff agree that they are confident explaining the BSP to patients.

In contrast, only one-third (34%) of radiology staff agreed that they are confident explaining the BSP to patients and 40% disagreed. Nearly one-quarter (23%) of radiology staff neither agreed nor disagreed that they are confident explaining the BSP to patients.

Figure 16: Confidence in explaining the Bowel Screening Pilot to patients, all providers

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
6.2  Expected performance in the Bowel Screening Pilot

An important measure for this baseline survey is how providers expect their practice or unit will perform in key BSP roles over the next 12 months.

**General practice staff**

General practice staff were asked to rate expected performance of patient participation and eligibility activities for the BSP (Figure 17).

Almost all GPs and practice nurses expected their practice would be good or very good at promoting participation in the BSP to eligible patients (85% and 90%, respectively).

Almost two-thirds of GPs expected that their practice would be good or very good at encouraging eligible patients to remain within the public system for bowel screening (64%). In contrast, 80% of practice nurses expected their practice’s performance to be good or very good in this area.

For identifying patients who are ineligible to participate in the BSP (due to, for example, a personal or family history of bowel cancer or polyps, or significant co-morbidities), three-quarters of GPs (75%) and four out of five practice nurses (81%) expected their practice’s performance to be good or very good.

Almost three-quarters of GPs expected that their practice’s performance in referring patients with family history of bowel cancer to the New Zealand Familial Gastrointestinal Cancer Registry would be good or very good (74%). Almost all practice nurses expected their practice would be good or very good at referring patients to the Registry (86%).

**Figure 17: Expected performance of participation and eligibility activities over next 12 months of Bowel Screening Pilot, general practitioners, practice nurses and/or other staff**

<table>
<thead>
<tr>
<th>Activity</th>
<th>GPs (n=66)</th>
<th>Practice nurse/other (n=94)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promoting participation in BSP to eligible patients</td>
<td>11%</td>
<td>43%</td>
</tr>
<tr>
<td>Encouraging eligible patients to remain within the public system for bowel screening</td>
<td>27%</td>
<td>43%</td>
</tr>
<tr>
<td>Identifying patients who are ineligible to participate in the BSP</td>
<td>17%</td>
<td>55%</td>
</tr>
<tr>
<td>Referring patients with significant family history of bowel cancer to the NZ Familial GI Cancer Registry</td>
<td>19%</td>
<td>48%</td>
</tr>
</tbody>
</table>
The second set of activities that general practice staff were asked about related to expected performance in the areas of result notification and referral of patients.

Almost all GPs and practice nurses surveyed expected that their practice’s performance in notifying patients with positive iFOBTs of their result would be good or very good (90% and 91%, respectively) (Figure 18). Over half of both of these groups expected that their performance would be very good (56% and 59%, respectively).

Similarly, almost all general practice staff expected that their practice’s performance in discussing implications of a positive iFOBT with patients before referral to the WHEU would be good or very good (GPs 93%, practice nurses 90%).

Providing the WHEU with clinical information for pre-assessment of patients with a positive iFOBT was expected to be performed well at their general practice by most GPs (81% good or very good) and practice nurses (90%).

Figure 18: Expected performance of notification and referral activities over next 12 months of Bowel Screening Pilot, general practitioners, practice nurses and/or other staff

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: iFOBT = immunochemical faecal occult blood test; GPs = general practitioners; WHEU = Waitakere Hospital Endoscopy Unit
The third set of activities that GPs and practice nurse staff were asked about related to patient follow up and liaison with the BSP Coordination Centre.

Almost three-quarters of GPs expected that their practice would be good or very good at liaising with the BSP Coordination Centre when unable to contact patients with positive iFOBT results (73%). A higher proportion of practice nurses (90%) expected that their practice would be good or very good at this role (Figure 19).

When asked about managing or recalling patients who are found to be at increased risk of bowel cancer through the BSP, GPs thought their practice’s performance would be good or very good (80%), and practice nurses thought the same (84%).

Figure 19: Expected performance of patient follow up and liaison activities over next 12 months of Bowel Screening Pilot, general practitioners, practice nurses and/or other staff

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: BSP = Bowel Screening Pilot; iFOBT = immunochemical faecal occult blood test; GPs = general practitioners
**Endoscopy staff**

Endoscopy staff were asked to rate how they expected the WHEU to perform over the next 12 months in relation to results notification, pre-assessment and referral of patients in the BSP. Nine out of 10 endoscopy staff expected that the WHEU would be good or very good at the following BSP activities (Figure 20):

- notifying patients who receive positive iFOBT (if they do not have a GP or have not been notified by general practice) (90%)
- proactively liaising with general practice about patients who the WHEU is unable to contact to notify about positive iFOBTs (90%)
- undertaking high-quality pre-assessments of BSP patients (90%)
- referring patients for CT colonography if a colonoscopy is not suitable for them (90%).

**Figure 20: Expected performance of results notification, pre-assessment and referral activities over next 12 months of Bowel Screening Pilot, endoscopy staff**

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: iFOBT = immunochemical faecal occult blood test; GPs = general practitioners; BSP = Bowel Screening Pilot
The second set of activities related to WHEU performance of colonoscopy services, and providing results to the patient, their GP and the BSP Coordination Centre, over the next 12 months.

Almost all endoscopy staff expected that the WHEU’s performance in providing high-quality colonoscopy services, and results of colonoscopies to BSP patients, GPs and the BSP Coordination Centre, would be good or very good (90–95%) (Figure 21).

Figure 21: Expected performance of service and result notification activities over next 12 months of Bowel Screening Pilot, endoscopy staff

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: BSP = Bowel Screening Pilot; GPs = general practitioners
6.3 Expected impact of Bowel Screening Pilot on workload

All providers were asked how they expected the BSP would impact on their practice or unit’s workload. Radiology staff were asked about the expected impact on the radiology workload at both North Shore Hospital and Waitakere Hospital radiology units.

All GPs expected that the BSP would increase the workload in their general practice; 18% expected that it would increase the workload significantly (Figure 22). Most practice nurses (93%) also expected an increase in workload from the BSP (20% expected the workload to increase significantly).

Almost all endoscopy and radiology staff expected that the BSP would increase the workload at their units.

- Ninety-five percent of endoscopy staff expected the BSP would increase the WHEU workload (60% significantly).
- Ninety-six percent of radiology staff expected the BSP would increase the workload at the North Shore Hospital radiology unit.
- Ninety percent of radiology staff expected the BSP would increase the workload at the Waitakere Hospital radiology unit.

Figure 22: Expected impact of the Bowel Screening Pilot on workload, all providers

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners; BSP = Bowel Screening Pilot; WHEU = Waitakere Hospital Endoscopy Unit
6.4 Perceived capacity of services as part of the Bowel Screening Pilot

All providers were asked about the level of current capacity across a range of services for the BSP. Services included laboratory, colonoscopy, secondary cancer care and patient management.

Laboratory services

Providers had mixed opinions on current capacity to provide laboratory services to the BSP. Between one-third and four-fifths of respondents reported that they ‘don’t know’ about the current capacity of laboratory services for the BSP (32% of GPs, 48% of practice nurses, 50% of endoscopy staff and 83% of radiology staff). Approximately one-half of GPs (54%) and endoscopy staff (40%) indicated that current capacity of laboratory services was ‘about right’ or ‘more than enough’. This figure was slightly lower for practice nurses (39%).

Figure 23: Perceived capacity of laboratory services for Bowel Screening Pilot, all providers

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
Colonoscopy services

Provider perceptions of the current capacity of WHEU colonoscopy services were also mixed (Figure 24).

- Seventy-three percent of GPs indicated that there is currently ‘not enough’ colonoscopy services, via the WHEU, for the BSP.
- Forty-three percent of practice nurses indicated that there is ‘not enough’ capacity for colonoscopy services, however, 32% did not know.
- Seventy-five percent of endoscopy staff thought that capacity for colonoscopy services for the BSP was ‘about right’ or ‘more than enough’.
- Sixty percent of radiology staff did not know what the current capacity was for colonoscopy services.

Figure 24: Perceived capacity of colonoscopy services at Waitakere Hospital Endoscopy Unit for Bowel Screening Pilot, all providers

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
CT colonography services

As for laboratory and colonoscopy services, provider perceptions regarding the current capacity of CT colonography services for the BSP were mixed (Figure 25).

- Sixty-seven percent of GPs indicated that there is currently 'not enough' CT colonography capacity for the BSP, while 29% did not know.
- Thirty-three percent of practice nurses indicated that there is 'not enough' CT colonography capacity, while 48% did not know.
- Fifty-five percent of endoscopy staff did not know about capacity of CT colonography services, while 30% thought capacity was ‘about right’ or ‘more than enough’.
- Fifty-three percent of radiology staff indicated that there is currently ‘not enough’ capacity of CT colonography services, while 40% thought capacity was ‘about right’ or ‘more than enough’.

Figure 25: Perceived capacity of CT colonography services for Bowel Screening Pilot, all providers

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
Secondary care services for bowel cancer

There was a strong perception among general practice staff and radiology staff that there is not enough secondary care services capacity to service the BSP (Figure 26). High proportions of respondents also said they did not know about current capacity of secondary care services for bowel cancer.

- Sixty-six percent of GPs indicated that there is ‘not enough’ current capacity of secondary care services.
- Forty-one percent of practice nurses indicated that there is ‘not enough’ current capacity, while 40% did not know.
- Forty percent of radiology staff said that there is ‘not enough’ current capacity, while 50% did not know.

In contrast, 40% of endoscopy staff indicated that the capacity of secondary care services is ‘about right’. However, 25% said there is ‘not enough’ capacity and 35% did not know.

Figure 26: Perceived capacity of secondary care services for bowel cancer, all providers

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
**General practice notification and referral services**

When providers were asked about current capacity of general practice to provide notification of positive iFOBTs and referral to WHEU services, most general practice respondents thought capacity was ‘about right’ or ‘more than enough’ (Figure 27). More than half of endoscopy and radiology staff did not know.

- Sixty-four percent of GPs indicated that current capacity is ‘about right’ or ‘more than enough’, and 24% said it is ‘not enough’.
- Fifty-nine percent of practice nurses said capacity is ‘about right’ or ‘more than enough’, while 24% did not know.
- Forty-five percent of endoscopy staff said that capacity is ‘about right’ or ‘more than enough’, but 50% did not know.
- Seventy-three percent of radiology staff did not know about the current level of capacity to provide general practice notification and referral services for the BSP.

**Figure 27: Perceived capacity of general practice notification of immunochemical faecal occult blood test results and referral to Waitakere Hospital Endoscopy Unit, all providers**

Base: All respondents who answered the survey question  
Source: BSP Evaluation online provider survey, 2011  
Note: GPs = general practitioners
Patient management and recall services

When asked about capacity for managing and recalling patients found to be at increased risk of bowel cancer, general practice and endoscopy staff tended to think capacity is ‘about right’ or ‘more than enough’, while radiology staff did not know (Figure 28).

- Sixty-two percent of GPs think capacity is ‘about right’ or ‘more than enough’, while 28% think there is ‘not enough’ capacity.
- Fifty-nine percent of practice nurses think capacity is ‘about right’ or ‘more than enough’, while 18% think there is ‘not enough’ capacity.
- Fifty-five percent of endoscopy staff think capacity is ‘about right’ or ‘more than enough’, 20% think there is ‘not enough’ and 25% don’t know.
- Seventy percent of radiology staff ‘don’t know’ about capacity for managing and recalling patients found to be at increased risk of bowel cancer.

Figure 28: Perceived capacity of management and recall for patients with increased risk of bowel cancer, all providers

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
Bowel Screening Pilot Coordination Centre services

Not surprisingly, given the survey was conducted before the full implementation of the BSP, high proportions of providers surveyed were uncertain about the current capacity of the BSP Coordination Centre to coordinate the BSP (Figure 29).

- Fifty-four percent of GPs ‘don’t know’ whether there is enough capacity, while 38% think capacity is ‘about right’ or ‘more than enough’.
- Fifty percent of practice nurses ‘don’t know’ whether there is enough capacity, while 43% think capacity is ‘about right’ or ‘more than enough’.
- Forty percent of endoscopy staff ‘don’t know’ whether there is enough capacity, but 60% think capacity is ‘about right’ or ‘more than enough’.
- Seventy-three percent of radiology staff say they ‘don’t know’ about the current level of capacity of the BSP Coordination Centre.

Figure 29: Perceived capacity of Bowel Screening Pilot Coordination Centre, all providers

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners
6.5 Perceived effectiveness of service interface

Providers were asked about the interface between their practice or unit and other services, and the extent to which they agreed that roles and responsibilities, communication processes and working relationships were clear and effective for BSP delivery.

Note: The findings below need to be considered in the context of the survey being undertaken before the BSP was fully implemented.

General practice–Waitakere Hospital Endoscopy Unit interface

GPs, practice nurses and endoscopy staff were asked about aspects of the interface between general practice and the WHEU (Figures 30 and 31).

When asked about the extent to which they agreed that there are clear roles and responsibilities between general practice and the WHEU for delivering the BSP:

- Approximately one-quarter of GPs agreed that there are (26%), the same proportion did not know (26%)
- 52% of practice nurses agreed, and 28% did not know
- 55% of endoscopy staff agreed, and 30% did not know.

When asked about the extent to which they agreed that there are adequate communication processes between general practice and the WHEU for delivering the BSP:

- 23% of GPs agreed that there are, and 24% did not know
- 45% of practice nurses agreed, and 29% did not know
- 35% of endoscopy staff agreed, and 45% did not know.

When asked about the extent to which they agreed that working relationships between general practice and the WHEU are effective in achieving a seamless process for patients along BSP pathways:

- 25% of GPs agreed, and 23% did not know
- 45% of practice nurses agreed, and 30% did not know
- 40% of endoscopy staff agreed, and 40% did not know.
Figure 30: Perception of service interface between general practice and Waitakere Hospital Endoscopy Unit, general practitioners, practice nurses and/or other staff

- Clear roles and responsibilities for delivering BSP
  - GPs (n=82): 26% disagree, 22% agree
  - Practice nurse/other (n=91): 28% disagree, 40% agree
- Adequate communication processes for delivering BSP
  - GPs (n=82): 24% disagree, 18% agree
  - Practice nurse/other (n=91): 29% disagree, 35% agree
- Effective working relationships to achieve seamless process for patients along BSP pathway
  - GPs (n=82): 23% disagree, 20% agree
  - Practice nurse/other (n=91): 30% disagree, 34% agree

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: BSP = Bowel Screening Pilot

Figure 31: Perception of service interface between general practice and Waitakere Hospital Endoscopy Unit, endoscopy staff

- Clear roles and responsibilities for delivering BSP
  - Endoscopy staff (n=20): 30% disagree, 45% agree, 10% strongly agree
- Adequate communication processes for delivering BSP
  - Endoscopy staff (n=20): 45% disagree, 25% agree, 10% strongly agree
- Effective working relationships to achieve seamless process for patients along BSP pathway
  - Endoscopy staff (n=20): 40% disagree, 30% agree, 10% strongly agree

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: BSP = Bowel Screening Pilot
Respondents who did not agree that there are effective working relationships between general practice and the WHEU to achieve a seamless process for patients along the BSP pathway were given the opportunity to provide reasons for their answer. Of the 27 people who responded in this way, 21 were GPs and six were practice nurses or other general practice staff. The main reasons for disagreeing with the above statement were:

- lack of information and/or communication about the BSP
  
  “I do not think this will become apparent until the pilot has commenced, but there is still a lot of providers who do not know enough about the service to be able to make the process seamless. We will not know the extent of the problems until the service is up and running.”

  “Need to be better informed about the screening pilot and the role of General Practice in this pilot to ensure a ‘seamless process’.”

- low service capacity (especially for colonoscopy services)
  
  “I do know that there is a huge wait currently for endoscopy and CT colonography at Waitemata and I just don’t know how an increase in need for these services, that will inevitably be generated by the screening programme, will be met.”

- poor service integration (between primary and secondary services, including WHEU)
  
  “We already have very poor access to endoscopy services with very poor feedback mechanisms for knowing where a patient is in their ‘journey’ towards endoscopy … I would need very good evidence and reassurance – such as in meetings or some level of human contact reassurance with providers that this would be possible.”

  “I think that many parts of the hospital system do not have effective working relationships with General Practice and do not always communicate well with GPs … we are treated as second class, and left out of planning implementation an awful lot.”

- concerns about funding.

Many comments regarding lack of information about the BSP reflect the fact that the survey was conducted in the early stages of the pilot and, as a result, some respondents felt that they would not know how effective working relationships were until the pilot was under way.

Some respondents gave suggestions for how to improve the effectiveness of working relationships between general practice and the WHEU. These included the use of clinical networks to build relationships and holding in-service education sessions to promote and give more detail about BSP. It was also suggested that communications templates, fax templates and IT infrastructure were required to reduce the risk of patients getting ‘lost’ in the diagnostic and/or care pathway.
General practice–Bowel Screening Pilot Coordination Centre interface

GPs and practice nurses were asked about aspects of the interface between general practice and the BSP Coordination Centre (Figure 32).

When asked about the extent to which they agreed that there are clear roles and responsibilities between general practice and the Coordination Centre for delivering the BSP:

- 36% of GPs agreed that there are, 19% disagreed and 28% did not know
- 54% of practice nurses agreed, while 24% did not know.

When asked about the extent to which they agreed that there are adequate communication processes between general practice and the Coordination Centre for delivering the BSP:

- 33% of GPs agreed that there are, 25% disagreed and 28% did not know
- 45% of practice nurses agreed, while 26% did not know.

When asked about the extent to which they agreed that working relationships between general practice and the Coordination Centre are effective in achieving a seamless process for patients along BSP pathways:

- 29% of GPs agreed, 23% disagreed and 33% did not know
- 43% of practice nurses agreed, while 29% did not know.

Figure 32: Perception of service interface between general practice and Bowel Screening Pilot Coordination Centre, general practitioners, practice nurses and/or other staff

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: GPs = general practitioners; BSP = Bowel Screening Pilot
Those providers who did not agree that there are effective working relationships between general practice and the BSP Coordination Centre to achieve a seamless process for patients along the BSP pathway were invited to provide reasons for their response. Fourteen GPs and eight practice nurses shared their reasons. The main reasons were:

- lack of information and/or communication about the BSP
  “Again, insufficient information and communication up to this point in time, so how can I have confidence in the working relationships going forward from now?”

- low service capacity
  “Wait times too long as they are for current patients for secondary care services.”

- lack of consultation or involvement of general practice at this stage
  “We are told what we are to do – passive – will feedback opportunities be available and will they be acted upon?”

- poor clinical integration

- concerns about funding

- human resources, workforce and personnel issues.

One respondent gave the following suggestion regarding communicating with providers in general practice settings:

“Again, little communication … Though I appreciated a call from the clinical head of the project, this seemed poor use of resource, and multiple other phone calls. This is an inappropriate way of communicating with GPs – should be by e-mail; we are obliged to take calls out of clinical time.”
Waitakere Hospital Endoscopy Unit–Bowel Screening Pilot Coordination Centre interface

Endoscopy staff were asked about aspects of the interface between the WHEU and the BSP Coordination Centre (Figure 33).

Most endoscopy staff indicated that there are clear roles and responsibilities between WHEU and the Coordination Centre for BSP delivery (55% agreed). Two-fifths of endoscopy staff did not know (40%).

Half of endoscopy staff indicated that there are adequate communication processes between WHEU and the Coordination Centre for delivering the BSP (50% agreed). Again, two-fifths did not know (40%).

More than half of endoscopy staff agreed that there are effective working relationships between WHEU and the Coordination Centre to achieve a seamless process for patients along BSP pathways (55%). Two-fifths did not know (40%).

Figure 33: Perception of service interface between Waitakere Hospital Endoscopy Unit and Bowel Screening Pilot Coordination Centre, endoscopy staff

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: BSP = Bowel Screening Pilot
**Waitakere Hospital Endoscopy Unit–radiology unit interface**

Endoscopy and radiology staff were asked about aspects of the interface between the WHEU and North Shore Hospital and Waitakere Hospital radiology services (Figure 34).

When asked about the extent to which they agreed that there are **clear roles and responsibilities** between the WHEU and radiology services for delivering the BSP:
- 50% of endoscopy staff did not know, and 40% agreed
- 33% of radiology staff did not know, and 30% agreed.

When asked about the extent to which they agreed that there are **adequate communication processes** between the WHEU and radiology services for delivering the BSP:
- 50% of endoscopy staff did not know, while 35% agreed
- 30% of radiology staff did not know, and 23% agreed.

When asked about the extent to which they agreed that **working relationships between the WHEU and North Shore Hospital and Waitakere Hospital radiology services are effective in achieving a seamless process** for patients along BSP pathways:
- 40% of endoscopy staff did not know, and 45% agreed
- 37% of radiology staff did not know, while 33% agreed.

**Figure 34: Perception of service interface between Waitakere Hospital Endoscopy Unit and North Shore Hospital–Waitakere Hospital radiology services, endoscopy and radiology staff**

Base: All respondents who answered the survey question
Source: BSP Evaluation online provider survey, 2011
Note: BSP = Bowel Screening Pilot
6.6 Other qualitative feedback on the Bowel Screening Pilot

At the end of the survey, respondents were given the opportunity to give any other feedback they may have about the BSP in WDHB. Feedback was given by 91 respondents, including 42 GPs, 33 practice nurses, five endoscopy and 11 radiology staff.

Around half of the additional comments were positive, and half were mixed or expressed concerns about aspects of the BSP. Many gave comments of general support for the BSP and the need to address bowel cancer in New Zealand.

“From the communications I have had, I think the Waitemata Bowel Screen Pilot [sic] will work very well; there are a lot of committed people working on this pilot.”

“We’re impressed with the co-ordinator who explained the system to us. Further updates as it rolls out would be beneficial.”

The following areas of concern or improvement were identified. Many of these were consistent with qualitative comments provided earlier in the survey.

- **Need for more information and better communication about the BSP**: A significant number of respondents from all provider groups commented that they needed more information about the BSP, and some mentioned that the survey itself was “the first time [they] have heard about this screening pilot”.

Some respondents (particularly those in general practice settings) were concerned about having to deal with patient requests for information when they did not feel adequately informed.

“PHO has supplied little or nothing in the way of resources and we are the first port of call for queries from patients.”

Several respondents indicated a particular interest in the development process for the BSP and questioned whether GPs were involved.

- **Concern about lack of capacity and/or increased workload for colonoscopy services**: Many respondents are already concerned about the existing back-log for colonoscopy services, before the BSP has started, and wonder what will happen for patients already on the waiting list. GPs, in particular, expressed concern that existing patients will be displaced or further delayed by BSP patients. Some respondents made reference to, or gave examples of, patients whose bowel cancer has advanced unnecessarily due to the long wait for investigation and/or colonoscopy.

- **Concern about lack of capacity and/or increased workload for general practice**: Respondents gave mixed views when commenting on the increase in workload for staff in general practice. While supportive of the BSP in principle, respondents indicated that it is too early to predict workload and service capacity. As illustrated in the quote below, many have concerns about funding and additional expectations on general practice.

“I think if done properly and well it will definitely increase the workload for GPs. I cannot predict the outcome of how effective the project will be – depends on too many variables.”

- **Funding concerns**: GPs, in particular, expressed concerns about the funding mechanism for the BSP, noting that recall and/or follow-up costs are not included in initial consultation fee for patients. Providers in general practice were concerned about how this will be covered in terms of:

  (1) general practice remuneration

“This is going to incur a lot of work for GPs; is anyone going to reimburse us?”
“It’s good stuff, but we already have a lot…dumped on us and expected to do it for nothing or inadequate consideration of the time and staff costs involved.”

“…Already carrying the loads for recalling vaccinations, measles, meningitis…”

“[How should primary care] be compensated for this seamless service? Many secondary professionals have no idea how GP-land works and that they can just pick up a programme like this – on top of cervical, breast, prostate, cholesterol, Well Child etc…”

(2) costs to patients – providers prefer not to pass costs on to patients for additional visits, only to then wait for overloaded secondary and/or diagnostic services.

“Patients will end up having to pay to come back for a consultation and it is unfair to them.”

Summary: GPs, practice nurses and endoscopy staff are confident in explaining the BSP to patients; radiology staff less so. Overall, GPs, practice nurses and endoscopy staff rate their expected performance delivering relevant BSP activities fairly highly. For GPs, the area where expected performance was not rated as highly was encouraging eligible patients to remain within the public system for bowel screening.

All provider groups expect that the BSP will increase their workload. Views on service capacity are mixed, with provider groups tending to rate the capacity of their own service more highly than the rating given by other groups. GPs, in particular, noted concerns about the capacity of colonoscopy, CT colonography and secondary care services in relation to the BSP.

Currently, there is uncertainty about the effectiveness of interfaces between the different service providers in the BSP. This is not surprising, given the BSP is at the very early stages of implementation.
7. Discussion

This report provides a baseline indicative measure of BSP providers’ knowledge, attitudes and perceptions relating to the BSP and a possible national bowel screening programme. Key findings for each provider group, and potential implications of the findings for the BSP and the evaluation of the BSP, are discussed below. The findings and discussion need to be considered in the context that the survey was conducted before the full implementation of the BSP.

General practice

Increase knowledge of the key role of general practice in Bowel Screening Pilot pathways

Awareness of, and support for, the BSP is high among GPs and practice nurses. This is encouraging at this early stage of the pilot. In the main, GPs and practice nurses are aware of the different roles of general practice in the BSP. However, GPs demonstrate some uncertainty around four key general practice BSP activities:

- encouraging eligible patients to remain within the public system for bowel screening
- notifying patients who receive a positive iFOBT
- managing or recalling patients found to be at increased risk of bowel cancer through the BSP
- liaising with the BSP Coordination Centre about being unable to contact patients with a positive iFOBT.

These knowledge gaps highlight the critical importance of ongoing BSP promotion and information provision to general practice. A key focus of these communications is ensuring that all GPs are aware of their key BSP role in notifying patients of a positive iFOBT, as well as ongoing patient management activities. While the BSP has in-built safety nets for identifying and notifying patients with a positive iFOBT, the intent of GP involvement in the BSP is to enhance the patient experience and foster the patient–GP relationship.

Given the relatively high level of private health insurance in WDHB, GPs play a key role in encouraging patients with a positive iFOBT to remain within the BSP. If a significant number of patients opt to go privately for their colonoscopy, this may create a gap for the evaluation due to outcomes for these patients being unknown.

The New Zealand Familial Gastrointestinal Cancer Registry is a recently implemented service that offers assessment, diagnosis and surveillance of inherited gastrointestinal cancer syndromes. Currently, awareness of the role of the New Zealand Familial Gastrointestinal Cancer Registry is not high across all health providers.

Increase understanding of Bowel Screening Pilot interfaces and patient pathways

GPs have low awareness and confidence in BSP roles that interface with other providers, in particular, liaising with the BSP Coordination Centre about uncontactable patients. Given the early stages of the BSP, this lack of appreciation of key interfaces is not surprising. However, it highlights the need for further work to be undertaken with general practice staff to increase understanding of the BSP system, its pathways, the providers involved, where general practice fits and where it needs to interface with other providers.
Unknown impact on general practice with increased workload from the Bowel Screening Pilot

Although general practice staff are generally confident that their practice will perform its BSP roles well over the next 12 months, they also expect that the BSP will result in an increase in workload for their practice. Some GPs are concerned about the additional demands that screening programmes place on their time and financial resources. In addition, there appears to be some uncertainty among GPs about funding mechanisms for the BSP in WDHB.

A UK pilot of bowel screening found that primary care providers experienced real workload increases, such as paperwork, administration and providing information to patients, and recommended that these extra demands be ‘adequately resourced’ in screening programmes. The implications of increased workload on general practice will be explored in the qualitative immersion visits to be undertaken later in 2012.

Reassurance needed about impact of the Bowel Screening Pilot on symptomatic patients

GPs are concerned about the capacity of other services to meet the needs of the BSP, in particular, colonoscopy, CT colonography and secondary care services. Qualitative comments from GPs suggest a particular concern that the BSP will reduce available services for symptomatic patients.

The specifics of colonoscopy service capacity (both of premises and personnel) have been explored by the MoH, including estimating the additional demand for colonoscopy services by DHBs, were a bowel screening programme to be introduced nationally. Other pilots internationally have highlighted the risks when colonoscopy services are overstretched before a pilot commences, and the need for performance standards at the outset to minimise quality control issues. In the lead up to the commencement of the BSP, WHEU has been working to clear the waiting list for colonoscopy in WDHB. In this context, GPs need reassurance that their symptomatic patients will be able to access appropriate services.

Endoscopy staff

Increase understanding of Bowel Screening Pilot interfaces and patient pathways

Reflecting their core role, endoscopy staff are aware of the BSP and agree that they have an important role. There is also near universal support for the BSP and for the possible national roll-out of a bowel screening programme. Most endoscopy staff are confident explaining the BSP to their patients and feel well-informed about the BSP.

In the main, endoscopy staff appeared to have good awareness of ‘core endoscopy functions’, such as undertaking pre-assessments, providing high-quality colonoscopies and providing results to GPs. However, they appear less certain about roles that interface with other BSP providers and facilitate patients along BSP pathways. Key areas to enhance understanding are notifying patients who receive a positive iFOBT (if they do not have a GP

---

8 UK CRC Screening Pilot Evaluation Team (2003) Evaluation of the UK Colorectal Cancer Screening Pilot.

9 Ibid.
or have not been notified by general practice) and referring patients for a CT colonography (if a colonoscopy is not suitable for them).

**Radiology staff**

**Increase awareness of radiology role in the Bowel Screening Pilot**

In general, awareness, knowledge and understanding of the BSP is lower among radiology staff at Waitakere Hospital and North Shore Hospital than it is among general practice and endoscopy staff. To some extent, this is to be expected at this early stage of the BSP, and it reflects feedback from WDHB radiology staff that, at the time of survey, there had been minimal discussion with radiology staff regarding the BSP. Consideration needs to be given to a communication strategy specifically targeted at increasing BSP knowledge, understanding and engagement among radiology staff.

**Implications for the Bowel Screening Pilot**

Overall, the provider survey indicates high baseline levels of awareness, knowledge and support for the BSP among general practice, endoscopy and radiology staff. The findings also highlight a number of areas for potential improvement, the most important of these being knowledge, interface and capacity.

**Enhancing knowledge of BSP roles across the different providers**: Consideration is needed as to whether existing communication strategies will address identified knowledge gaps or if these need revision. The MoH may also wish to address knowledge gaps about the role of the New Zealand Familial Gastrointestinal Cancer Registry, which has an important interface with the BSP.

**Increasing understanding of provider interfaces on the BSP pathways to ensure eligible patients have a seamless, safe and acceptable experience of the BSP**: While it is acknowledged that this survey was conducted in the very early stages of the BSP implementation, the challenge of ensuring a seamless pathway for patients has been indicated. Quality assurance mechanisms are in place to minimise the risk to patients not progressing appropriately along the BSP pathways. However, consideration is needed as to whether further strategies are required at this stage to address this potential issue.

**Capacity to service the BSP is a key concern for some providers, particularly GPs**: Widespread and ongoing perceptions of inadequate service capacity or increased workload may damage the support currently demonstrated by providers and potentially undermine GPs’ willingness to encourage patients to remain in the BSP. Reflecting that the WHEU has been working to clear the waiting list for colonoscopies, the MoH and WDHB need to consider whether this information will go some way to address capacity concerns in the immediate term.

**Implications for the Bowel Screening Pilot Evaluation**

The baseline survey, while indicative, provides an important baseline measure of health providers’ knowledge, attitudes and perceptions relating to the BSP. The 2013 provider survey will assess changes in provider knowledge of BSP roles and responsibilities, including interfaces with other providers, as well as provider confidence in BSP service capacity.
Qualitative research in 2012 will provide an important opportunity to explore provider interfaces, understanding and implementation of roles and responsibilities, drivers of attitudes and behaviours, and initial impact of the BSP on provider services.
8. Bibliography


Appendix 1.0: Baseline Provider Survey

Q.1 Firstly, please tell us which of these best describes your role:
[Click one]

[REQUIRE ANSWER]

(5)
- General Practitioner
- Practice Nurse
- Other staff in general practice
- Endoscopy Unit staff at Waitakere Hospital
- Radiology staff at North Shore Hospital
- Radiology staff at Waitakere Hospital

Q.2 Before you received this email, were you aware of the Bowel Screening Pilot that has just started in Waitemata DHB?
[Click one]

[REQUIRE ANSWER]

(6)
- Yes
- No
- Don’t know

[A - IF THE ANSWER TO QUESTION 2 IS 1, THEN SKIP TO QUESTION 4]

Q.3 From November 2011, men and women aged 50 to 74 who live in the Waitemata DHB area are being invited to take part in a free bowel screening programme to check for early signs of bowel cancer.

The programme is a four-year pilot to test whether bowel screening should be introduced throughout New Zealand.

During the four-year pilot most people will be screened twice.
Q.4 From which of the following sources have you seen or heard information about the Bowel Screening Pilot that has just started in Waitemata DHB?
[Click all that apply. Multiple answers possible]

[REQUIRE ANSWER]

(7-28)
- Min 01 Ministry of Health
- Min 02 Waitemata DHB
- Min 03 Bowel Screening Pilot Coordination Centre
- Min 04 Bowel Screening Pilot website
- Min 05 Primary Health Organisation
- Min 06 Professional organisation correspondence (e.g. RNZGP, NZ Nurses Organisation)
- Min 07 Colleagues
- Min 08 Conference / meetings / presentations
- Min 09 Patients
- Min 10 Media
- Min 11 Other (please describe...)
- Min 12 Not heard anything about the Bowel Screening Pilot

[EXCLUSIVE ANSWER: "Not heard anything about the Bowel Screening Pilot"]

Q.5 other11

[REQUIRE ANSWER]

___________________________________________________________________________

(29-78)

Q.6 To what extent do you support or oppose the Bowel Screening Pilot in Waitemata DHB?
[Click one]

[REQUIRE ANSWER]

(79)
- Min 1 Strongly support
- Min 2 Support
- Min 3 Do not support
- Min 4 Strongly oppose
- Min 5 Don’t know

[A - IF THE ANSWER TO QUESTION  6 IS NOT 3-4, THEN SKIP TO QUESTION 8]

Q.7 For what reasons do you not support the Bowel Screening Pilot?
[Type in the box, click NEXT to continue]

[REQUIRE ANSWER]

___________________________________________________________________________

(80-1079)

[A - IF THE ANSWER TO QUESTION  1 IS NOT 1-3, THEN SKIP TO QUESTION 10]
Q.8 To what extent do you agree or disagree that the following activities are the role of general practice in the Bowel Screening Pilot?

[Click one on each row]

<table>
<thead>
<tr>
<th>Activity</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promoting participation in the Bowel Screening Pilot to</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>6 (1080)</td>
</tr>
<tr>
<td>eligible patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encouraging eligible patients to remain within the public</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>6 (1081)</td>
</tr>
<tr>
<td>system for bowel screening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifying patients who are ineligible to participate in</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>6 (1082)</td>
</tr>
<tr>
<td>the Bowel Screening Pilot due to, for example, a personal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>or family history of bowel cancer or polyps, or significant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>co-morbidities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Referring patients with a significant family history of</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (1083)</td>
</tr>
<tr>
<td>bowel cancer to the New Zealand Familial Gastrointestinal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer Registry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q.9 To what extent do you agree or disagree that the following activities are the role of general practice in the Bowel Screening Pilot?

[Click one on each row]

<table>
<thead>
<tr>
<th>Activity</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notifying patients who receive a positive iFOBT of their</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (1084)</td>
</tr>
<tr>
<td>result</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussing the implications of a positive iFOBT with</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (1085)</td>
</tr>
<tr>
<td>patients before referring to the Waitakere Hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endoscopy Unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing the Waitakere Hospital Endoscopy Unit with</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (1086)</td>
</tr>
<tr>
<td>clinical information for pre-assessment of patients who</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>have a positive iFOBT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liaising with the Bowel Screening Pilot Coordination</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (1087)</td>
</tr>
<tr>
<td>Centre about being unable to contact patients with a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>positive iFOBT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managing or recalling patients, as required, if found to</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (1088)</td>
</tr>
<tr>
<td>be at increased risk of developing bowel cancer through</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the Bowel Screening Pilot</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[If the answer to question 1 is not 4, then skip to question 12]

Q.10 To what extent do you agree or disagree that the following activities are the roles of the Waitakere Hospital Endoscopy Unit in the Bowel Screening Pilot?

[Click one on each row]
Q.11 To what extent do you agree or disagree that the following activities are the roles of Waitakere Hospital Endoscopy Unit in the Bowel Screening Pilot?

[Click one on each row]

<table>
<thead>
<tr>
<th>Activity</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notifying patients who receive a positive iFOBT, if they do not have a GP or have not been notified by general practice</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Liaising with general practice about patients the Endoscopy Unit are unable to contact to notify about their positive iFOBTs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Undertaking high quality pre-assessments of Bowel Screening Pilot patients</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Referring patients for a CT colonography if a colonoscopy is not suitable for them</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Providing high quality colonoscopy to Bowel Screening Pilot patients</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Providing results of colonoscopy to Bowel Screening Pilot patients</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Providing results of colonoscopy to GPs of Bowel Screening Pilot patients</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Providing results of colonoscopy to the Bowel Screening Pilot Coordination Centre</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

[A - IF THE ANSWER TO QUESTION 1 IS NOT 1-3, THEN SKIP TO QUESTION 14]
Q.12 General practice has a unique role in the Waitemata DHB Bowel Screening Pilot, informing patients about positive iFOBT results, referring them to Waitakere Hospital Endoscopy Unit and supporting patients as appropriate after their colonoscopy or other diagnostic investigation.

As the Bowel Screening Pilot rolls out over the next twelve months, please rate how you expect your general practice will perform in the following areas:

[Click one on each row]

<table>
<thead>
<tr>
<th>Promoting participation in the Bowel Screening Pilot to eligible patients</th>
<th>Very good</th>
<th>Good</th>
<th>Neither good nor poor</th>
<th>Poor</th>
<th>Very poor</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encouraging eligible patients to remain within the public system for bowel screening</td>
<td>[\text{Q} ] 1</td>
<td>[\text{Q} ] 2</td>
<td>[\text{Q} ] 3</td>
<td>[\text{Q} ] 4</td>
<td>[\text{Q} ] 5</td>
<td>[\text{Q} ] 6</td>
</tr>
<tr>
<td>Identifying patients who are ineligible to participate in the Bowel Screening Pilot due to, for example, a personal or family history of bowel cancer or polyps, or significant co-morbidities</td>
<td>[\text{Q} ] 1</td>
<td>[\text{Q} ] 2</td>
<td>[\text{Q} ] 3</td>
<td>[\text{Q} ] 4</td>
<td>[\text{Q} ] 5</td>
<td>[\text{Q} ] 6</td>
</tr>
<tr>
<td>Referring patients with a significant family history of bowel cancer to the New Zealand Familial Gastrointestinal Cancer Registry</td>
<td>[\text{Q} ] 1</td>
<td>[\text{Q} ] 2</td>
<td>[\text{Q} ] 3</td>
<td>[\text{Q} ] 4</td>
<td>[\text{Q} ] 5</td>
<td>[\text{Q} ] 6</td>
</tr>
</tbody>
</table>

Q.13 Please rate how you expect your general practice will perform in the following areas as the Bowel Screening Pilot rolls out over the next twelve months:

[Click one on each row]

<table>
<thead>
<tr>
<th>Notifying all patients who receive a positive iFOBT of their result</th>
<th>Very good</th>
<th>Good</th>
<th>Neither good nor poor</th>
<th>Poor</th>
<th>Very poor</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussing the implications of a positive iFOBT with all patients before referring to the Waitakere Hospital Endoscopy Unit</td>
<td>[\text{Q} ] 1</td>
<td>[\text{Q} ] 2</td>
<td>[\text{Q} ] 3</td>
<td>[\text{Q} ] 4</td>
<td>[\text{Q} ] 5</td>
<td>[\text{Q} ] 6</td>
</tr>
<tr>
<td>Proactively providing the Waitakere Hospital Endoscopy Unit with clinical information for pre-assessment of all patients who receive a positive iFOBT</td>
<td>[\text{Q} ] 1</td>
<td>[\text{Q} ] 2</td>
<td>[\text{Q} ] 3</td>
<td>[\text{Q} ] 4</td>
<td>[\text{Q} ] 5</td>
<td>[\text{Q} ] 6</td>
</tr>
<tr>
<td>Proactively liaising with the Bowel Screening Pilot Coordination Centre about being unable to contact patients with a positive iFOBT</td>
<td>[\text{Q} ] 1</td>
<td>[\text{Q} ] 2</td>
<td>[\text{Q} ] 3</td>
<td>[\text{Q} ] 4</td>
<td>[\text{Q} ] 5</td>
<td>[\text{Q} ] 6</td>
</tr>
<tr>
<td>Managing or recalling patients, as required, if found to be at increased risk of developing bowel cancer through the Bowel Screening Pilot</td>
<td>[\text{Q} ] 1</td>
<td>[\text{Q} ] 2</td>
<td>[\text{Q} ] 3</td>
<td>[\text{Q} ] 4</td>
<td>[\text{Q} ] 5</td>
<td>[\text{Q} ] 6</td>
</tr>
</tbody>
</table>

[A - IF THE ANSWER TO QUESTION 1 IS NOT 4, THEN SKIP TO QUESTION 16]
Q.14 The Waitakere Hospital Endoscopy Unit has an important role in the Waitemata DHB Bowel Screening Pilot, informing patients about positive iFOBT results if they do not have a GP or are not informed by their GP, assessing patients’ suitability for a colonoscopy as compared with a CT colonography, monitoring patients following colonoscopy or other diagnostic investigation, as well as performing colonoscopies.

As the Bowel Screening Pilot rolls out over the next twelve months, please rate how you expect the Waitakere Hospital Endoscopy Unit will perform in the following areas:

[Click one on each row]

<table>
<thead>
<tr>
<th></th>
<th>Very good</th>
<th>Good</th>
<th>Neither good nor poor</th>
<th>Poor</th>
<th>Very poor</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notifying all patients who receive a positive iFOBT, if they do not have a GP or have not been notified by general practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proactively liaising with general practice about patients the Endoscopy Unit are unable to contact to notify about their positive iFOBTs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently undertaking high quality pre-assessments of Bowel Screening Pilot patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Referring patients for a CT colonography if a colonoscopy is not suitable for them</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q.15 Please rate how you expect the Waitakere Hospital Endoscopy Unit will perform in the following areas as the Bowel Screening Pilot rolls out over the next twelve months:

[Click one on each row]

<table>
<thead>
<tr>
<th></th>
<th>Very good</th>
<th>Good</th>
<th>Neither good nor poor</th>
<th>Poor</th>
<th>Very poor</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing high quality colonoscopy to Bowel Screening Pilot patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing results of colonoscopy to Bowel Screening Pilot patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing results of colonoscopy to Bowel Screening Pilot patients’ GP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing results of colonoscopy to the Bowel Screening Pilot Coordination Centre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[A - IF THE ANSWER TO QUESTION 1 IS NOT 1-3, THEN SKIP TO QUESTION 17]

Q.16 To what extent do you think that the Bowel Screening Pilot will increase or decrease the workload in your general practice?

[Click one]
Q.17 To what extent do you think that the Bowel Screening Pilot will increase or decrease the workload in the Endoscopy Unit at Waitakere Hospital?

[Click one]

Q.18 To what extent do you think that the Bowel Screening Pilot will increase or decrease the workload in radiology at North Shore Hospital?

[Click one]
Q.19 To what extent do you think that the Bowel Screening Pilot will increase or decrease the workload in radiology at Waitakere Hospital?

[Click one]

[REQUIRE ANSWER]

(1117)

☑: Significantly increase
☑: Increase
☑: No change
☑: Decrease
☑: Significantly decrease
☑: Don't know

[A - IF THE ANSWER TO QUESTION 1 IS NOT 1-3, THEN SKIP TO QUESTION 21]

Q.20 Will the Bowel Screening Pilot have a positive, negative or no impact on other services provided by your general practice?

[Click one]

[REQUIRE ANSWER]

(1118)

☑: Positive impact
☑: No impact
☑: Negative impact
☑: Don't know

[A - IF THE ANSWER TO QUESTION 1 IS NOT 4, THEN SKIP TO QUESTION 22]

Q.21 Will the Bowel Screening Pilot have a positive, negative or no impact on other services provided by Waitakere Hospital Endoscopy Unit?

[Click one]

[REQUIRE ANSWER]

(1119)

☑: Positive impact
☑: No impact
☑: Negative impact
☑: Don't know

[A - IF THE ANSWER TO QUESTION 1 IS NOT 5-6, THEN SKIP TO QUESTION 24]
Q.22 Will the Bowel Screening Pilot have a positive, negative or no impact on other services provided by radiology at North Shore Hospital?  
*[Click one]*

[REQUIRE ANSWER]

(1120)  
☑ : Positive impact  
☐ : No impact  
☐ : Negative impact  
☐ : Don’t know

Q.23 Will the Bowel Screening Pilot have a positive, negative or no impact on other services provided by radiology at Waitakere Hospital?  
*[Click one]*

[REQUIRE ANSWER]

(1121)  
☑ : Positive impact  
☐ : No impact  
☐ : Negative impact  
☐ : Don’t know

Q.24 To what extent do you agree or disagree with the following statements..  
*[Click one on each row]*

[REQUIRE ANSWER]

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am confident in explaining the Bowel Screening Pilot to patients</td>
<td>☑ 1</td>
<td>☑ 2</td>
<td>☑ 3</td>
<td>☑ 4</td>
<td>☑ 5</td>
<td>☑ 6</td>
</tr>
<tr>
<td>I have an important role in the Bowel Screening Pilot</td>
<td>☑ 1</td>
<td>☑ 2</td>
<td>☑ 3</td>
<td>☑ 4</td>
<td>☑ 5</td>
<td>☑ 6</td>
</tr>
<tr>
<td>I am not well informed about the Bowel Screening Pilot</td>
<td>☑ 1</td>
<td>☑ 2</td>
<td>☑ 3</td>
<td>☑ 4</td>
<td>☑ 5</td>
<td>☑ 6</td>
</tr>
<tr>
<td>I support the use of the iFOBT as the screening test in the Pilot</td>
<td>☑ 1</td>
<td>☑ 2</td>
<td>☑ 3</td>
<td>☑ 4</td>
<td>☑ 5</td>
<td>☑ 6</td>
</tr>
<tr>
<td>The bowel cancer death rate in New Zealand is a significant health concern</td>
<td>☑ 1</td>
<td>☑ 2</td>
<td>☑ 3</td>
<td>☑ 4</td>
<td>☑ 5</td>
<td>☑ 6</td>
</tr>
<tr>
<td>I am aware of the role of the New Zealand Familial Gastrointestinal Cancer Registry</td>
<td>☑ 1</td>
<td>☑ 2</td>
<td>☑ 3</td>
<td>☑ 4</td>
<td>☑ 5</td>
<td>☑ 6</td>
</tr>
</tbody>
</table>
Q.25 What is your perception of current capacity to provide the following services to the Waitemata DHB Bowel Screening Pilot?
[Click one on each row]

**[REQUIRE ANSWER]**

<table>
<thead>
<tr>
<th>Service</th>
<th>More than enough capacity</th>
<th>Just about right</th>
<th>Not enough capacity</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory services to process iFOBTs and pathology</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 (1128)</td>
</tr>
<tr>
<td>Colonoscopy services, via the Waitakere Hospital Endoscopy Unit</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3 (1129)</td>
</tr>
<tr>
<td>CT colonography services</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4 (1130)</td>
</tr>
<tr>
<td>Secondary care services for bowel cancer, including surgery, radiotherapy, chemotherapy</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3 (1131)</td>
</tr>
<tr>
<td>General practice notification of positive iFOBT results and referral to Waitakere Hospital Endoscopy Unit</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4 (1132)</td>
</tr>
<tr>
<td>Managing or recalling patients, as required, if found to be at increased risk of developing bowel cancer through the Bowel Screening Pilot</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3 (1133)</td>
</tr>
<tr>
<td>Coordination of the Bowel Screening Pilot by the Coordination Centre</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3 (1134)</td>
</tr>
</tbody>
</table>

[A - IF THE ANSWER TO QUESTION 1 IS NOT 1-4, THEN SKIP TO QUESTION 28]

Q.26 Focusing on the interface between **general practice** and the Waitakere Hospital Endoscopy Unit, to what extent do you agree or disagree that there are:
[Click one on each row]

**[REQUIRE ANSWER]**

<table>
<thead>
<tr>
<th>Service</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear roles and responsibilities for delivering the Bowel Screening Pilot</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (1135)</td>
</tr>
<tr>
<td>Adequate communication processes for delivering the Bowel Screening Pilot</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>6 (1136)</td>
</tr>
<tr>
<td>Effective working relationships to achieve a seamless process for patients along the Bowel Screening Pilot pathways</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>6 (1137)</td>
</tr>
</tbody>
</table>

[A - IF THE ANSWER TO SUB-QUESTION 3 OF QUESTION 26 IS NOT 4-5, THEN SKIP TO QUESTION 28]
Q.27 Please briefly explain your reasons for disagreeing that there are:

"Effective working relationships, between general practice and the Waitakere Hospital Endoscopy Unit, to achieve a seamless process for patients along the Bowel Screening Pilot pathways"

[Type in the box, click NEXT to continue]

[REQUIRE ANSWER]

__________________________________________________________ (1138-1637)

[A - IF THE ANSWER TO QUESTION 1 IS NOT 1-3, THEN SKIP TO QUESTION 30]

Q.28 Focusing on the interface between general practice and the Bowel Screening Pilot Coordination Centre, to what extent do you agree or disagree that there are:

[Click one on each row]

[REQUIRE ANSWER]

<table>
<thead>
<tr>
<th>Clear roles and responsibilities for delivering the Bowel Screening Pilot</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Adequate communication processes for delivering the Bowel Screening Pilot</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Effective working relationships to achieve a seamless process for patients along the Bowel Screening Pilot pathways</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

[A - IF THE ANSWER TO SUB-QUESTION 3 OF QUESTION 28 IS NOT 4-5, THEN SKIP TO QUESTION 30]

Q.29 Please briefly explain your reasons for disagreeing that there are:

"Effective working relationships, between general practice and the Bowel Screening Pilot Coordination Centre, to achieve a seamless process for patients along the Bowel Screening Pilot pathways"

[Type in the box, click NEXT to continue]

[REQUIRE ANSWER]

__________________________________________________________ (1641-2140)

[A - IF THE ANSWER TO QUESTION 1 IS NOT 4, THEN SKIP TO QUESTION 32]

Q.30 Focusing on the interface between the Waitakere Hospital Endoscopy Unit and the Bowel Screening Pilot Coordination Centre, to what extent do you agree or disagree that there are:

[Click one on each row]
**Q.31** Please briefly explain your reasons for disagreeing that there are:

"**Effective working relationships, between the Waitakere Hospital Endoscopy Unit and the Bowel Screening Pilot Coordination Centre, to achieve a seamless process for patients along the Bowel Screening Pilot pathways**"

[Type in the box, click NEXT to continue]

---

**Q.32** Focusing on the interface between the Waitakere Hospital Endoscopy Unit and North Shore and Waitakere Hospitals' radiology services, to what extent do you agree or disagree that there are:

[Click one on each row]

---

**Q.33** Please briefly explain your reasons for disagreeing that there are:

"**Effective working relationships, between the Waitakere Hospital Endoscopy Unit and North Shore and Waitakere Hospitals' radiology services, to achieve a seamless process for patients along the Bowel Screening Pilot pathways**"
Q.34 To what extent do you support or oppose the introduction of a national Bowel Screening programme?

[Click one]

Q.35 What other feedback do you have about the Waitemata DHB Bowel Screening Pilot?

[Type in the box, click NEXT to continue]

Q.36 And finally, some questions about you and where you work:

Please tell us your gender.

[Click one]

Q.37 Which ethnic group/s do you belong to?

[Click all that apply. Multiple answers possible]
Q.38 other9

[REQUIRE ANSWER]

_______________________________________________________________________ (8158-8207)

[A - IF THE ANSWER TO QUESTION 1 IS NOT 4-6, THEN SKIP TO QUESTION 41]

Q.39 Which of the following best describes your role?
   [Click one]

[REQUIRE ANSWER]

(8208)
   ❑  Nurse
   ❑  Endoscopist
   ❑  Other technical staff
   ❑  Radiographer
   ❑  Radiologist
   ❑  Manager
   ❑  Administrator
   ❑  Other (please specify...)

[OTHER, SPECIFY - CHOICE OR SUB-QUEST. 8]

Q.40 other8

[REQUIRE ANSWER]

_______________________________________________________________________ (8209-8258)

[A - IF THE ANSWER TO QUESTION 1 IS NOT 1-3, THEN SKIP TO QUESTION 46]
Q.41 In which of these DHB areas is your general practice located?

[REQUIRE ANSWER]

(8259)
- Waitemata DHB
- Auckland DHB
- Counties Manukau DHB
- Other DHB

Q.42 How many full-time equivalent GPs work in your general practice?

[Type a number in the box]

[REQUIRE ANSWER]

Number of full-time equivalent GPs: .................. (8260-8263)

Q.43 In your estimate, which of the following best describes the number of patients enrolled in your general practice?

[Click one]

[REQUIRE ANSWER]

(8264)
- 0-5,000
- 5,001-10,000
- 10,001 or more

Q.44 Please indicate the approximate percentage of your enrolled patient population in each of the following ethnic groups:

Type just a number in each box, without the % sign. e.g. if 25%, type 25.

The total should be approximately 100.

Please enter percentages in the boxes OR if you don’t know, leave all 5 percentage boxes blank and click the “Don’t Know” box below.

New Zealand Māori  (8265-8267)
Pacific Island  (8268-8270)
Asian  (8271-8273)
Pākehā/ NZ European  (8274-8276)
Other  (8277-8279)

Q.45 Or if you cannot answer the question above, please click the "Don’t Know" box below...

(8280-8281)
- Don’t know

Q.46 This ends the survey.

If you want to enter the prize draw for the hamper, please enter your email address below.
Q.47
Thank you so much for your input

Your feedback will help the Ministry of Health and Waitemata DHB to improve the Bowel Screening Pilot. If you have any questions about the evaluation of the Bowel Screening Pilot, please contact Kiri Milne, Litmus <mailto:kiri@litmus.co.nz>kiri@litmus.co.nz</mailto>

Once you have clicked the FINISH button below, you will not be able to re-access your answers.

Q.48 Date ______________ (8332-8340)

Q.49 Time __________ (8341-8346)

Q.50 Duration __________ (8347-8352)

Q.51 password

__________________________________________________ (8353-8377)
## Appendix 2.0: Results of Q20, Q21, Q22 and Q23

<table>
<thead>
<tr>
<th>Sample</th>
<th>Positive Impact (%)</th>
<th>No Impact (%)</th>
<th>Negative Impact (%)</th>
<th>Don’t Know (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSP impact on other services provided by general practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPs (n=77)</td>
<td>43</td>
<td>30</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Practice nurses/other (n=88)</td>
<td>58</td>
<td>15</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>Endoscopy staff (n=20)</td>
<td>65</td>
<td>5</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Radiology staff (n=30)</td>
<td>43</td>
<td>23</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>Radiology staff (n=30)</td>
<td>40</td>
<td>20</td>
<td>7</td>
<td>33</td>
</tr>
<tr>
<td>BSP impact on other services provided by Endo Unit, Waitakere Hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endoscopy staff (n=20)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiology staff (n=30)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSP impact on other services provided by radiology, N Shore Hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiology staff (n=30)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSP impact on other services provided by radiology, Waitakere Hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>