3 Pilot Program

The Bowel Cancer Screening Pilot Program ran between November 2002 and June 2004 at three sites: parts of Melbourne and Adelaide and in Mackay, Queensland. People aged 55 to 74 years on 1 January 2003 were invited to participate. The evaluation report of the Pilot Program recommended that the frequency of screening for the NBCSP should be biennial.

In order to assess rescreening rates and outcomes of rescreening, the first phase of the NBCSP offered all members of the Pilot population the opportunity to screen, regardless of whether or not they participated in the initial screening round and regardless of where they now lived in Australia.

People involved in the Pilot were identified as either 'participants' (having participated in the initial screening round) or 'invitees' (people re-invited after not having participated in the initial screening round). In order to assess changes in screening activities over time, this report distinguishes between the two groups for participation, FOBT completion and positivity, and overall outcomes.

Age ranges are based on a person's age as at 1 January 2003. This is the date by which age cohorts were classified in the Pilot Program and will allow direct comparison to the original Pilot rates. Age-standardised rates are standardised to the 2001 Australian population.

3.1 Participation, Pilot Program

Invitations sent both to Pilot participants to rescreen and Pilot invitees to initially screen were included in this analysis.

The NBCSP commenced in August 2006 in Queensland and January 2007 in South Australia. The Pilot component of the NBCSP commenced in Victoria in May 2007. These timing variations were due to each state having responsibility for management of their program rollout for the Pilot site. Therefore, the numbers and rates presented in some tables cannot be used to compare participation between Pilot sites.

As many participants and invitees in the original 70–74 age cohort were aged over 75 at the time of invitation to the NBCSP, an alternate invitation method for these people was implemented in Victoria. Participants and invitees in this cohort were sent a pre-invitation letter and FOBT kits were only provided on request. Therefore, the rates presented for this age cohort may be over-estimated.

In addition, the participation rates presented in Table 3.1.1a represent an underestimate of the true screening participation rate. This is because the number of invitations in the denominator covers all invitations sent up to 30 June 2008. However, the number of responses in the numerator only covers people who have received the invitation and had time to respond. This underestimation does not affect comparisons between different groups, but it does mean that the absolute levels of participation are likely to be understated.

Summary

- There were 50,106 invitations issued to people involved in the Pilot Program to participate in the NBCSP. Of these, 1,491 people elected to opt off and 563 suspended participation in the Program. A further 28 invitations were sent to people outside the target age of 55–74 years as at 1 January 2003. These invitations are excluded from all analyses in this report.
- There were 24,006 invitations issued by 30 June 2008 to eligible Pilot participants to rescreen and 24,018 to eligible invitees who may wish to participate in this round of screening.
- The overall age-standardised participation rate for previous Pilot participants was 79.6%. The age-standardised rate for previous Pilot participants was 71.6% for Mackay and 82.8% for Adelaide. The age-standardised rate for Melbourne was 83.8%; however, this is affected by the alternate invitation method for the 70–74 year age cohort.
- The overall age-standardised participation rate for Pilot invitees was 20.9%. The age-standardised rate for Pilot invitees was 20.5% for Mackay and 22.8% for Adelaide. The age-standardised rate was for Melbourne 23.5%; however, this is affected by the alternate invitation method for the 70–74 year age cohort. These rates are significantly lower than the participation rates for previous Pilot participants.
- There was no difference in rescreening rates between males and females who
 participated in the Pilot Program.

Table 3.1.1a: Pilot respondents, by previous Pilot participation, all sites

	Pilot partic	ipants	Pilot invi	tees	All respon	idents
•	Number	Per cent	Number	Per cent	Number	Per cent
Males						
55–59	2,977	78.6	1,097	21.7	4,074	46.1
60–64	2,318	82.2	680	22.8	2,998	51.7
65–69	2,109	79.0	578	20.2	2,687	48.6
70–74	1,368	79.3	239	19.0	1,607	53.9
Total	8,772	79.7	2,594	21.4	11,366	49.1
ASR(A)		79.8		21.1		49.7
95% CI		78.1–81.5		20.3–22.0		48.7-50.6
Females						
55–59	3,560	80.7	1,079	24.3	4,639	52.5
60–64	2,738	82.0	609	20.6	3,347	53.2
65–69	2,437	77.8	497	17.0	2,934	48.5
70–74	1,622	76.5	292	18.7	1,914	51.9
Total	10,357	79.6	2,477	20.9	12,834	51.6
ASR(A)		79.6		20.6		51.7
95% CI		77.9–81.3		19.8–21.5		50.7-52.6
Persons						
55–59	6,537	79.7	2,176	23.0	8,713	49.3
60–64	5,056	82.1	1,289	21.7	6,345	52.4
65–69	4,546	78.4	1,075	18.6	5,621	48.5
70–74	2,990	77.7	531	18.8	3,521	52.8
Total	19,129	79.7	5,071	21.1	24,200	50.4
ASR(A)		79.6		20.9		50.7
95% CI		78.5–80.8		20.3–21.5		50.0-51.3

^{1.} Respondents were defined as members of the eligible population who were sent an invitation to screen and returned a Participant Details form and/or a completed FOBT kit.

^{2.} Percentages equal the number of people involved in the Pilot Program responding to the invitation to participate in the NBCSP as a proportion of the total number of people involved in the Pilot Program who were sent an invitation to participate in the NBCSP.

^{3.} The denominator for 'Pilot participants' were those people who participated in the Pilot Program. The denominator for 'Pilot invitees' were those people invited to participate in the Pilot Program but did not participate. The denominator for 'All invitations' was the number of invitations to rescreen in the NBCSP sent to those in the Pilot Program.

^{4.} Age cohorts refer to the age of the participant as at 1 January 2003.

^{5.} ASR(A) refers to the age-standardised rate standardised to the Australian 2001 population.

^{6.} Melbourne participants and invitees in the 70–74 year age cohort were provided with a pre-invitation letter. FOBT kits were only provided on request.

Table 3.1.1b: Pilot respondents, by previous Pilot participation, Mackay

	Pilot partic	ipants	Pilot invi	tees	All respon	dents	
	Number	Per cent	Number	Per cent	Number	Per cent	
Males							
55–59	778	72.2	197	21.0	975	48.4	
60–64	594	76.5	130	25.2	724	56.1	
65–69	469	70.4	91	21.9	560	51.8	
70–74	329	68.7	35	11.7	364	46.8	
Total	2,170	72.4	453	20.9	2,623	50.8	
ASR(A)		72.2		20.4		50.8	
95% CI		69.2–75.4		18.5–22.4		48.8–52.8	
Females							
55–59	829	70.1	168	24.4	997	53.3	
60–64	602	73.9	103	23.8	705	56.5	
65–69	504	71.9	76	20.3	580	53.9	
70–74	381	67.4	37	10.9	418	46.2	
Total	2,316	71.0	384	20.9	2,700	53.0	
ASR(A)		70.9		20.6		52.8	
95% CI		67.9–74.1		18.8–22.7		50.9-54.9	
Persons							
55–59	1,607	71.1	365	22.5	1,972	50.8	
60–64	1,196	75.2	233	24.6	1,429	56.3	
65–69	973	71.2	167	21.1	1,140	52.8	
70–74	710	68.0	72	11.3	782	46.5	
Total	4,486	71.6	837	20.9	5,323	51.9	
ASR(A)		71.6		20.5		51.8	
95% CI		69.5-73.7		19.1–21.9		50.4-53.2	

^{1.} Respondents were defined as members of the eligible population who were sent an invitation to screen and returned a Participant Details form and/or a completed FOBT kit.

^{2.} Percentages equal the number of people involved in the Pilot Program responding to the invitation to participate in the NBCSP as a proportion of the total number of people involved in the Pilot Program who were sent an invitation to participate in the NBCSP.

^{3.} The denominator for 'Pilot participants' were those people who participated in the Pilot Program. The denominator for 'Pilot invitees' were those people invited to participate in the Pilot Program but did not participate. The denominator for 'All invitations' was the number of invitations to rescreen in the NBCSP sent to those in the Pilot Program.

^{4.} Age cohorts refer to the age of the participant as at 1 January 2003.

^{5.} ASR(A) refers to the age-standardised rate standardised to the Australian 2001 population.

Table 3.1.1c: Pilot respondents, by previous Pilot participation, Adelaide

	Pilot partic	ipants	Pilot invi	tees	All respor	idents
•	Number	Per cent	Number	Per cent	Number	Per cent
Males						
55–59	916	81.6	369	24.2	1,285	48.6
60–64	697	85.4	231	26.8	928	55.3
65–69	779	84.1	215	23.3	994	53.7
70–74	686	79.2	148	17.8	834	49.1
Total	3,078	82.5	963	23.3	4,041	51.3
ASR(A)		82.7		23.4		51.6
95% CI		79.8–85.7		21.9–24.9		50.0-53.2
Females						
55–59	1,094	84.9	360	26.2	1,454	54.6
60–64	947	86.5	212	22.5	1,159	56.8
65–69	895	82.5	198	20.0	1,093	52.7
70–74	865	75.7	202	18.8	1,067	48.2
Total	3,801	82.4	972	22.2	4,773	53.1
ASR(A)		82.9		22.4		53.5
95% CI		80.0-85.9		20.9–23.9		51.9–55.1
Persons						
55–59	2,010	83.4	729	25.2	2,739	51.6
60–64	1,644	86.0	443	24.5	2,087	56.2
65–69	1,674	83.2	413	21.6	2,087	53.2
70–74	1,551	77.2	350	18.4	1,901	48.6
Total	6,879	82.5	1,935	22.7	8,814	52.3
ASR(A)		82.8		22.8		52.5
95% CI		80.8-84.8		21.8-23.9		51.4-53.6

^{1.} Respondents were defined as members of the eligible population who were sent an invitation to screen and returned a Participant Details form and/or a completed FOBT kit.

^{2.} Percentages equal the number of people involved in the Pilot Program responding to the invitation to participate in the NBCSP as a proportion of the total number of people involved in the Pilot Program who were sent an invitation to participate in the NBCSP.

^{3.} The denominator for 'Pilot participants' were those people who participated in the Pilot Program. The denominator for 'Pilot invitees' were those people invited to participate in the Pilot Program but did not participate. The denominator for 'All invitations' was the number of invitations to rescreen in the NBCSP sent to those in the Pilot Program.

^{4.} Age cohorts refer to the age of the participant as at 1 January 2003.

^{5.} ASR(A) refers to the age-standardised rate standardised to the Australian 2001 population.

Table 3.1.1d: Pilot respondents, by previous Pilot participation, Melbourne

_	Pilot partic	ipants	Pilot invi	tees	All respon	idents
•	Number	Per cent	Number	Per cent	Number	Per cent
Males						
55–59	1,283	80.9	531	20.5	1,814	43.5
60–64	1,027	83.6	319	19.9	1,346	47.5
65–69	861	79.9	272	17.9	1,133	43.6
70–74	353	92.9	56	45.2	409	81.2
Total	3,524	82.5	1,178	20.2	4,702	46.5
ASR(A)		83.8		24.8		52.2
95% CI		80.8-86.8		22.2–27.4		50.3-54.1
Females						
55–59	1,637	84.3	551	23.2	2,188	50.8
60–64	1,189	83.2	294	18.6	1,483	49.3
65–69	1,038	77.1	223	14.4	1,261	43.5
70–74	376	90.8	53	34.9	429	75.8
Total	4,240	82.7	1,121	19.8	5,361	49.7
ASR(A)		83.8		22.5		53.9
95% CI		80.8-86.8		19.9–25.1		52.0-55.8
Persons						
55–59	2,920	82.8	1,082	21.8	4,002	47.2
60–64	2,216	83.4	613	19.2	2,829	48.4
65–69	1,899	78.3	495	16.1	2,394	43.5
70–74	729	91.8	109	39.5	838	78.3
Total	7,764	82.6	2,299	20.0	10,063	48.2
ASR(A)		83.8		23.5		53.0
95% CI		81.8-85.9		21.9–25.2		51.7-54.3

• High participation for people in the 70–74 year age cohort for Melbourne was due to the alternate invitation method employed for these people.

Respondents were defined as members of the eligible population who were sent an invitation to screen and returned a Participant Details form and/or a completed FOBT kit.

^{2.} Percentages equal the number of people involved in the Pilot Program responding to the invitation to participate in the NBCSP as a proportion of the total number of people involved in the Pilot Program who were sent an invitation to participate in the NBCSP.

^{3.} The denominator for 'Pilot participants' were those people who participated in the Pilot Program. The denominator for 'Pilot invitees' were those people invited to participate in the Pilot Program but did not participate. The denominator for 'All invitations' was the number of invitations to rescreen in the NBCSP sent to those in the Pilot Program.

^{4.} Age cohorts refer to the age of the participant as at 1 January 2003.

^{5.} ASR(A) refers to the age-standardised rate standardised to the Australian 2001 population.

^{6.} Melbourne participants and invitees in the 70–74 year age cohort were provided with a pre-invitation letter. FOBT kits were only provided on request.

3.2 FOBT outcomes, Pilot Program

This section of the report covers all FOBT results that were returned to the Register as at 30 June 2008. Each person was initially sent one FOBT kit containing two samples to be completed and returned to the pathology laboratory for analysis. In some cases a person had returned more than one FOBT. In these cases all of their results were included. Results were excluded where the respondent was outside the age of 55 to 74 years as at 1 January 2003, or where the respondent opted off or suspended from the NBCSP.

Pathologists categorise returned FOBTs into three groups: correctly completed, incorrectly completed or unsatisfactory. A kit may be incorrectly completed or unsatisfactory (and thus ineligible for analysis) due to:

- the participant not completing the test correctly
- · the completed kit having expired
- a delay of more than two weeks between the taking of the two samples
- the kit having taken more than one month to arrive at the pathology laboratory.

Participants with FOBTs that were not correctly completed were requested to complete another FOBT.

FOBT results are classified by pathologists as either positive (blood is detected in either sample), negative (blood is not detected in either sample) or inconclusive (only one sample was taken, and it was negative). See tables 3.2.2a and 3.2.2b for FOBT result details. Participants with an inconclusive FOBT result are requested to complete another FOBT kit. See Appendix A for details of the screening pathway.

The classification of FOBT by return status and positivity was based only on returned kits. In analysing return status, the dependent variable was whether or not the test was correctly completed. In analysing positivity rates, only correctly completed FOBTs were included in the denominator and the dependent variable was whether or not the result was positive (tables 3.2.3a and 3.2.3b).

Table 3.2.1: Pilot FOBT completion status, all sites

		Pilot par	rticipants			Pilot in	vitees		
	FOBT c	•	FOBT not comp	-	FOBT c	orrectly leted	FOBT not comp	-	All FOBTs
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number
Males									
55–59	2,982	96.9	94	3.1	1,081	95.4	52	4.6	4,209
60–64	2,306	96.2	92	3.8	667	94.7	37	5.3	3,102
65–69	2,099	95.1	109	4.9	564	93.7	38	6.3	2,810
70–74	1,376	95.5	65	4.5	227	91.2	22	8.8	1,690
Total	8,763	96.1	360	3.9	2,539	94.5	149	5.5	11,811
ASR(A)		96.0		4.0		94.0		6.0	
95% CI		94.0– 98.1		3.6–4.4		90.1– 98.0		5.0–7.1	
Females									
55–59	3,536	96.1	145	3.9	1,048	92.5	85	7.5	4,814
60–64	2,733	95.4	132	4.6	589	91.9	52	8.1	3,506
65–69	2,427	94.1	152	5.9	479	88.1	65	11.9	3,123
70–74	1,608	93.8	107	6.2	277	88.5	36	11.5	2,028
Total	10,304	95.1	536	4.9	2,393	91.0	238	9.0	13,471
ASR(A)		95.0		5.0		90.6		9.4	
95% CI		93.2– 96.9		4.6–5.4		86.8– 94.4		8.2–10.8	
Persons									
55–59	6,518	96.5	239	3.5	2,129	94.0	137	6.0	9,023
60–64	5,039	95.7	224	4.3	1,256	93.4	89	6.6	6,608
65–69	4,526	94.5	261	5.5	1,043	91.0	103	9.0	5,933
70–74	2,984	94.6	172	5.4	504	89.7	58	10.3	3,718
Total	19,067	95.5	896	4.5	4,932	92.7	387	7.3	25,282
ASR(A)		95.5		4.5		92.3		7.7	
95% CI		94.1– 96.8		4.2–4.8		89.6– 95.1		6.9–8.6	

- There were 25,282 FOBT kits returned by 30 June 2008 of which 19,963 were from previous Pilot participants and 5,319 were from Pilot invitees who had not previously participated in bowel cancer screening.
- The majority of kits were correctly completed. The age-standardised rate of correctly completed FOBTs was higher for previous Pilot participants (95.5%) than invitees who were participating for the first time (92.3%). This difference was not statistically significant.

^{1.} FOBT refers to an entire test kit. Completion status was determined by the pathologist performing the FOBT analysis. It indicates the status of the FOBT received by the laboratory. A participant or invitee may have completed more than one FOBT kit.

^{2. &#}x27;Pilot participants' were those people who previously participated in the Pilot Program. 'Pilot invitees' were those people previously invited to participate in the Pilot Program but did not participate.

^{3.} Percentages equal the number of FOBT kits received in each status category as a proportion of the total number of FOBT kits received.

^{4.} Age cohorts refer to the age of the participant as at 1 January 2003.

^{5.} ASR(A) refers to the age-standardised rate standardised to the Australian 2001 population.

Table 3.2.2a: Pilot FOBT results, participants

	FOBT po	sitive	FOBT ne	gative	FOBT incor	clusive	All results
	Number	Per cent	Number	Per cent	Number	Per cent	Number
Males							
55–59	231	7.7	2,725	91.4	26	0.9	2,982
60–64	201	8.7	2,083	90.3	22	1.0	2,306
65–69	258	12.3	1,824	86.9	17	0.8	2,099
70–74	160	11.6	1,200	87.2	16	1.2	1,376
Total	850	9.7	7,832	89.4	81	0.9	8,763
ASR(A)		9.8		89.3		0.9	
95% CI		9.1–10.5		87.3–91.3		0.7–1.2	
Females							
55–59	223	6.3	3,297	93.2	16	0.5	3,536
60–64	193	7.1	2,509	91.8	31	1.1	2,733
65–69	234	9.6	2,168	89.3	25	1.0	2,427
70–74	165	10.3	1,427	88.7	16	1.0	1,608
Total	815	7.9	9,401	91.2	88	0.9	10,304
ASR(A)		8.0		91.1		0.9	
95% CI		7.4–8.7	į į	89.1–93.1		0.7–1.1	
Persons							
55–59	454	7.0	6,022	92.4	42	0.6	6,518
60–64	394	7.8	4,592	91.1	53	1.1	5,039
65–69	492	10.9	3,992	88.2	42	0.9	4,526
70–74	325	10.9	2,627	88.0	32	1.1	2,984
Total	1,665	8.7	17,233	90.4	169	0.9	19,067
ASR(A)		8.8		90.3		0.9	
95% CI		8.4-9.3		88.9–91.6		0.8-1.0	

- There were 19,067 correctly completed FOBTs recorded for the period 7 August 2006 to 30 June 2008 for previous Pilot participants. Of these, 1,665 (8.7%) were positive and 169 (0.9%) were inconclusive.
- The age-standardised rate of positive FOBT results was 9.8% for males. This was significantly higher than the age-standardised rate of 8.0% for females and was consistent with higher incidence of bowel cancer in males than females.
- The proportion of FOBT positive results increased with age. The proportion was lowest in the 55–59 year age cohort (7.0%) and highest for people in the 65–69 and 70–74 year age cohorts (10.9%).

Percentages equal the number of FOBT results in each category in terms of 'positive', 'negative' and 'inconclusive' as a proportion of the total number of correctly completed FOBTs.

^{2.} Age cohorts refer to the participant's age as at 1 January 2003.

^{3.} ASR(A) refers to the age-standardised rate standardised to the Australian 2001 population.

Table 3.2.2b: Pilot FOBT results, invitees

	FOBT po	sitive	FOBT ne	gative	FOBT incor	nclusive	All results
•	Number	Per cent	Number	Per cent	Number	Per cent	Number
Males							
55–59	119	11.0	948	87.7	14	1.3	1,081
60–64	82	12.3	579	86.8	6	0.9	667
65–69	88	15.6	469	83.2	7	1.2	564
70–74	33	14.5	193	85.0	1	0.4	227
Total	322	12.7	2,189	86.2	28	1.1	2,539
ASR(A)		13.1		85.9		1.0	
95% CI		11.5–14.7		82.1-89.9		0.7–1.5	
Females							
55–59	79	7.5	963	91.9	6	0.6	1,048
60–64	45	7.6	541	91.9	3	0.5	589
65–69	67	14.0	405	84.6	7	1.5	479
70–74	36	13.0	239	86.3	2	0.7	277
Total	227	9.5	2,148	89.8	18	0.8	2,393
ASR(A)		10.1		89.2		0.8	
95% CI		8.6–11.7		85.3-93.1		0.4–1.3	
Persons							
55–59	198	9.3	1,911	89.8	20	0.9	2,129
60–64	127	10.1	1,120	89.2	9	0.7	1,256
65–69	155	14.9	874	83.8	14	1.3	1,043
70–74	69	13.7	432	85.7	3	0.6	504
Total	549	11.1	4,337	87.9	46	0.9	4,932
ASR(A)		11.6		87.5		0.9	
95% CI		10.6–12.7		84.8-90.3		0.6-1.2	

- There were 4,932 correctly completed FOBTs recorded for the period 7 August 2006 to 30 June 2008 for previous Pilot invitees. Of these, 549 (11.1%) were positive and 46 (0.9%) were inconclusive.
- The age-standardised positivity rate was 13.1% for males and 10.1% for females, though this difference was not statistically significant.
- The proportion of positive FOBT results increased with age; this is consistent with trends in bowel cancer incidence. The lowest proportion was in the 55–59 year age cohort (9.3%) and highest for people in the 65–69 year age cohort (14.9%).

Percentages equal the number of FOBT results in each category in terms of 'positive', 'negative' and 'inconclusive' as a proportion of the total number of correctly completed FOBTs.

^{2.} Age cohorts refer to the participant's age as at 1 January 2003.

^{3.} ASR(A) refers to the age-standardised rate standardised to the Australian 2001 population.

Table 3.2.3a: Pilot FOBT positivity proportions, participants

	Number of positive results	Per cent	Total number of valid results
Males			
55–59	231	7.8	2,956
60–64	201	8.8	2,284
65–69	258	12.4	2,082
70–74	160	11.8	1,360
Total	850	9.8	8,682
ASR(A)		9.9	
95% CI		9.2-10.6	
Females			
55–59	223	6.3	3,520
60–64	193	7.1	2,702
65–69	234	9.7	2,402
70–74	165	10.4	1,592
Total	815	8.0	10,216
ASR(A)		8.1	
95% CI		7.4–8.8	
Persons			
55–59	454	7.0	6,476
60–64	394	7.9	4,986
65–69	492	11.0	4,484
70–74	325	11.0	2,952
Total	1,665	8.8	18,898
ASR(A)		8.9	
95% CI		8.5-9.4	

- The overall age-standardised positivity rate for Pilot participants was 8.9%. The lowest proportion of positive FOBT results was in the 55–59 year age cohort (7.0%) and the highest was in the 65–69 and 70–74 year age cohorts (11.0%).
- The age-standardised positivity rate was 9.9% for males which was significantly higher than that for females (8.1%).

Percentages equal the number of FOBT positive results as a proportion of the total number of valid results.

^{2.} A valid result was either positive or negative; inconclusive results were excluded.

^{3.} Age cohorts refer to the participant's age as at 1 January 2003.

^{4.} ASR(A) refers to the age-standardised rate standardised to the Australian 2001 population.

Table 3.2.3b: Pilot FOBT positivity rates, invitees

	Number of positive results	Per cent	Total number of valid results
Males			
55–59	119	11.2	1,067
60–64	82	12.4	661
65–69	88	15.8	557
70–74	33	14.6	226
Total	322	12.8	2,511
ASR(A)		13.2	
95% CI		11.7–14.8	
Females			
55–59	79	7.6	1,042
60–64	45	7.7	586
65–69	67	14.2	472
70–74	36	13.1	275
Total	227	9.6	2,375
ASR(A)		10.2	
95% CI		8.6–11.8	
Persons			
55–59	198	9.4	2,109
60–64	127	10.2	1,247
65–69	155	15.1	1,029
70–74	69	13.8	501
Total	549	11.2	4,886
ASR(A)		11.7	
95% CI		10.7–12.8	

- The overall age-standardised positivity rate for Pilot invitees was 11.7%. The lowest proportion of positive FOBT results was in the 55–59 year age cohort (9.4%) and the highest was in the 65–69 year age cohort (15.1%).
- The age-standardised positivity rate for males was 13.2% compared with 10.2% for females. This difference was not statistically significant.
- The age-standardised positivity rate of Pilot invitees who underwent initial screening (11.7%) was significantly higher than the age-standardised rate of 8.9% for Pilot participants (Table 3.2.3a).

Percentages equal the number of FOBT positive results as a proportion of the total number of valid results.

^{2.} A valid result was either positive or negative; inconclusive results were excluded.

^{3.} Age cohorts refer to the participant's age as at 1 January 2003.

^{4.} ASR(A) refers to the age-standardised rate standardised to the Australian 2001 population.

3.3 Primary health care practitioner visits, Pilot Program

Only primary health care practitioner consultations recorded in the Register at 30 June 2008 were included in this section.

Table 3.3.1: Primary health care practitioner consultations recorded following a positive FOBT result, by Pilot site

	Мас	kay	Adela	aide	Melbo	urne	All	sites
·	Number	Per cent						
Males								
55–59	53	64.6	49	48.0	103	62.0	205	58.6
60–64	44	78.6	35	42.7	85	58.6	164	58.0
65–69	65	77.4	69	55.2	79	57.7	213	61.6
70–74	36	81.8	46	50.5	32	55.2	114	59.1
Total	198	74.4	199	49.8	299	59.1	696	59.4
ASR(A)		74.5		48.7		58.8		59.2
95% CI		64.2-85.9		42.0-56.2		52.1-66.1		54.8-63.8
Females								
55–59	49	81.7	47	58.8	95	58.6	191	63.2
60–64	33	71.7	43	56.6	75	64.7	151	63.4
65–69	38	80.9	62	60.8	96	63.2	196	65.1
70–74	36	80.0	63	55.3	23	54.8	122	60.7
Total	156	78.8	215	57.8	289	61.2	660	63.3
ASR(A)		78.6		57.9		60.4		63.2
95% CI		68.3-90.1		51.2-65.4		53.7–67.7		58.8-67.8
Persons								
55–59	102	71.8	96	52.7	198	60.4	396	60.7
60–64	77	75.5	78	49.4	160	61.3	315	60.5
65–69	103	78.6	131	57.7	175	60.6	409	63.2
70–74	72	80.9	109	53.2	55	55.0	236	59.9
Total	354	76.3	414	53.6	588	60.1	1,356	61.2
ASR(A)		76.1		53.0		59.6		61.0
95% CI		68.3-84.6		47.8-58.6		54.6-64.9		57.8-64.4

- There were 1,356 primary health care practitioner consultations following a positive FOBT result recorded by the Register for the period 7 August 2006 to 30 June 2008.
- Age-standardised primary health care practitioner consultations reported were significantly higher for Mackay (76.1%) than for Adelaide (53.0%) and Melbourne (59.6%).

Percentages equal the number of primary health care practitioner consultations recorded following a positive FOBT as a proportion of the total number of positive FOBT results.

^{2.} Age cohorts refer to the participant's age as at 1 January 2003.

^{3.} ASR(A) refers to the age-standardised rate standardised to the Australian 2001 population.

Table 3.3.2: Referrals for colonoscopy or other examination following a positive FOBT result

	Referral for o	colonoscopy	Referral f examir		No re	ferral	All recorded GP visits
	Number	Per cent	Number	Per cent	Number	Per cent	Number
Males							
55–59	178	86.8	9	4.4	18	8.8	205
60–64	143	87.2	12	7.3	9	5.5	164
65–69	180	84.5	6	2.8	27	12.7	213
70–74	91	79.8	7	6.1	16	14.0	114
Total	592	85.1	34	4.9	70	10.1	696
ASR(A)		85.0		5.2		9.8	
95% CI		78.2–92.3		3.6–7.2		7.6–12.5	
Females							
55–59	175	91.6	3	1.6	13	6.8	191
60–64	131	86.8	4	2.6	16	10.6	151
65–69	164	83.7	7	3.6	25	12.8	196
70–74	101	82.8	10	8.2	11	9.0	122
Total	571	86.5	24	3.6	65	9.8	660
ASR(A)		86.8		3.6		9.5	
95% CI		80.0-94.1		2.0-5.8		7.3–12.2	
Persons							
55–59	353	89.1	12	3.0	31	7.8	396
60–64	274	87.0	16	5.1	25	7.9	315
65–69	344	84.1	13	3.2	52	12.7	409
70–74	192	81.4	17	7.2	27	11.4	236
Total	1,163	85.8	58	4.3	135	10.0	1,356
ASR(A)		85.9		4.4		9.6	
95% CI		81.0-91.1		3.4-5.8		8.1–11.5	

• Of the 1,356 primary health care practitioner consultations recorded following a positive FOBT result, 1,163 (85.8%) resulted in referral for colonoscopy, 58 (4.3%) in referral for other examination and 135 (10.0%) in no referral. Reasons for non-referral for colonoscopy by a primary health care practitioner may include previous diagnosis of bowel cancer; limited life expectancy of the patient; the patient having had a colonoscopy within the previous 18 months; patient declining a colonoscopy; or patient having significant co-morbidity or other medical conditions precluding them from undergoing a colonoscopy.

Percentages equal the number of consultations following a positive FOBT who received/did not receive a referral for either colonoscopy or other examination as a proportion of the total number of consultations recorded following a positive FOBT result.

^{2.} Age cohorts refer to the participant's age as at 1 January 2003.

^{3.} ASR(A) refers to the age-standardised rate standardised to the Australian 2001 population.

3.4 Colonoscopy, Pilot Program

Only Colonoscopy Report forms recorded in the Register at 30 June 2008 were included in this analysis.

Table 3.4.1: Colonoscopies recorded following a positive FOBT result, by Pilot site

	Мас	ckay	Ade	laide	Melbo	urne	All sites	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Males								
55–59	53	64.6	74	72.5	125	75.3	252	72.0
60–64	37	66.1	64	78.0	95	65.5	196	69.3
65–69	46	54.8	94	75.2	98	71.5	238	68.8
70–74	25	56.8	66	72.5	43	74.1	134	69.4
Total	161	60.5	298	74.5	361	71.3	820	70.0
ASR(A)		61.3		74.6		71.7		70.1
95% CI		52.0-71.8		66.1–83.8		64.2-79.8		65.3–75.1
Females								
55–59	38	63.3	71	88.8	125	77.2	234	77.5
60–64	24	52.2	63	82.9	79	68.1	166	69.7
65–69	32	68.1	74	72.5	105	69.1	211	70.1
70–74	21	46.7	78	68.4	34	81.0	133	66.2
Total	115	58.1	286	76.9	343	72.7	744	71.4
ASR(A)		58.1		79.6		73.8		71.6
95% CI		48.8–68.7		71.1–88.9		66.3–81.9		66.8–76.6
Persons								
55–59	91	64.1	145	79.7	250	76.2	486	74.5
60–64	61	59.8	127	80.4	174	66.7	362	69.5
65–69	78	59.5	168	74.0	203	70.2	449	69.4
70–74	46	51.7	144	70.2	77	77.0	267	67.8
Total	276	59.5	584	75.6	704	72.0	1,564	70.6
ASR(A)		59.5		76.7		72.6		70.7
95% CI		52.6-67.0		70.4-83.5		67.0-78.5		67.2–74.4

Percentages of colonoscopy follow-up equal the number of colonoscopies recorded following a positive FOBT as a proportion of the total number of positive FOBT results.

^{2.} Age cohorts refer to the participant's age as at 1 January 2003.

^{3.} ASR(A) refers to the age-standardised rate standardised to the Australian 2001 population.

^{4.} Melbourne commenced the screening program for Pilot participants and invitees on 14 May 2007.

[•] There were 1,564 colonoscopies recorded following a positive FOBT result between 7 August 2006 and 30 June 2008 as part of the Pilot Program. This represented 59.5% of the number of positive FOBT results recorded for Mackay, 75.6% for Adelaide and 72.0% for Melbourne.

3.5 Overall outcomes, Pilot Program

This section presents the overall outcomes from the Pilot Program as at 30 June 2008 at a participant level, based on people who returned a positive FOBT result and who proceeded to colonoscopy. This section differs from the previous sections that covered FOBT, consultation and colonoscopy-level data.

Outcomes at key pathway points for the Pilot Program are summarised in Figure 3.5.1. Current screening outcomes for all people invited to participate in the Pilot Program are tabulated by Pilot site in Table 3.5.1 and by previous Pilot participation in Table 3.5.2.

For participants who returned more than one FOBT, the results were counted according to the following order of precedence: a positive result was selected over any other result, and a negative result was selected over an inconclusive result.

A person who has had a colonoscopy was classified as having confirmed cancer, suspected cancer, adenoma or neither cancer nor adenoma. For those people with more than one polyp or cancer found at colonoscopy the most serious result was counted.

Data for colonoscopy outcomes were derived from information recorded on both the Colonoscopy Report form and the Histopathology Report form. As reporting by clinicians to the NBCSP is not mandatory, a person may have a Colonoscopy Report form, a Histopathology Report form or both recorded in the Register. Outcomes are classified as follows:

- Confirmed cancers were those cancers confirmed by histopathology with or without a
 corresponding Colonoscopy Report form. Confirmed cancers are given a higher priority
 than suspected cancer.
- Suspected cancers were abnormalities detected at colonoscopy that the colonoscopist suspects to be cancer but are not yet confirmed by histopathology.
- Where a person had a confirmed or suspected cancer, this was given higher priority than adenomas. Adenoma classifications are described in Appendix B.
- Polyps awaiting histopathology were those people with polyps detected at colonoscopy
 that had not yet had an associated Histopathology Report form recorded. It is possible
 that some of these may be found to be adenomas or cancers. Therefore, final outcome
 data for all colonoscopies is not possible until all tests awaiting histopathology have been
 completed and recorded.
- Participants recorded as having no cancer or adenoma were those that had no polyps or suspected cancers detected at colonoscopy, or had polyps detected at colonoscopy that were classified as non-adenomous by histopathology.

Tables 3.5.1 and 3.5.2 are interim tables only, as virtually all cancers must be ultimately confirmed by pathology. Due to time lags in the screening pathway, and lack of final outcome data, positive predictive values cannot be calculated. Data presented in Table 3.5.1 may be affected by the late commencement of the Pilot Program in Melbourne, and therefore should be interpreted with caution.

Summary

- There were 50,106 invitations to screen in the NBCSP sent to people involved in the Pilot Program, 28 of which were ineligible due to being sent to people outside the target age. Of the eligible invitations, 2,054 people opted off or suspended participation in the NBCSP for various reasons, including having been previously diagnosed with bowel cancer.
- Of the 24,006 invitations sent to eligible Pilot participants, 19,053 (79.4%) participated by returning a completed FOBT by 30 June 2008. However, only 5,026 (20.9%) of the 24,018 eligible Pilot invitees agreed to participate.
- Of those participants who returned FOBT kits, 8.7% had a positive result, whereas 10.9% of those invitees who returned FOBT kits had a positive result.
- Colonoscopies were recorded in the Register for 78.4% of Pilot participants and 75.8% of Pilot invitees with a positive FOBT result. This difference was not statistically significant.
- Of the 1,554 people with positive FOBT results who underwent a colonoscopy and had outcome results recorded in the Register, there were 4 confirmed cancers, 104 suspected cancers and 239 confirmed adenomas. Although the proportion of suspected or confirmed cancers detected was higher in invitees (9.6%) than participants (6.1%), this result was not statistically significant (Figure 3.5.1).

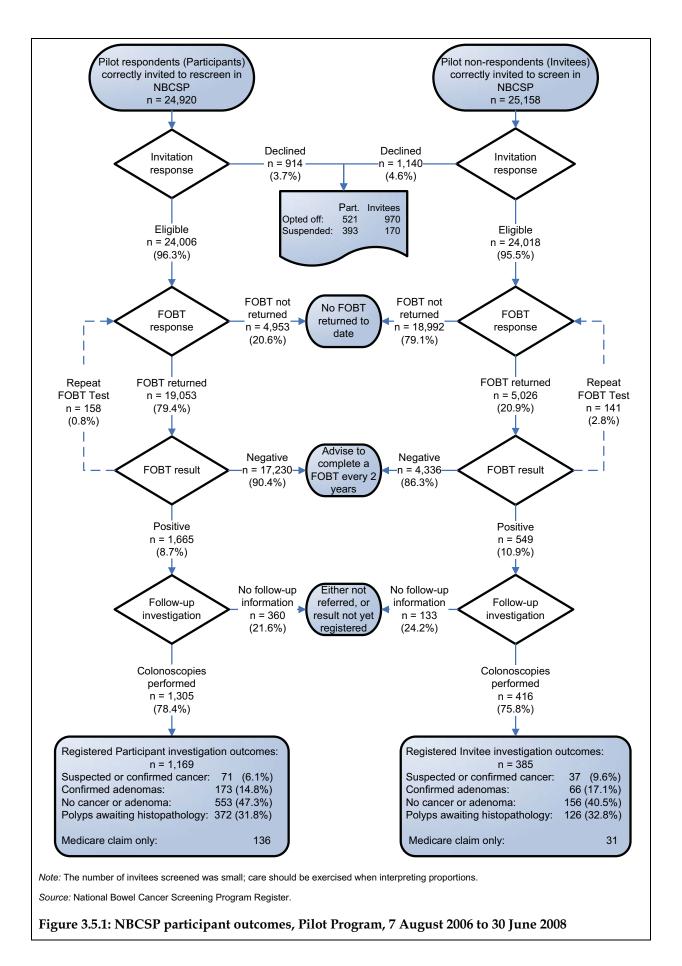


Table 3.5.1: Preliminary overall participant summary outcomes, by Pilot site, Pilot Program, 7 August 2006 to 30 June 2008

				!			Colonoscop	Colonoscopy outcomes			
Site	Invitations issued ^(a)	Number screened ^(b)	Total positive FOBT	Colonoscopies with outcome data registered	No cancer or adenoma ^(c)	Polyps awaiting histo- pathology ^(d)	Confirmed diminutive adenoma ^(e)	Confirmed small adenoma ^(e)	Confirmed advanced adenoma ^(e)	Suspected cancer ⁽¹⁾	Confirmed cancer ⁽⁹⁾
Mackay	10,263	5,301	464	276	109	62	15	19	69	10	2
Adelaide	16,862	8,755	772	586	258	229	18	18	28	35	0
Melbourne	20,899	10,023	978	692	342	207	14	23	45	29	2
All sites	48,024	24,079	2,214	1,554	402	498	47	09	132	104	4
(a) 'Invitation	s issued' equals t	the number of elig	ible people who	(a) 'Invitations issued' equals the number of eligible people who were issued an invitation to screen in the NBCSP.	tion to screen in	the NBCSP.					
(b) 'Number	screened' equals	the number of pec	ople who comp	(b) 'Number screened' equals the number of people who completed an FOBT kit and had results forwarded to the Register.	had results forwa	arded to the Registe	ď				

No cancers were suspected at colonoscopy or confirmed non-cancerous by histopathology; no polyps identified at colonoscopy, or polyps confirmed as non-adenomous at histopathology.

Polyps detected at colonoscopy and sent to histopathology for analysis. No Histopathology Report received by Register.

(e) (c) (c)

Confirmed adenoma figures were based on a combination of the Colonoscopy and Histopathology Report forms for a person received by the Register.

Cancer suspected at colonoscopy but not yet confirmed by histopathology.

Cancer confirmed by histopathology.

Note: The Pilot Program commenced in Melbourne on 14 May 2007.

- There were 48,024 invitations to screen in the NBCSP issued to eligible people previously invited to participate in the Pilot Program. Of these 10,263 were to people from Mackay, 16,862 to people from Adelaide and 20,899 to people from Melbourne.
- As the screening program for Pilot participants and invitees in Melbourne commenced in May 2007, people from this Pilot site may not be as advanced on the screening pathway as people from Mackay and Adelaide.

Table 3.5.2: Preliminary overall participant summary outcomes by previous Pilot participation status, Pilot Program, 7 August 2006 to 30 June 2008

							Colonosco	Colonoscopy outcomes			
Status	Invitations issued ^(a)	Number screened ^(b)	Total positive FOBT	Colonoscopies with outcome data registered	No cancer or adenoma ^(c)	Polyps awaiting histo- pathology ^(d)	Confirmed diminutive adenoma ^(e)	Confirmed small adenoma ^(e)	Confirmed advanced adenoma ^(e)	Suspected Confirmed cancer ^(f) cancer ^(g)	Confirmed cancer ^(g)
Participant ^(h)	24,006	19,053	1,665	1,169	553	372	38	46	89	20	_
Invitee ⁽ⁱ⁾	24,018	5,026	549	385	156	126	6	14	43	34	က
Total	48,024	24,079	2,214	1,554	200	498	47	09	132	104	4
(a) 'Invitatio	ns issued' equals t	he number of elig	lible people who	(a) 'Invitations issued' equals the number of eligible people who were issued an invitation to screen in the NBCSP.	tion to screen in t	the NBCSP.					
(p) 'Number	screened' equals	the number of pe	ople who comp	(b) 'Number screened' equals the number of people who completed an FOBT kit and had results forwarded to the Register.	had results forwa	ırded to the Register					

No cancers were suspected at colonoscopy or confirmed non-cancerous by histopathology; no polyps identified at colonoscopy, or polyps confirmed as non-adenomous at histopathology.

Polyps detected at colonoscopy and sent to histopathology for analysis. No Histopathology Report received by Register. © © Confirmed adenoma figures were based on a combination of the Colonoscopy and Histopathology Report forms for a person received by the Register.

Cancer suspected at colonoscopy but not yet confirmed by histopathology. (e)

Cancer confirmed by histopathology.

Participant' refers to participants in the Pilot Program who were invited to rescreen in the NBCSP

Invitee' refers to invitees from the Pilot Program who did not participate, and were re-invited to screen in the NBCSP

- There were 19,053 participants from the Pilot Program who rescreened in the NBCSP between 7 August 2006 and 30 June 2008 compared with 5,026 invitees from the Pilot Program who underwent initial screening.
- Positive FOBT results were returned for 8.7% of Pilot participants who rescreened in the NBCSP compared with 10.9% for Pilot invitees who underwent initial screening.
- There were 71 previous Pilot participants with suspected or confirmed cancer, representing 6.1% of those people who have had a positive FOBT result investigated by colonoscopy. There were 37 Pilot invitees who underwent initial screening that had suspected or confirmed cancer, representing 9.6% of the positive FOBT results for invitees investigated by colonoscopy.