

2 National Program

2.1 Participation

Numbers and rates of participation

The NBCSP commenced on 7 August 2006 in Queensland, 14 August 2006 in New South Wales and 11 September 2006 in the Australian Capital Territory. South Australia, Victoria and Western Australia commenced the NBCSP in late January 2007. The Northern Territory commenced in early March 2007 and Tasmania commenced in early April. This means that people in the Northern Territory and Tasmania have had less time to respond between the start of the NBCSP and this report. Therefore analysis of participation cannot be compared between states.

The participation rates (Table 2.1.1b) also represent an under-estimate of the true screening participation rate. This is because of the lag in response time. This under-estimation does not affect comparisons between rates for different groups, but it does mean that the absolute levels of participation are likely to be understated.

An alternative approach is to follow each individual and, for those who respond, to record the time it takes them to respond. This allows the calculation of a response rate over time from the date of invitation. The response rates were calculated using the Kaplan-Meier methods. These are standard statistical methods used to model the time to an event and the changes in the rates of an event over time. In this case, the event is a person's response (either by returning a completed FOBT kit or Participant Details form) and the time to the event is measured in weeks from the date the invitation was sent. These Kaplan-Meier estimates represent valid estimates of the true participation rates. See Appendix C for a more detailed description of the statistical methods used. Figure 2.1.1 presents the proportion of individuals who respond by time (in weeks) following their invitation calculated using the Kaplan-Meier estimates. Table 2.1.1c presents the corresponding 95% confidence intervals at 16 weeks.

People who did not turn 55 or 65 between 1 May 2006 and 30 June 2008 and who were mistakenly invited are excluded from the eligible population. The excluded invitations included 176 people with age either unknown or outside the eligible ages of 55 or 65 years and 5 people with either state unknown or residence outside Australia. Of those correctly invited there were 7,272 people who opted off the National Program after receiving an invitation to screen and 3,508 who suspended participation in the National Program. These people were excluded from any analyses. Invitations sent to Pilot participants and invitees are also excluded from the National Program data (see Chapter 3 for analyses of the Pilot Program).

Table 2.1.1a: Screening invitation, by age, sex and state and territory

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Unknown/ missing	Australia
A. Invitations issued										
55 years	108,975	69,958	42,629	23,121	12,759	4,390	5,578	1,671	5	269,086
65 years	74,238	46,574	27,838	14,165	8,248	2,942	3,102	745	0	177,852
Other	60	65	28	8	6	5	1	3	0	176
Total	183,273	116,597	70,495	37,294	21,013	7,337	8,681	2,419	5	447,114
B. Eligible invitations										
Males										
55 years	53,774	34,303	21,054	11,466	6,253	2,143	2,648	884	..	132,525
65 years	36,075	22,620	13,883	6,966	3,922	1,411	1,504	435	..	86,816
Total	89,849	56,923	34,937	18,432	10,175	3,554	4,152	1,319	..	219,341
Females										
55 years	53,266	34,483	20,923	11,283	6,325	2,181	2,841	768	..	132,070
65 years	35,372	22,333	13,060	6,720	4,038	1,444	1,479	296	..	84,742
Total	88,638	56,816	33,983	18,003	10,363	3,625	4,320	1,064	..	216,812
Persons										
55 years	107,040	68,786	41,977	22,749	12,578	4,324	5,489	1,652	..	264,595
65 years	71,447	44,953	26,943	13,686	7,960	2,855	2,983	731	..	171,558
Total	178,487	113,739	68,920	36,435	20,538	7,179	8,472	2,383	..	436,153
C. Persons suspended										
55 years	692	408	216	121	69	26	36	7	0	1,575
65 years	876	449	283	147	103	27	45	3	0	1,933
Total	1,568	857	499	268	172	53	81	10	0	3,508
D. Persons opting off										
55 years	1,243	764	436	251	112	40	53	12	0	2,911
65 years	1,915	1,172	612	332	185	60	74	11	0	4,361
Total	3,158	1,936	1,048	583	297	100	127	23	0	7,272

Note: Invitations to screen are issued to all members of the populations turning 55 or 65 between 1 May 2006 and 30 June 2008. Other eligibility criteria are not assessed until further in the screening pathway.

- There were 447,114 invitations sent out by 31 July 2007 of which 176 were mistakenly sent to people outside the target ages, 5 to people with state unknown or residence outside Australia.
- There were 3,508 respondents (0.8%) who suspended participation in the National Program. A further 7,272 respondents (1.6%) declined to participate by opting off the National Program.
- A total of 436,153 invitations were sent to people eligible to participate in screening.

Table 2.1.1b: People who agreed to participate in the NBCSP, by age, sex and state and territory

		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Males										
55 years	Number	15,911	9,987	4,959	3,324	1,480	498	876	153	37,188
	Per cent	29.6	29.1	23.6	29.0	23.7	23.2	33.1	17.3	28.1
65 years	Number	13,978	8,217	4,171	2,460	1,249	412	614	106	31,207
	Per cent	38.7	36.3	30.0	35.3	31.8	29.2	40.8	24.4	35.9
Total	Number	29,889	18,204	9,130	5,784	2,729	910	1,490	259	68,395
	Per cent	33.3	32.0	26.1	31.4	26.8	25.6	35.9	19.6	31.2
Females										
55 years	Number	19,987	12,672	6,327	4,127	1,876	657	1,106	159	46,911
	Per cent	37.5	36.7	30.2	36.6	29.7	30.1	38.9	20.7	35.5
65 years	Number	15,180	8,892	4,589	2,691	1,368	479	689	68	33,956
	Per cent	42.9	39.8	35.1	40.0	33.9	33.2	46.6	23.0	40.1
Total	Number	35,167	21,564	10,916	6,818	3,244	1,136	1,795	227	80,867
	Per cent	39.7	38.0	32.1	37.9	31.3	31.3	41.6	21.3	37.3
Persons										
55 years	Number	35,898	22,659	11,286	7,451	3,356	1,155	1,982	312	84,099
	Per cent	33.5	32.9	26.9	32.8	26.7	26.7	36.1	18.9	31.8
65 years	Number	29,158	17,109	8,760	5,151	2,617	891	1,303	174	65,163
	Per cent	40.8	38.1	32.5	37.6	32.9	31.2	43.7	23.8	38.0
Total	Number	65,056	39,768	20,046	12,602	5,973	2,046	3,285	486	149,262
	Per cent	36.4	35.0	29.1	34.6	29.1	28.5	38.8	20.4	34.2

Notes

1. Participants in the Program are defined as members of the eligible population who were sent an invitation to screen and who returned a Participant Details form and/or a completed FOBT kit.
2. Percentages are people responding as a proportion of the total number of the eligible population who were sent an invitation to screen. This excludes people who suspended or opted off the National Program.

- As at 31 July 2007, there were 149,262 eligible invitees (34.2%) who responded by returning a completed Participant Details form or completed FOBT kit.
- The Northern Territory commenced the Program in March 2007 and Tasmania in April 2007. Therefore invitees have had less time to respond to the invitation than other jurisdictions and hence have lower participation rates as at 31 July 2007.
- The Australian Capital Territory had the highest crude participation rate of 38.8%, followed by New South Wales (36.4%), Victoria (35.0%) and Western Australia (34.6%).
- Participation rates were higher for females than males in all states and territories. Overall, 37.3% of females accepted the invitation to screen compared with 31.2% of males.
- For both sexes, participation rates were higher for those aged 65 years (35.9% of males, 40.1% of females) than for those aged 55 years (28.1% of males, 35.5% of females). Overall, 38.0% of people aged 65 years participated compared with 31.8% of people aged 55 years.

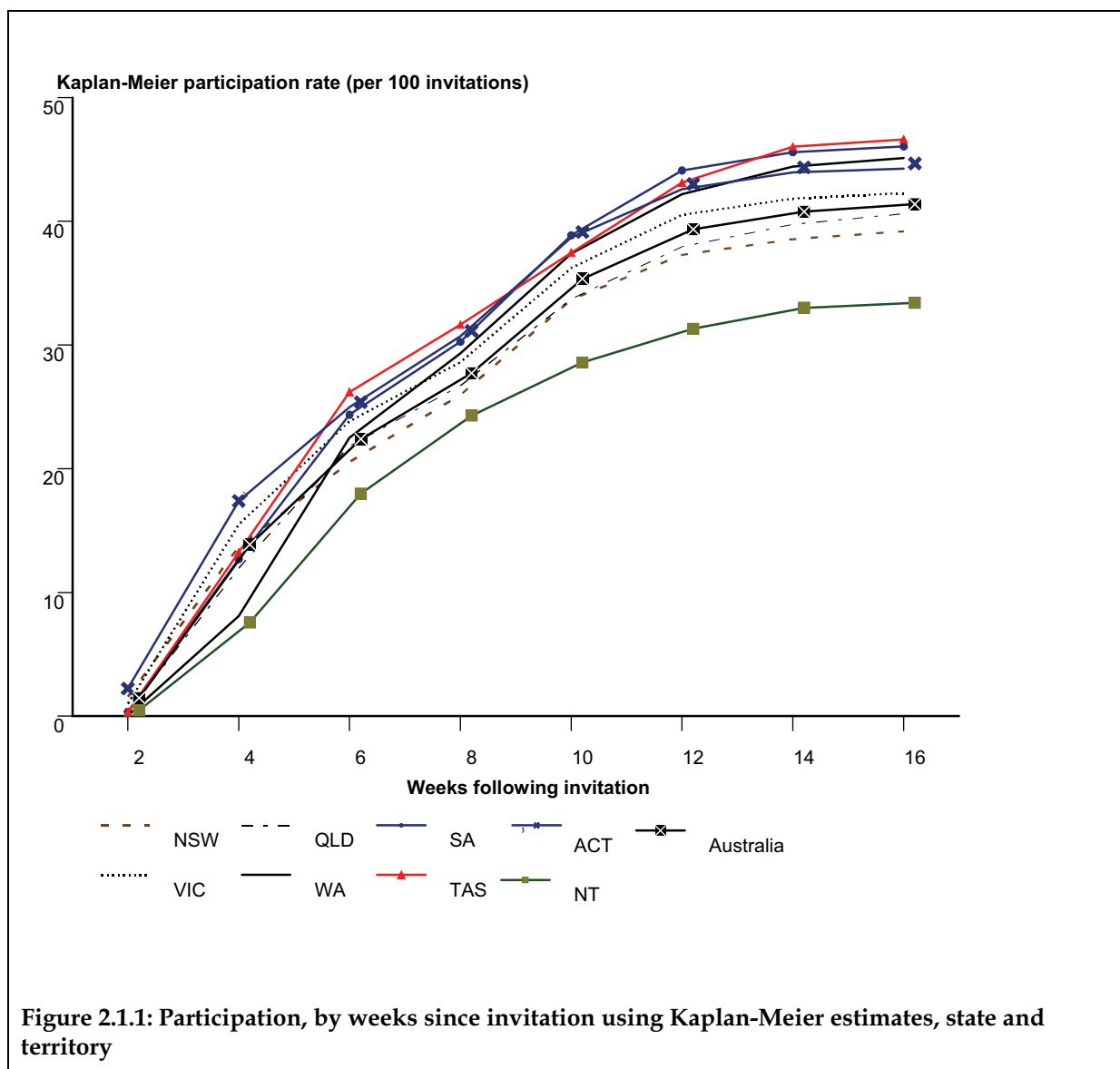


Table 2.1.1c: Kaplan-Meier participation rates at 16 weeks since invitation, by state and territory

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Rate (per 100 invitations)	39.2	42.3	40.6	45.1	46.1	46.6	44.3	33.0	41.0
95% CI	38.9–39.4	42.0–42.6	40.1–41.1	44.5–45.7	45.1–47.0	44.9–48.3	43.1–45.4	30.3–35.7	40.8–41.1

Table 2.1.1c provides estimates of FOBT participation at 16 weeks, which is the longest period for which all states and territories have contributed data. Later reports will use a greater time frame as more weeks of data become available.

- There was a rise in participation in most states in the first 4 weeks after invitation which then tapered off. Participation rose again after 8 weeks and began to plateau at about 14 weeks from the first invitation.

- Tasmania (46.6%), South Australia (46.1%), Western Australia (45.1%) and the Australian Capital Territory (44.3%) had significantly higher participation rates at 16 weeks than the other states and territories and the national rate of 41.0%.

Participation by geographic location

Geographic location was classified according to the Australian Bureau of Statistics (ABS) Australian Standard Geographical Classification (ASGC) (see Appendix B). Residential address postcodes are mapped to Statistical Local Areas (SLAs) in 2001 and then classified to five categories ranging from major cities to very remote areas. As some postcodes can span different remoteness areas a weighting is attributed to the postcode. There were 631 invitees with postcodes which were not valid in 2001 and are excluded.

Table 2.1.2: People responding to the screening invitation, by age, sex and geographic location

		Major cities	Inner regional	Outer regional	Remote	Very remote	Total
Males							
55 years	Number	25,680	8,151	3,082	189	35	37,136
	Per cent	27.9	29.8	26.9	18.0	12.0	28.1
65 years	Number	20,341	7,731	2,893	172	28	31,165
	Per cent	35.4	38.6	35.0	24.7	13.7	36.0
Total	Number	46,020	15,882	5,975	360	64	68,301
	Per cent	30.7	33.5	30.3	20.7	12.7	31.2
Females							
55 years	Number	32,406	10,402	3,778	222	38	46,846
	Per cent	34.9	38.1	36.2	24.7	15.1	35.5
65 years	Number	22,155	8,449	3,094	193	28	33,918
	Per cent	39.0	43.2	40.8	31.3	18.1	40.1
Total	Number	54,561	18,851	6,872	414	66	80,764
	Per cent	36.4	40.2	38.1	27.4	16.2	37.3
Persons							
55 years	Number	58,086	18,552	6,860	410	74	83,982
	Per cent	31.4	33.9	31.3	21.1	13.4	31.8
65 years	Number	42,495	16,180	5,987	364	56	65,083
	Per cent	37.2	40.9	37.8	27.8	15.5	38.0
Total	Number	100,581	34,732	12,847	775	130	149,065
	Per cent	33.6	36.9	34.1	23.8	14.2	34.2

Notes

1. States and territories using the geographic rollout schedule may not have commenced screening in some geographic areas at 31 July 2007. Figures for geographic regions should be interpreted with caution.
2. There were 197 respondents and 631 invitations with postcodes that do not correspond with the 2001 ABS remoteness classifications by postal area. These are regarded as missing data and are excluded from this table, so the sum of the regions may be less than the national total.
3. Percentages are the number of people responding as a proportion of the total number of the eligible population who were sent an invitation to screen.
4. Respondents to the screening invitation are defined as members of the eligible population who were sent an invitation to screen and who returned a Participant Details form and/or a completed FOBT kit.

- Response rates to 31 July 2007 were lower in remote and very remote areas compared with major cities and inner regional and outer regional areas. This was due, in part, to screening having not yet commenced in a number of remote areas by those states using geographic rollout.

Participation by socioeconomic status

A participant's socioeconomic status is classified using the participant's residential postcode according to the ABS Index of Relative Socioeconomic Disadvantage (IRSD). Table 2.1.3 shows the distribution of respondents by quintile of the IRSD index where quintile 1 represents the least disadvantaged 20% of the population and quintile 5 the most disadvantaged 20%.

Table 2.1.3: People responding to the screening invitation, by age, sex and socioeconomic status

		1st quintile (least disadvantaged)	2nd quintile	3rd quintile	4th quintile	5th quintile (most disadvantaged)	Total
Males							
55 years	Number	8,919	7,719	7,189	6,857	6,094	36,778
	Per cent	29.6	28.9	28.1	27.9	25.6	28.1
65 years	Number	7,177	5,910	6,191	6,261	5,373	30,912
	Per cent	38.4	36.4	35.9	36.4	32.6	36.0
Total	Number	16,096	13,629	13,380	13,118	11,467	67,690
	Per cent	33.0	31.7	31.2	31.4	28.4	31.2
Females							
55 years	Number	11,362	9,580	9,347	8,570	7,594	46,453
	Per cent	37.1	36.2	35.9	35.6	32.4	35.6
65 years	Number	7,766	6,379	6,850	6,900	5,804	33,699
	Per cent	42.6	40.6	40.7	41.2	35.3	40.1
Total	Number	19,128	15,959	16,197	15,470	13,398	80,152
	Per cent	39.2	37.8	37.8	37.9	33.6	37.4
Persons							
55 years	Number	20,281	17,299	16,536	15,427	13,688	83,231
	Per cent	33.4	32.5	32.1	31.7	29.0	31.8
65 years	Number	14,943	12,289	13,041	13,161	11,177	64,611
	Per cent	40.5	38.4	38.3	38.8	33.9	38.0
Total	Number	35,224	29,588	29,577	28,588	24,865	147,842
	Per cent	36.1	34.7	34.5	34.6	31.0	34.3

Notes

1. There were 4,923 invitations with postcodes that do not correspond with the 2001 ABS IRSD classifications by postal area. These are regarded as missing data and are excluded from this table. Hence the sum of the columns may be less than the national total.
2. Percentages are the number of people responding as a proportion of the total number of the eligible population who were sent an invitation.
3. Respondents to the screening invitation are defined as members of the eligible population who were sent an invitation to screen and who returned a Participant Details form and/or a completed FOBT kit.

- Participation was highest in the least disadvantaged quintile (36.1%) and lowest in the most disadvantaged (31.0%). This was consistent for both males and females, and for those aged 55 years and 65 years.

Participation by Aboriginal and Torres Strait Islander and South Sea Islander people

Tables 2.1.4a and 2.1.4b present the number of people who returned a completed FOBT kit and have identified as either Aboriginal and Torres Strait Islander or South Sea Islander. Identification of an individual as Aboriginal and Torres Strait Islander or South Sea Islander is based on self-identification to Medicare Australia through this or other programs. The denominator for initial participation rates stratified by these characteristics is estimated from ABS population estimates from the 2006 Census for Aboriginal and Torres Strait Islander people. These data will not be available for analysis until the end of the first phase of the NBCSP.

Table 2.1.4a: People responding to the screening invitation, by age, sex and Aboriginal and Torres Strait Islander status

	Aboriginal and Torres Strait Islander		Non-Indigenous		Total	
	Number	Rate (per 100 persons invited)	Number	Rate (per 100 persons invited)	Number	Rate (per 100 persons invited)
Males						
55 years	127	n.a.	23,133	n.a.	23,260	n.a.
65 years	88	n.a.	19,814	n.a.	19,902	n.a.
Total	215	n.a.	42,947	n.a.	43,162	n.a.
Females						
55 years	176	n.a.	29,847	n.a.	30,023	n.a.
65 years	99	n.a.	21,545	n.a.	21,644	n.a.
Total	275	n.a.	51,392	n.a.	51,667	n.a.
Persons						
55 years	303	n.a.	52,980	n.a.	53,283	n.a.
65 years	187	n.a.	41,359	n.a.	41,546	n.a.
Total	490	n.a.	94,339	n.a.	94,829	n.a.

Notes

1. There were 54,433 respondents and 305,910 invitees with Aboriginal and Torres Strait Islander status not stated. These are treated as missing data and excluded from this analysis. Hence the sum of the columns may be less than the national total.
2. Rates are the number of people responding as a percentage of the total number of the eligible population who were sent an invitation. These are unable to be calculated until the end of the first phase of the NBCSP.
3. Respondents to the screening invitation are defined as members of the eligible population who were sent an invitation to screen and who returned a Participant Details form and/or a completed FOBT kit.

- There were 490 people who identified as Aboriginal and Torres Strait Islander who responded to the invitation to screen in the NBCSP between 7 August 2006 and 31 July 2007. Of these, 303 were aged 55 years and 187 were aged 65 years.

Table 2.1.4b: People responding to the screening invitation, by age, sex and South Sea Islander status

	South Sea Islander		Non-South Sea Islander		Total	
	Number	Rate (per 100 persons invited)	Number	Rate (per 100 persons invited)	Number	Rate (per 100 persons invited)
Males						
55 years	51	n.a.	23,133	n.a.	23,184	n.a.
65 years	38	n.a.	19,814	n.a.	19,852	n.a.
Total	89	n.a.	42,947	n.a.	43,036	n.a.
Females						
55 years	64	n.a.	29,847	n.a.	29,911	n.a.
65 years	25	n.a.	21,545	n.a.	21,570	n.a.
Total	89	n.a.	51,392	n.a.	51,481	n.a.
Persons						
55 years	115	n.a.	52,980	n.a.	53,095	n.a.
65 years	63	n.a.	41,359	n.a.	41,422	n.a.
Total	178	n.a.	94,339	n.a.	94,517	n.a.

Notes

1. There were 54,745 respondents and 310,399 invitees with South Sea Islander status not stated. These are treated as missing data and excluded from this analysis. Hence the sum of the columns may be less than the national total.
2. Rates are the number of people responding as a percentage of the total number of the eligible population who were sent an invitation. These are unable to be calculated until the end of the first phase of the NBCSP.
3. Respondents to the screening invitation are defined as members of the eligible population who were sent an invitation to screen and who returned a Participant Details form and/or a completed FOBT kit.

- There were 178 people who identified as South Sea Islander who responded to the invitation to screen in the NBCSP between 7 August 2006 and 31 July 2007. Of these, 115 were aged 55 years and 63 were aged 65 years.

Participation by preferred correspondence language

Table 2.1.5 presents the number of people who returned a completed FOBT kit and have identified as preferring to correspond in a language other than English to Medicare Australia through this or other programs. The denominator for initial participation rates stratified by preferred correspondence language is estimated from the 2006 Census. These data will not be available for analysis until the end of the first phase of the NBCSP.

Table 2.1.5: People responding to the screening invitation, by age, sex and preferred correspondence language

	Preferred correspondence language					
	Language other than English		English		Total	
	Number	Rate (per 100 population)	Number	Rate (per 100 population)	Number	Rate (per 100 population)
Males						
55 years	2,921	n.a.	34,267	n.a.	37,188	n.a.
65 years	2,422	n.a.	28,785	n.a.	31,207	n.a.
Total	5,343	n.a.	63,052	n.a.	68,395	n.a.
Females						
55 years	3,772	n.a.	43,139	n.a.	46,911	n.a.
65 years	2,429	n.a.	31,527	n.a.	33,956	n.a.
Total	6,201	n.a.	74,666	n.a.	80,867	n.a.
Persons						
55 years	6,693	n.a.	77,406	n.a.	84,099	n.a.
65 years	4,851	n.a.	60,312	n.a.	65,163	n.a.
Total	11,544	n.a.	137,718	n.a.	149,262	n.a.

Notes

1. Preferred correspondence language is self-reported to Medicare Australia through this or other programs. Participants are assumed to prefer to correspond in English unless otherwise indicated.
2. Rates are the number of people responding as a percentage of the total number of the eligible population who were sent an invitation. These are unable to be calculated until the end of the first phase of the NBCSP.
3. Respondents to the screening invitation are defined as members of the eligible population who were sent an invitation to screen and who returned a Participant Details form and/or a completed FOBT kit.
4. The table will be further classified by largest language groups as data allows.

- There were 11,544 people recorded in the Register preferring to correspond with Medicare Australia in a language other than English who responded to the invitation to screen in the NBCSP between 7 August 2006 and 31 July 2007. Of these, 6,693 were aged 55 years and 4,851 were aged 65 years.

Participation by disability level

Table 2.1.6 presents the number of people who returned a completed FOBT kit and identified a need for assistance due to a disability. The denominator of these rates has to be estimated from the 2006 Census and will not be available for analysis until the end of the first phase of the NBCSP.

Table 2.1.6: People responding to the screening invitation, by age, sex and disability status

	Disability status				Total	
	Severe or profound limitation		No severe or profound limitation		Number	Rate (per 100 population)
	Number	Rate (per 100 population)	Number	Rate (per 100 population)		
Males						
55 years	1,663	n.a.	32,523	n.a.	34,186	n.a.
65 years	2,042	n.a.	26,727	n.a.	28,769	n.a.
Total	3,705	n.a.	59,250	n.a.	62,955	n.a.
Females						
55 years	2,381	n.a.	40,827	n.a.	43,208	n.a.
65 years	2,068	n.a.	29,173	n.a.	31,241	n.a.
Total	4,449	n.a.	70,000	n.a.	74,449	n.a.
Persons						
55 years	4,044	n.a.	73,350	n.a.	77,394	n.a.
65 years	4,110	n.a.	55,900	n.a.	60,010	n.a.
Total	8,154	n.a.	129,250	n.a.	137,404	n.a.

Notes

1. There were 11,858 respondents and 298,749 invitees with disability status not stated. These are treated as missing data and excluded from this analysis.
2. A 'profound' disability status indicates that a person always needs assistance with self-care, movement and/or communications activities. A 'severe' disability status indicates that a person sometimes needs assistance with these activities.
3. Rates are the number of people responding as a percentage of the total number of the eligible population who were sent an invitation. These are unable to be calculated until the end of the first phase of the NBCSP.
4. Respondents to the screening invitation are defined as members of the eligible population who were sent an invitation to screen and who returned a Participant Details form and/or a completed FOBT kit.

- There were 8,154 people who responded to the invitation to screen in the NBCSP between 7 August 2006 and 31 July 2007 who indicated on the Participant Details form that they had severe or profound limitations.

2.2 FOBT outcomes

This section of the report covers all FOBT results that were returned to the Register. In this report, FOBT refers to the entire test kit, explained as follows.

Each participant in the NBCSP is initially sent one FOBT kit containing two samples to be completed and returned to the pathology laboratory for analysis. Pathologists categorise the returned FOBT into one of two groups: correctly completed and incorrectly completed. Participants with FOBTs that are not correctly completed are requested to complete a subsequent 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.

The classification of FOBT by return status and positivity is based only on returned kits. In analysing return status, the dependent variable is whether or not the test was correctly completed. In analysing positivity rates, only correctly completed FOBTs are included in the denominator and the dependent variable is whether or not the result was positive.

In some cases participants have completed more than one FOBT kit. In these cases results from each FOBT kit are included. Results were excluded where the participants were outside the ages of 55 or 65 years, or where the respondent opted off or suspended from the NBCSP.

Numbers and rates of FOBT completion

Table 2.2.1: FOBT kit completion status, Australia

	FOBT correctly completed		FOBT incorrectly completed		All FOBTs
	Number	Rate (per 100 FOBTs)	Number	Rate (per 100 FOBTs)	Number
Males					
55 years	36,096	97.0	1,121	3.0	37,217
65 years	30,334	96.6	1,074	3.4	31,408
Total	66,430	96.8	2,195	3.2	68,625
Females					
55 years	45,123	95.4	2,196	4.6	47,319
65 years	32,715	94.9	1,767	5.1	34,482
Total	77,838	95.2	3,963	4.8	81,801
Persons					
55 years	81,219	96.1	3,317	3.9	84,536
65 years	63,049	95.7	2,841	4.3	65,890
Total	144,268	95.9	6,158	4.1	150,426

Notes

1. FOBT refers to an entire test kit. FOBT completion status is determined by the pathologist performing the FOBT analysis. It indicates the status of the FOBT received by the laboratory.
2. A participant may complete more than one FOBT kit.
3. Rates are the number of FOBT kits received in each status category as a percentage of the total number of FOBT kits received.
4. Rates add to 100 across the row.

- There were 150,426 FOBT kits returned for the period 7 August 2006 to 31 July 2007. This includes replacement kits sent to participants.
- The majority (95.9%) of returned FOBTs were correctly completed. There were 6,158 incorrectly completed kits returned.
- The rate of correctly completed FOBT kits was higher for males (96.8%) than for females (95.2%) and higher for those aged 55 years (96.1%) than those aged 65 years (95.7%).

Table 2.2.2a: Correctly completed FOBT kits, by state and territory

		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Males										
55 years	Number	15,452	9,659	4,833	3,235	1,430	489	852	146	36,096
	Per cent	96.9	97.0	96.8	97.4	96.9	97.6	97.9	98.0	97.0
65 years	Number	13,594	7,949	4,080	2,396	1,205	406	602	102	30,334
	Per cent	96.5	96.2	97.1	97.4	96.8	97.6	95.7	97.1	96.6
Total	Number	29,046	17,608	8,913	5,631	2,635	895	1,454	248	66,430
	Per cent	96.7	96.7	97.0	97.4	96.8	97.6	97.0	97.6	96.8
Females										
55 years	Number	19,283	12,128	6,109	3,971	1,786	639	1,063	144	45,123
	Per cent	95.3	95.2	95.4	95.8	96.2	95.4	95.8	88.3	95.4
65 years	Number	14,694	8,488	4,427	2,597	1,324	459	659	67	32,715
	Per cent	94.9	94.4	95.1	95.1	95.8	93.9	95.5	97.1	94.9
Total	Number	33,977	20,616	10,536	6,568	3,110	1,098	1,722	211	77,838
	Per cent	95.1	94.9	95.3	95.5	96.0	94.7	95.7	90.9	95.2
Persons										
55 years	Number	34,735	21,787	10,942	7,206	3,216	1,128	1,915	290	81,219
	Per cent	96.0	96.0	96.0	96.5	96.5	96.3	96.7	92.9	96.1
65 years	Number	28,288	16,437	8,507	4,993	2,529	865	1,261	169	63,049
	Per cent	95.7	95.3	96.1	96.2	96.3	95.6	95.6	97.1	95.7
Total	Number	63,023	38,224	19,449	12,199	5,745	1,993	3,176	459	144,268
	Per cent	95.8	95.7	96.0	96.4	96.4	96.0	96.3	94.4	95.9

Notes

1. FOBT refers to an entire test kit. FOBT completion status is determined by the pathologist performing the FOBT analysis. It indicates the status of the FOBT received by the laboratory.
2. A participant may complete more than one FOBT kit.
3. Rates are the number of correctly completed FOBT kits received in each state or territory as a percentage of the total number of completed FOBT kits received in that state or territory.

- Correct completion of FOBT kits was high for all states and territories. The lowest overall percentage (94.4%) of correctly completed kits was in the Northern Territory.
- Females aged 55 years in the Northern Territory had the lowest percentage (88.3%) of correctly completed kits.

FOBT completion by geographic location

Table 2.2.2b: Correctly completed FOBT kits, by geographic location

		Major cities	Inner regional	Outer regional	Remote	Very remote	All regions
Males							
55 years	Number	24,892	7,931	3,000	187	35	36,046
	Per cent	96.8	97.4	97.3	98.8	98.0	97.0
65 years	Number	19,694	7,562	2,842	168	27	30,294
	Per cent	96.2	97.3	97.5	93.9	91.4	96.6
Total	Number	44,587	15,493	5,843	355	62	66,340
	Per cent	96.5	97.4	97.4	96.4	95.0	96.8
Females							
55 years	Number	31,057	10,110	3,640	215	39	45,062
	Per cent	94.9	96.5	95.7	96.2	96.7	95.4
65 years	Number	21,256	8,226	2,983	189	26	32,680
	Per cent	94.2	96.3	95.9	96.5	93.6	94.9
Total	Number	52,314	18,336	6,623	404	65	77,742
	Per cent	94.6	96.4	95.8	96.3	95.4	95.2
Persons							
55 years	Number	55,950	18,041	6,640	402	74	81,108
	Per cent	95.8	96.9	96.4	97.4	97.3	96.1
65 years	Number	40,950	15,788	5,826	357	53	62,974
	Per cent	95.2	96.8	96.7	95.2	92.5	95.7
Total	Number	96,900	33,829	12,466	759	127	144,082
	Per cent	95.5	96.9	96.5	96.3	95.2	95.9

Notes

1. States and territories using the geographic rollout schedule may not have commenced screening in some geographic areas at 31 July 2007. Hence figures for geographic regions should be interpreted with caution.
2. There were 198 returned FOBT kits with postcodes that do not correspond with the 2001 ABS remoteness classifications by postal area. These are regarded as missing data and are excluded from this table. Hence the sum of the areas may be less than the national total.
3. FOBT refers to an entire test kit. FOBT completion status is determined by the pathologist performing the FOBT analysis. It indicates the status of the FOBT received by the laboratory.
4. A participant may complete more than one FOBT kit.
5. Rates are the number of correctly completed FOBT kits received in each geographic region as a percentage of the total number of FOBT kits received in that region.

- Correct completion of FOBT kits was high for all regions. The lowest overall percentage (95.2%) of correctly completed FOBT kits was for very remote regions.

FOBT completion by preferred correspondence language

Table 2.2.2c: Correctly completed FOBT kits, by preferred correspondence language

	Preferred correspondence language English		Preferred correspondence language other than English		All correctly completed FOBTs	
	Number	Rate (per 100 FOBTs)	Number	Rate (per 100 FOBTs)	Number	Rate (per 100 FOBTs)
Males						
55 years	33,381	97.2	2,715	94.6	36,096	97.0
65 years	28,079	96.8	2,255	93.4	30,334	96.6
Total	61,460	97.0	4,970	94.0	66,430	96.8
Females						
55 years	41,666	95.8	3,457	90.6	45,123	95.4
65 years	30,471	95.4	2,244	88.7	32,715	94.9
Total	72,137	95.6	5,701	89.8	77,838	95.2
Persons						
55 years	75,047	96.4	6,172	92.3	81,219	96.1
65 years	58,550	96.1	4,499	91.0	63,049	95.7
Total	133,597	96.3	10,671	91.7	144,268	95.9

Notes

1. Preferred correspondence language is self-reported to Medicare Australia through this or other programs. Participants are assumed to prefer to correspond in English unless otherwise indicated.
2. FOBT refers to an entire test kit. FOBT completion status is determined by the pathologist performing the FOBT analysis. It indicates the status of the FOBT received by the laboratory.
3. A participant may complete more than one FOBT kit.
4. Rates are the number of correctly completed FOBT kits received as a percentage of the total number of FOBT kits received in each category.

- The rate of correctly completed FOBTs for people who specified a language other than English as their preferred correspondence language was 91.7% compared with 96.3% for people whose preferred correspondence language was assumed to be English.
- Males aged 55 years with a preferred correspondence language of English were the most likely (97.2%) to complete the FOBT correctly. Females aged 65 years with a preferred correspondence language other than English were the least likely (88.7%) to complete the FOBT correctly.

FOBT completion by disability level

Table 2.2.2d: Correctly completed FOBT kits, by disability level

	Severe or profound activity limitation		No severe or profound activity limitation		All correctly completed FOBTs	
	Number	Rate (per 100 FOBTs)	Number	Rate (per 100 FOBTs)	Number	Rate (per 100 FOBTs)
Males						
55 years	1,557	92.8	31,635	97.3	33,192	97.0
65 years	1,904	92.7	26,101	97.0	28,005	96.7
Total	3,461	92.7	57,736	97.2	61,197	96.9
Females						
55 years	2,169	89.3	39,432	95.8	41,601	95.4
65 years	1,871	86.5	28,287	95.6	30,158	95.0
Total	4,040	88.0	67,719	95.7	71,759	95.2
Persons						
55 years	3,726	90.7	71,067	96.4	74,793	96.1
65 years	3,775	89.5	54,388	96.3	58,163	95.8
Total	7,501	90.1	125,455	96.4	132,956	96.0

Notes

1. There were 11,922 participants with returned FOBT kits with disability status missing. Missing data were excluded from this analysis.
2. FOBT refers to an entire test kit. FOBT completion status is determined by the pathologist performing the FOBT analysis. It indicates the status of the FOBT received by the laboratory.
3. A participant may complete more than one FOBT kit.
4. Rates are the number of correctly completed FOBT kits received as a percentage of the total number of FOBT kits received in each category.

- The rate of correctly completed FOBTs for people with a severe or profound activity limitation was 90.1% compared with 96.4% for people without these limitations.

FOBT positivity numbers and rates

Only correctly completed FOBT kits are analysed. If no significant blood is found in either of the samples the FOBT result is negative. People who receive a negative result are advised to repeat a FOBT every two years.

If significant levels of blood are present in at least one of two samples, the FOBT result is considered positive. People with a positive FOBT are advised to contact their doctor to discuss the result.

An inconclusive FOBT result may occur for a number of reasons including incorrect technique, a significant delay between taking the two samples or a delay in sending the test to the pathology laboratory. People with an inconclusive FOBT result are sent a replacement kit by the Register and asked to complete the FOBT kit again.

Table 2.2.3: FOBT results

	FOBT positive		FOBT negative		FOBT inconclusive		All results
	Number	Rate (per 100 results)	Number	Rate (per 100 results)	Number	Rate (per 100 results)	Number
Males							
55 years	2,542	7.0	33,289	92.2	265	0.7	36,096
65 years	3,009	9.9	27,067	89.2	258	0.9	30,334
Total	5,551	8.4	60,356	90.9	523	0.8	66,430
Females							
55 years	2,286	5.1	42,553	94.3	284	0.6	45,123
65 years	2,275	7.0	30,197	92.3	243	0.7	32,715
Total	4,561	5.9	72,750	93.5	527	0.7	77,838
Persons							
55 years	4,828	5.9	75,842	93.4	549	0.7	81,219
65 years	5,284	8.4	57,264	90.8	501	0.8	63,049
Total	10,112	7.0	133,106	92.3	1,050	0.7	144,268

Notes

1. Rates are the number of FOBT results in each category in terms of 'positive', 'negative' and 'inconclusive' as a percentage of the total number of results.
2. The positivity rates presented here are the proportion of positive results out of all correctly completed FOBTs.

- There were 10,112 positive tests (7.0%) and 1,050 inconclusive tests (0.7%) returned in the period 7 August 2006 to 31 July 2007.
- The overall percentage of positive results was higher for males (8.4%) than females (5.9%). The percentage of positive results was higher for males than females in both the 55 year (7.0% males, 5.1% females) and 65 year (9.9% males, 7.0% females) age groups.
- The percentage of positive results was higher for those aged 65 years (8.4%) than for those aged 55 years (5.9%).

Only valid FOBT results are included for analysing positivity rates in the NBCSP. A valid result is either positive or negative. Inconclusive results were excluded from this analysis.

Table 2.2.4a: FOBT positivity rates, Australia

	Positive results	Rate (per 100 valid results)	Valid results
Males			
55 years	2,542	7.1	35,831
65 years	3,009	10.0	30,076
Total	5,551	8.4	65,907
Females			
55 years	2,286	5.1	44,839
65 years	2,275	7.0	32,472
Total	4,561	5.9	77,311
Persons			
55 years	4,828	6.0	80,670
65 years	5,284	8.4	62,548
Total	10,112	7.1	143,218

Notes

1. Rates are the number of FOBT positive results as a percentage of the total number of valid results.
2. A valid result is either positive or negative. Inconclusive results are excluded.

- The FOBT positivity rate was 8.4% for males and 5.9% for females. The overall positivity rate was 7.1%.
- People aged 65 years had a higher positivity rate (8.4%) than those aged 55 years (6.0%).

Table 2.2.4b: FOBT positivity rates, by geographic location

		Major cities	Inner regional	Outer regional	Remote and very remote	All regions
Males						
55 years	Positive results	1,688	591	239	22	2,540
	Valid results	24,708	7,872	2,982	221	35,782
	Per cent	6.8	7.5	8.0	10.0	7.1
65 years	Positive results	1,869	797	317	20	3,004
	Valid results	19,533	7,499	2,813	193	30,038
	Per cent	9.6	10.6	11.3	10.6	10.0
Total	Positive results	3,557	1,388	556	42	5,544
	Valid results	44,240	15,370	5,795	414	65,820
	Per cent	8.0	9.0	9.6	10.3	8.4
Females						
55 years	Positive results	1,545	525	203	9	2,282
	Valid results	30,872	10,036	3,620	251	44,778
	Per cent	5.0	5.2	5.6	3.5	5.1
65 years	Positive results	1,416	577	261	20	2,274
	Valid results	21,098	8,163	2,964	212	32,437
	Per cent	6.7	7.1	8.8	9.3	7.0
Total	Positive results	2,961	1,103	464	29	4,556
	Valid results	51,970	18,198	6,584	463	77,215
	Per cent	5.7	6.1	7.0	6.2	5.9
Persons						
55 years	Positive results	3,233	1,117	442	31	4,822
	Valid results	55,579	17,907	6,602	472	80,560
	Per cent	5.8	6.2	6.7	6.6	6.0
65 years	Positive results	3,286	1,374	578	40	5,278
	Valid results	40,631	15,662	5,777	405	62,475
	Per cent	8.1	8.8	10.0	9.9	8.4
Total	Positive results	6,518	2,491	1,020	71	10,100
	Valid results	96,210	33,569	12,379	877	143,035
	Per cent	6.8	7.4	8.2	8.1	7.1

Notes

1. States and territories using the geographic rollout schedule may not have commenced screening in some geographic areas at 31 July 2007. Hence figures for geographic regions should be interpreted with caution.
2. Data for remote and very remote regions are combined due to small values.
3. There were 12 positive FOBT results and 183 valid FOBT results with postcodes that do not correspond with the 2001 ABS remoteness classifications by postal area. These are regarded as missing data and were excluded from this table. Hence the sum of the areas may be less than the national total.
4. Percentages are the number of FOBT positive results as a proportion of the total number of valid results.
5. A valid result is either positive or negative. Inconclusive results are excluded.

- Positivity rates were highest in outer regional areas (8.2%) and in remote and very remote areas (8.1%) while the lowest positivity rate was experienced in major cities (6.8%). However, the number of positive results in remote and very remote areas was very small compared with the other geographic regions, and care must be exercised in interpreting these results.

Table 2.2.4c: FOBT positivity rates, by Aboriginal and Torres Strait Islander status

		Aboriginal and Torres Strait Islander	Non-Indigenous	Total
Males				
55 years	Positive results	13	1,415	1,428
	Valid results	124	22,257	22,381
	Per cent	10.5	6.4	6.4
65 years	Positive results	11	1,718	1,729
	Valid results	86	19,102	19,188
	Per cent	12.8	9.0	9.0
Total	Positive	24	3,133	3,157
	Valid results	210	41,359	41,569
	Per cent	11.4	7.6	7.6
Females				
55 years	Positive results	11	1,287	1,298
	Valid results	170	28,578	28,748
	Per cent	6.5	4.5	4.5
65 years	Positive results	6	1,269	1,275
	Valid results	95	20,687	20,782
	Per cent	6.3	6.1	6.1
Total	Positive	17	2,556	2,573
	Valid results	265	49,265	49,530
	Per cent	6.4	5.2	5.2
Persons				
55 years	Positive results	24	2,702	2,726
	Valid results	294	50,835	51,129
	Per cent	8.2	5.3	5.3
65 years	Positive results	17	2,987	3,004
	Valid results	181	39,789	39,970
	Per cent	9.4	7.5	7.5
Total	Positive	41	5,689	5,730
	Valid results	475	90,624	91,099
	Per cent	8.6	6.3	6.3

Notes

1. There were 4,382 positive FOBT results and 52,119 valid FOBT results where Aboriginal and Torres Strait Islander status was not stated. These are regarded as missing data and are excluded from this table. Hence sum of the areas may be less than the national total.
2. Aboriginal and Torres Strait Islander status is defined by the participant.
3. Percentages are the number of FOBT positive results as a proportion of the total number of valid results.
4. A valid result is either positive or negative. Inconclusive results are excluded.

- Positivity rates were higher in people identified as Aboriginal and Torres Strait Islander (8.6%) than non-Indigenous (6.3%). However, the number of positive results in Aboriginal and Torres Strait Islander people was very small compared with non-Indigenous, and care must be exercised in interpreting these results.

2.3 GP and other primary health care practitioner visits

Primary health care practitioners are classified by Medicare Australia as a general practitioner or other primary health care provider. This may include remote health clinics or other specialists providing GP services.

Participants are advised to visit their general practitioner on receiving a positive FOBT result to discuss follow-up testing. Practitioners were requested to complete a GP Assessment form for these consultations. Completion of GP Assessment forms by primary health care practitioners is not mandatory. As a result, primary health care attendance rates presented in this section may be under represented.

Results for participants in the National Program who received a positive FOBT result are included in this section. Results are excluded where the participants were outside the target age group of 55 or 65 years, opted off or suspended participation in the NBCSP.

Primary health consultations

Table 2.3.1: Primary health care consultations following a positive FOBT result, by age, sex and state and territory

		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Males										
55 years	Number	224	119	121	47	23	12	15	2	563
	Per cent	21.6	16.6	34.0	20.9	25.8	25.0	25.9	16.7	22.1
65 years	Number	292	141	155	72	31	23	12	2	728
	Per cent	23.0	17.9	36.0	26.7	25.0	34.8	23.1	16.7	24.2
Total	Number	516	260	276	119	54	35	27	4	1,291
	Per cent	22.4	17.3	35.1	24.0	25.4	30.7	24.5	16.7	23.3
Females										
55 years	Number	241	122	103	60	26	18	15	1	586
	Per cent	25.3	19.4	33.7	29.4	29.9	37.5	27.3	20.0	25.6
65 years	Number	246	131	122	46	28	15	18	1	607
	Per cent	25.9	20.5	40.7	24.9	29.2	31.9	38.3	11.1	26.7
Total	Number	487	253	225	106	54	33	33	2	1,193
	Per cent	25.6	19.9	37.1	27.2	29.5	34.7	32.4	14.3	26.2
Persons										
55 years	Number	465	241	224	107	49	30	30	3	1,149
	Per cent	23.4	17.9	33.8	24.9	27.8	31.3	26.5	17.6	23.8
65 years	Number	538	272	277	118	59	38	30	3	1,335
	Per cent	24.3	19.1	37.9	25.9	26.8	33.6	30.3	14.3	25.3
Total	Number	1,003	513	501	225	108	68	60	6	2,484
	Per cent	23.8	18.5	36.0	25.5	27.3	32.5	28.3	15.8	24.6

Note: Percentages are the number of primary health care consultations following a positive FOBT result as a proportion of the total number of positive FOBT results.

- The total number of visits to primary health care practitioners following a positive FOBT result recorded in the Register for the period 7 August 2006 to 31 July 2007 was low – 2,484 (24.6% of positive FOBT results). However, it is possible there were people who had received positive FOBT results who intended to visit a primary health carer and had not yet done so, or there were completed GP Assessment forms not yet received by the Register.
- The highest rate of primary health care attendance recorded was in Queensland (36.0%) followed by Tasmania (32.5%) and the ACT (28.3%).
- The rate of primary health care attendance following a positive FOBT result was higher for females (26.2%) than for males (23.3%). Attendance rates were also higher for people aged 65 years (25.3%) compared with those aged 55 years (23.8%).

Primary health care consultations by geographic location

Table 2.3.2: Primary health care consultations following a positive FOBT result, by age, sex and geographic location

		Major cities	Inner regional	Outer regional	Remote and very remote	All regions
Males						
55 years	Number	364	130	63	5	562
	Per cent	21.6	22.0	26.3	22.8	22.1
65 years	Number	465	192	66	5	728
	Per cent	24.9	24.1	20.8	24.7	24.2
Total	Number	829	322	129	10	1,290
	Per cent	23.3	23.2	23.1	23.7	23.3
Females						
55 years	Number	386	135	62	3	586
	Per cent	25.0	25.7	30.4	34.7	25.7
65 years	Number	389	143	70	4	606
	Per cent	27.4	24.8	26.9	21.4	26.6
Total	Number	775	278	132	7	1,192
	Per cent	26.2	25.2	28.4	25.5	26.2
Persons						
55 years	Number	751	265	124	8	1,148
	Per cent	23.2	23.7	28.2	26.2	23.8
65 years	Number	853	335	136	9	1,334
	Per cent	26.0	24.4	23.5	23.1	25.3
Total	Number	1,604	600	261	17	2,482
	Per cent	24.6	24.1	25.5	24.4	24.6

Notes

1. States and territories using the geographic rollout schedule may not have commenced screening in some geographic areas at 31 July 2007. Figures for geographic regions should be interpreted with caution.
2. Data for remote and very remote regions are combined due to small numbers.
3. There were 2 GP visits and 12 positive FOBT results with postcodes that do not correspond with the 2001 ABS remoteness classifications by postal area. These are regarded as missing data and are excluded from this table. Hence the sum of the areas may be less than the national total.
4. Percentages are the number of primary health care consultations following a positive FOBT as a proportion of the total number of positive FOBT results.

- The highest rate of follow-up by primary health care consultations following a positive FOBT result was in outer regional areas (25.5%). The lowest follow-up rate (24.1%) was recorded in inner regional areas. However, the number of consultations following a positive FOBT result in remote and very remote regions was very small compared with other geographic regions, and care must be exercised in interpreting these results.

Primary health care consultations by socioeconomic status

Table 2.3.3: Primary health care consultations following a positive FOBT result, by age, sex and socioeconomic status

		1st quintile (least disadvantaged)	2nd quintile	3rd quintile	4th quintile	5th quintile (most disadvantaged)	Total
Males							
55 years	Number	97	135	110	115	99	556
	Per cent	19.2	26.4	23.6	22.1	19.4	22.1
65 years	Number	143	136	156	146	143	724
	Per cent	25.3	24.0	25.0	23.1	24.0	24.2
Total	Number	240	271	266	261	242	1,280
	Per cent	22.4	25.2	24.4	22.6	21.9	23.3
Females							
55 years	Number	132	101	125	121	100	579
	Per cent	26.9	23.8	26.2	26.9	23.8	25.6
65 years	Number	110	107	131	155	103	606
	Per cent	27.1	26.2	26.5	31.1	22.8	26.8
Total	Number	242	208	256	276	203	1,185
	Per cent	27.0	25.0	26.3	29.1	23.3	26.2
Persons							
55 years	Number	229	236	235	236	199	1,135
	Per cent	23.0	25.2	24.9	24.3	21.4	23.8
65 years	Number	253	243	287	301	246	1,330
	Per cent	26.1	24.9	25.6	26.6	23.5	25.4
Total	Number	482	479	522	537	445	2,465
	Per cent	24.5	25.1	25.3	25.5	22.5	24.6

Notes

1. There were 19 recorded GP visits and 90 positive FOBT results with postcodes that do not correspond with the 2001 ABS IRSD classifications by postal area. These are regarded as missing data and are excluded from this table. Hence the sum of the columns may be less than the national total.
2. Percentages are the number of primary health care consultations following a positive FOBT as a proportion of the total number of positive FOBT results.

- The lowest overall rate (22.5%) of consultations by primary health care practitioners following a positive FOBT result was in the most disadvantaged quintile.

Primary health care consultations by Aboriginal and Torres Strait Islander people

Table 2.3.4: Primary health care consultations following a positive FOBT result, by age, sex and Aboriginal and Torres Strait Islander status

	Aboriginal and Torres Strait Islander		Non-Indigenous		Total	
	Number	Rate (per 100 positive FOBTs)	Number	Rate (per 100 positive FOBTs)	Number	Rate (per 100 positive FOBTs)
Males						
55 years	n.p.	n.p.	n.p.	n.p.	421	29.5
65 years	n.p.	n.p.	n.p.	n.p.	567	32.8
Total	6	25.0	982	31.3	988	31.3
Females						
55 years	n.p.	n.p.	n.p.	n.p.	446	34.4
65 years	n.p.	n.p.	n.p.	n.p.	463	36.3
Total	7	41.2	902	35.3	909	35.3
Persons						
55 years	n.p.	n.p.	n.p.	n.p.	867	31.8
65 years	n.p.	n.p.	n.p.	n.p.	1,030	34.3
Total	13	31.7	1,884	33.1	1,897	33.1

Notes

1. There were 587 GP visits following a positive FOBT result and 4,382 valid FOBT results where Aboriginal and Torres Strait Islander status was not stated. These are regarded as missing data and are excluded from this table.
2. Aboriginal and Torres Strait Islander status is defined by the participant.
3. Rates are the number of primary health care consultations following a positive FOBT as a percentage of the total number of positive FOBT results.
4. n.p. denotes numbers and rates suppressed due to small cell values.

- Of the 1,897 primary health consultations where Aboriginal and Torres Strait Islander status was reported, 13 consultations were by people identifying as Aboriginal and Torres Strait Islander to Medicare Australia by this or other programs.

Primary health care consultation numbers and rates by preferred correspondence language

Table 2.3.5: Primary health care consultations following a positive FOBT result, by age, sex and preferred correspondence language

	Preferred correspondence language					
	Language other than English		English		Total	
	Number	Rate (per 100 positive FOBTs)	Number	Rate (per 100 positive FOBTs)	Number	Rate (per 100 positive FOBTs)
Males						
55 years	48	26.4	515	21.8	563	22.1
65 years	58	29.9	670	23.8	728	24.2
Total	106	28.2	1,185	22.9	1,291	23.3
Females						
55 years	48	27.4	538	25.5	586	25.6
65 years	35	27.6	572	26.6	607	26.7
Total	83	27.5	1,110	26.1	1,193	26.2
Persons						
55 years	96	26.9	1,053	23.6	1,149	23.8
65 years	93	29.0	1,242	25.0	1,335	25.3
Total	189	27.9	2,295	24.3	2,484	24.6

Notes

1. Preferred correspondence language is self-reported to Medicare Australia through this or other programs. Participants are assumed to prefer to correspond in English unless otherwise indicated.
2. Rates are the number of primary health care consultations following a positive FOBT as a percentage of the total number of positive FOBT results for preferred correspondence language.

- There were 189 primary health consultations where the participant indicated that they prefer to correspond in a language other than English. This represented 27.9% of positive FOBT results for this group.

Primary health care consultations by reported disability status

Table 2.3.6: Primary health care consultation following a positive result, by age, sex and reported disability status

	Disability status				Total	
	Severe or profound limitation		No severe or profound limitation		Number	Rate (per 100 positive FOBTs)
	Number	Rate (per 100 positive FOBTs)	Number	Rate (per 100 positive FOBTs)		
Males						
55 years	39	21.8	518	23.5	557	23.4
65 years	58	22.0	665	25.8	723	25.4
Total	97	21.9	1,183	24.7	1,280	24.5
Females						
55 years	34	20.5	543	27.2	577	26.7
65 years	43	23.5	557	28.3	600	27.9
Total	77	22.1	1,100	27.8	1,177	27.3
Persons						
55 years	73	21.2	1,061	25.3	1,134	25.0
65 years	101	22.6	1,222	26.9	1,323	26.5
Total	174	22.0	2,283	26.1	2,457	25.8

Notes

1. There were 27 GP visits following positive FOBT results and 571 positive FOBT results where disability status was not stated. These are regarded as missing data and are excluded from this table. Hence the sum of the areas may be less than the national total.
2. A 'profound' disability status indicates that a person always needs assistance with self-care, movement and/or communications activities. A 'severe' disability status indicates that a person sometimes needs assistance with these activities.
3. Rates are the number of primary health care consultations following a positive FOBT as a percentage of the total number of positive FOBT results for that group.

- The crude rate of primary health care follow-up recorded in the Register after a positive FOBT result for people with a severe or profound limitation was 22.0% compared with 26.1% for people without a severe or profound limitation.

Primary health care consultations by reported symptoms

Table 2.3.7: Primary health care consultations following a positive FOBT result, by age, sex and reported symptom status

		Symptom status						All respondents reporting symptom status
		No symptoms	Recent onset rectal bleeding ≤6 months	Longer standing rectal bleeding >6 months	Significant change in bowel habits	Iron deficiency anaemia	Abdominal pain	
Males								
55 years	Number	458	30	42	15	5	13	549
	Per cent	83.4	5.5	7.7	2.7	0.9	2.4	100.0
65 years	Number	614	37	37	15	7	10	707
	Per cent	86.8	5.2	5.2	2.1	1.0	1.4	100.0
Total	Number	1,072	67	79	30	12	23	1,256
	Per cent	85.4	5.3	6.3	2.4	1.0	1.8	100.0
Females								
55 years	Number	455	42	39	20	10	19	567
	Per cent	80.2	7.4	6.9	3.5	1.8	3.4	100.0
65 years	Number	475	25	31	20	15	25	581
	Per cent	81.8	4.3	5.3	3.4	2.6	4.3	100.0
Total	Number	930	67	70	40	25	44	1,148
	Per cent	81.0	5.8	6.1	3.5	2.2	3.8	100.0
Persons								
55 years	Number	913	72	81	35	15	32	1,116
	Per cent	81.8	6.5	7.3	3.1	1.3	2.9	100.0
65 years	Number	1,089	62	68	35	22	35	1,288
	Per cent	84.5	4.8	5.3	2.7	1.7	2.7	100.0
Total	Number	2,002	134	149	70	37	67	2,404
	Per cent	83.3	5.6	6.2	2.9	1.5	2.8	100.0

Notes

1. Only participants who have a symptom status (including 'no symptoms') recorded in the GP Assessment form Q2 are included in this analysis. There were 80 participants with missing data for this question excluded from the analysis.
2. Percentages are the number of primary health care consultations with respondents reporting specific symptom status following a positive FOBT result as a proportion of the total number of consultations in which respondents reported symptom status with a positive FOBT result.
3. Respondents to the screening invitation are 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.
4. Excluding the last column, percentages can add to more than 100 across the row as one respondent might report more than one symptom.

- Of the 2,484 consultations following a positive FOBT result recorded in the Register, there were 80 consultations in which people did not report their symptom status and are excluded from this analysis.
- Of the remaining 2,404 consultations, 134 (5.6%) reported recent onset of rectal bleeding in the past 6 months, 149 (6.2%) reported longer standing rectal bleeding greater than 6 months, 70 (2.9%) reported a significant change in bowel habits, 37 (1.5%) reported iron deficiency anaemia and 67 (2.8%) reported abdominal pain.

Primary health care referrals

Table 2.3.8a: Referrals for colonoscopy or other examination following a positive FOBT result

	Referral for colonoscopy ^(a)		Referral for other examination ^(b)		No referral ^(c)		All GP visits
	Number	Rate (per 100 GP visits)	Number	Rate (per 100 GP visits)	Number	Rate (per 100 GP visits)	Number
Males							
55 years	528	93.8	13	2.3	22	3.9	563
65 years	661	90.8	20	2.7	47	6.5	728
Total	1,189	92.1	33	2.6	69	5.3	1,291
Females							
55 years	534	91.1	18	3.1	34	5.8	586
65 years	560	92.3	16	2.6	31	5.1	607
Total	1,094	91.7	34	2.8	65	5.4	1,193
Persons							
55 years	1,062	92.4	31	2.7	56	4.9	1,149
65 years	1,221	91.5	36	2.7	78	5.8	1,335
Total	2,283	91.9	67	2.7	134	5.4	2,484

(a) Patients referred for colonoscopy with/without referral for other examination.

(b) Patients not referred for colonoscopy but referred for other examination only.

(c) Patients not referred for colonoscopy or other examination.

Note: Rates are the number of consultations following a positive FOBT who received/not received referral for either colonoscopy or other examination as a percentage of the total number of consultations following a positive FOBT.

- Of the 2,484 recorded primary health care consultations following a positive FOBT result, 2,283 (91.9%) were referred for colonoscopy, 67 (2.7%) were referred for other examinations and 134 (5.4%) were not referred for further investigation. Reasons for non-referral for colonoscopy are detailed in Table 2.3.10.
- For males the rate of referral for colonoscopy was higher for those aged 55 years (93.8%) than for those aged 65 years (90.8%). For females the rate of referral for colonoscopy was lower for those aged 55 years (91.1%) than for those aged 65 years (92.3%).

Table 2.3.8b: Referrals for colonoscopy or other examination following a positive FOBT result, by geographic location

		Referral for colonoscopy ^(a)		Referral for other examination ^(b)		No referral ^(c)		All GP visits
		Number	Rate (per 100 GP visits)	Number	Rate (per 100 GP visits)	Number	Rate (per 100 GP visits)	Number
Major cities								
Males	55 years	340	93.4	7	2.1	17	4.6	364
	65 years	423	90.9	13	2.9	29	6.2	465
	Total	763	92.0	21	2.5	46	5.5	829
Females	55 years	351	90.8	13	3.3	23	5.9	386
	65 years	355	91.2	14	3.5	21	5.3	389
	Total	705	91.0	26	3.4	43	5.6	775
Persons	55 years	691	92.1	20	2.7	39	5.2	751
	65 years	777	91.0	27	3.2	49	5.8	853
	Total	1,468	91.5	47	2.9	89	5.5	1,604
Inner regional								
Males	55 years	124	95.6	2	1.8	3	2.5	130
	65 years	176	91.7	4	1.8	12	6.5	192
	Total	300	93.3	6	1.8	16	4.9	322
Females	55 years	122	90.5	4	2.9	9	6.6	135
	65 years	136	95.2	1	1.0	5	3.8	143
	Total	258	92.9	5	1.9	14	5.2	278
Persons	55 years	246	93.0	6	2.4	12	4.6	265
	65 years	312	93.2	5	1.5	18	5.3	335
	Total	559	93.1	11	1.9	30	5.0	600
Outer regional								
Males	55 years	59	93.4	2	3.4	2	3.2	63
	65 years	57	86.8	3	4.6	6	8.6	66
	Total	116	90.0	5	4.0	8	6.0	129
Females	55 years	58	94.0	1	1.9	3	4.0	62
	65 years	64	91.4	1	1.4	5	7.1	70
	Total	122	92.6	2	1.7	7	5.7	132
Persons	55 years	117	93.7	3	2.7	5	3.6	124
	65 years	121	89.2	4	3.0	11	7.8	136
	Total	238	91.3	7	2.8	15	5.8	261

(continued)

Table 2.3.8b (continued): Referrals for colonoscopy or other examination following a positive FOBT result, by geographic location

		Referral for colonoscopy ^(a)		Referral for other examination ^(b)		No referral ^(c)		All GP visits
		Number	Rate (per 100 GP visits)	Number	Rate (per 100 GP visits)	Number	Rate (per 100 GP visits)	Number
Remote								
Males	55 years	4	79.8	1	20.2	0	0.0	5
	65 years	5	99.6	0	0.0	0	0.0	5
	Total	9	89.9	1	10.1	0	0.0	10
Females	55 years	2	100.0	0	0.0	0	0.0	2
	65 years	3	99.7	0	0.0	0	0.0	3
	Total	5	99.8	0	0.0	0	0.0	5
Persons	55 years	6	85.7	1	14.3	0	0.0	7
	65 years	8	99.6	0	0.0	0	0.0	8
	Total	14	93.3	1	6.7	0	0.0	15
Very remote								
Males	55 years	0	0.0	0	0.0	0	0.0	0
	65 years	0	0.0	0	0.0	0	0.0	0
	Total	0	0.0	0	0.0	0	0.0	0
Females	55 years	1	100.0	0	0.0	0	0.0	1
	65 years	1	100.0	0	0.0	0	0.0	1
	Total	2	100.0	0	0.0	0	0.0	2
Persons	55 years	1	100.0	0	0.0	0	0.0	1
	65 years	1	98.2	0	0.0	0	0.0	1
	Total	2	99.1	0	0.0	0	0.0	2

(a) Patients referred for colonoscopy with/without referral for other examination.

(b) Patients not referred for colonoscopy but referred for other examination only.

(c) Patients not referred for colonoscopy or other examination.

Notes

1. Rates are the number of consultations following a positive FOBT who received/not received referral for either colonoscopy or other examination as a percentage of the total number of consultations following a positive FOBT.
2. States and territories using the geographic rollout schedule may not have commenced screening in some geographic areas at 31 July 2007. Hence figures for geographic regions should be interpreted with caution.
3. There were 2 GP visits following positive FOBT results with postcodes that do not correspond with the 2001 ABS remoteness classifications by postal area. These are regarded as missing data and are excluded from this table. Hence the sum of the areas may be less than the national total.

- Referral rates for colonoscopy following a positive FOBT result were 91.5% in major cities, 93.1% in inner regional locations and 91.3% in outer regional locations.
- There were 14 colonoscopy referrals for people in remote locations and 2 in very remote locations.

Table 2.3.9: Referrals by primary health carers for colonoscopy or other examination, by age, sex and reporting symptom/no symptoms^(a)

	Referral for colonoscopy or other examination				No referral for colonoscopy or other examination			
	With symptoms		No symptoms		With symptoms		No symptoms	
	Number	Rate (per 100 cases) ^(b)	Number	Rate (per 100 cases) ^(c)	Number	Rate (per 100 cases) ^(d)	Number	Rate (per 100 cases) ^(e)
Males								
55 years	89	16.8	440	83.2	2	10.0	18	90.0
65 years	84	12.7	579	87.3	9	20.5	35	79.5
Total	173	14.5	1,019	85.5	11	17.2	53	82.8
Females								
55 years	107	20.0	428	80.0	5	15.6	27	84.4
65 years	100	18.1	451	81.9	6	20.0	24	80.0
Total	207	19.1	879	80.9	11	17.7	51	82.3
Persons								
55 years	196	18.4	868	81.6	7	13.5	45	86.5
65 years	184	15.2	1,030	84.8	15	20.3	59	79.7
Total	380	16.7	1,898	83.3	22	17.5	104	82.5

(a) Symptoms include:

- recent onset rectal bleeding (less than or equal to 6 months)
- longer standing rectal bleeding (longer than 6 months)
- significant change in bowel habits
- iron deficiency anaemia
- abdominal pain.

(b) Rates are the number of consultations following a positive FOBT and reported symptom(s) that resulted in referral for either colonoscopy or other examination as a percentage of the total number of consultations following a positive FOBT and reported symptom(s).

(c) Rates are the number of consultations following a positive FOBT and no reported symptoms that resulted in referral for either colonoscopy or other examination as a percentage of the total number of consultations following a positive FOBT and no reported symptoms.

(d) Rates are the number of consultations following a positive FOBT and reported symptom(s) that did not result in referral for either colonoscopy or other examination as a percentage of the total number of consultations following a positive FOBT and reported symptom(s).

(e) Rates are the number of consultations following a positive FOBT and no reported symptoms that did not result in referral for either colonoscopy or other examination as a percentage of the total number of consultations following a positive FOBT and no reported symptoms.

Note: There were 80 recorded visits to primary health care practitioners where no symptom status was recorded. These records are excluded from this analysis.

- Of the 2,278 referrals with a recorded symptom status, 380 (16.7%) reported symptoms and 1,898 (83.3%) reported experiencing no symptoms.
- Of the 126 consultations with a reported symptom status which did not result in referral for colonoscopy or other examination, 22 (17.5%) reported symptoms and the remaining 104 (82.5%) reported experiencing no symptoms.

Table 2.3.10: Primary health care consultations following a positive FOBT result that did not result in referral for colonoscopy, by age, sex and reason

		Reason						All respondents
		Bowel cancer previously diagnosed	Limited life expectancy	Recent colonoscopy (<18 months)	Patient declines colonoscopy	Significant co-morbidity	Other medical condition(s)	
Males								
55 years	Number	n.p.	n.p.	13	17	3	11	35
	Per cent	n.p.	n.p.	37.1	48.6	8.6	31.4	100.0
65 years	Number	n.p.	n.p.	30	19	5	18	67
	Per cent	n.p.	n.p.	44.8	28.4	7.5	26.9	100.0
Total	Number	n.p.	n.p.	43	36	8	29	102
	Per cent	n.p.	n.p.	42.2	35.3	7.8	28.4	100.0
Females								
55 years	Number	n.p.	n.p.	18	21	3	12	52
	Per cent	n.p.	n.p.	34.6	40.4	5.8	23.1	100.0
65 years	Number	n.p.	n.p.	26	11	3	13	47
	Per cent	n.p.	n.p.	55.3	23.4	6.4	27.7	100.0
Total	Number	n.p.	n.p.	44	32	6	25	99
	Per cent	n.p.	n.p.	44.4	32.3	6.1	25.3	100.0
Persons								
55 years	Number	2	1	31	38	6	23	87
	Per cent	2.3	1.1	35.6	43.7	6.9	26.4	100.0
65 years	Number	1	1	56	30	8	31	114
	Per cent	0.9	0.9	49.1	26.3	7.0	27.2	100.0
Total	Number	3	2	87	68	14	54	201
	Per cent	1.5	1.0	43.3	33.8	7.0	26.9	100.0

Notes

1. Rates are the number of consultations following a positive FOBT that did not result in referral for colonoscopy as a percentage of the total number of consultations following positive FOBT result.
2. n.p. denotes numbers and rates suppressed due to small cell values.

- There were 201 primary health care consultations following a positive FOBT result that did not result in referral for colonoscopy by the primary health care practitioner. Of these, 87 (43.3%) had a colonoscopy performed within the past 18 months, 68 (33.8%) declined a colonoscopy, 14 (7.0%) had a significant co-morbidity and 54 (26.9%) had other medical conditions which precluded them from having a colonoscopy.
- Of the 87 consultations that had recently had a colonoscopy performed, 56 (49.1%) were aged 65 years and 31 (35.6%) were aged 55 years.

2.4 Colonoscopy

The Australian Cancer Network Colorectal Cancer Guidelines Revision Committee (2005) recommends colonoscopy as the most accurate investigation for assessing the colon and rectum. Colonoscopy allows biopsy and histologic confirmation of the diagnosis. It also allows identification and endoscopic removal of synchronous polyps.

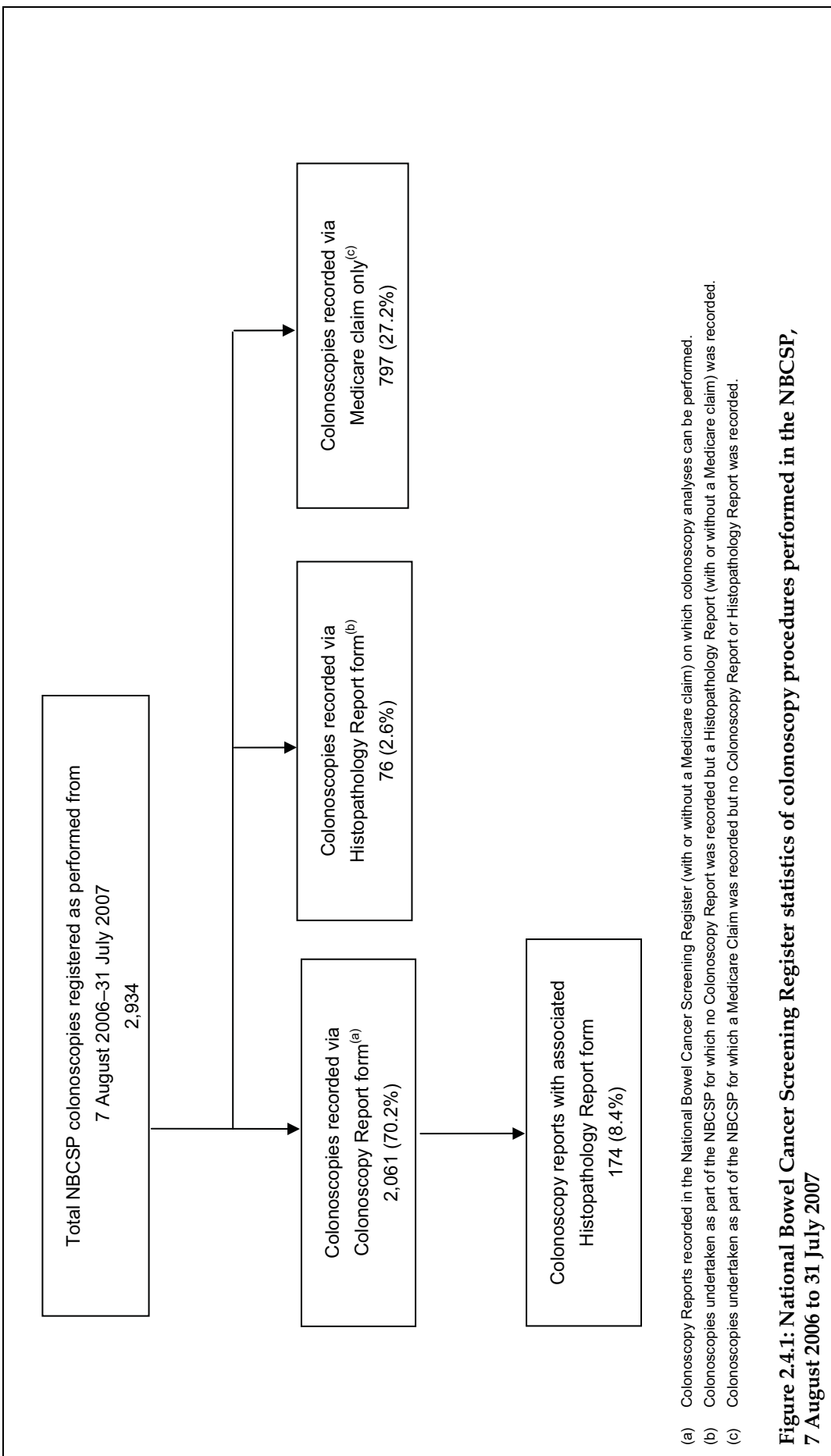
This section provides a summary of colonoscopy procedures up to 31 July 2007 as part of the NBCSP. A participant may undergo more than one colonoscopy as part of an investigation of a positive FOBT for reasons including inadequate bowel preparation, incomplete examination or review of the polypectomy site. There were 8 participants who had more than one colonoscopy recorded in the period 7 August 2006 to 31 July 2007.

The rates presented in this section present the rate of total colonoscopies performed as a proportion of positive FOBT results. Future reports will distinguish between the rates of individual follow-up by colonoscopy following a positive FOBT as distinct from the total number of colonoscopies performed.

The rates presented in this section under-estimate the true result due to a number of factors:

- The data in this section are sourced from NBCSP Colonoscopy Report forms included in the Register as at 31 July 2007. Completion of Colonoscopy Report forms by practitioners is not mandatory. Colonoscopies identified as a result of returned Histopathology Report forms or Medicare claims are not included in this section. Of the 2,934 colonoscopies recorded, 2,061 were identified by Colonoscopy Report forms, 797 were identified by Medicare claims for colonoscopy procedures as part of the NBCSP and 76 by Histopathology Report forms without a corresponding Colonoscopy Report form (Figure 2.4.1).
- The number of positive FOBT results in the denominator includes all FOBTs processed up to 31 July 2007. However, the number of colonoscopies in the numerator only includes those with a positive FOBT who have had time to visit their primary health carer and undergo a colonoscopy. This under-estimation does not affect comparisons between rates for different groups, but it does mean that the absolute levels of follow-up colonoscopies are understated.

Colonoscopies for people who suspended from, or opted off, the NBCSP or were outside the age of 55 or 65 years were also excluded from this analysis.



- (a) Colonoscopy Reports recorded in the National Bowel Cancer Screening Register (with or without a Medicare claim) on which colonoscopy analyses can be performed.
- (b) Colonoscopies undertaken as part of the NBCSP for which no Colonoscopy Report was recorded but a Histopathology Report (with or without a Medicare claim) was recorded.
- (c) Colonoscopies undertaken as part of the NBCSP for which a Medicare Claim was recorded but no Colonoscopy Report or Histopathology Report was recorded.

Figure 2.4.1: National Bowel Cancer Screening Register statistics of colonoscopy procedures performed in the NBCSP, 7 August 2006 to 31 July 2007

Colonoscopy procedures reported

Table 2.4.1: Colonoscopies recorded following a positive FOBT result, by age, sex and state and territory

		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Males										
55 years	Number	233	147	72	36	23	6	16	0	533
	Per cent	22.4	20.5	20.2	16.0	25.8	12.5	27.6	0.0	21.0
65 years	Number	299	145	76	41	21	8	18	0	608
	Per cent	23.6	18.4	17.6	15.2	16.9	12.1	34.6	0.0	20.2
Total	Number	532	292	148	77	44	14	34	0	1,141
	Per cent	23.1	19.4	18.8	15.6	20.7	12.3	30.9	0.0	20.6
Females										
55 years	Number	207	110	46	43	18	10	14	0	448
	Per cent	21.8	17.5	15.0	21.1	20.7	20.8	25.5	0.0	19.6
65 years	Number	223	125	55	23	25	5	16	0	472
	Per cent	23.4	19.5	18.3	12.4	26.0	10.6	34.0	0.0	20.7
Total	Number	430	235	101	66	43	15	30	0	920
	Per cent	22.6	18.5	16.7	17.0	23.5	15.8	29.4	0.0	20.2
Persons										
55 years	Number	440	257	118	79	41	16	30	0	981
	Per cent	22.1	19.1	17.8	18.4	23.3	16.7	26.5	0.0	20.3
65 years	Number	522	270	131	64	46	13	34	0	1,080
	Per cent	23.5	18.9	17.9	14.1	20.9	11.5	34.3	0.0	20.4
Total	Number	962	527	249	143	87	29	64	0	2,061
	Per cent	22.9	19.0	17.9	16.2	22.0	13.9	30.2	0.0	20.4

Notes

1. Percentages of colonoscopies performed are the number of colonoscopy reports recorded following a positive FOBT as a proportion of the total number of positive FOBT results.
2. There were 8 people with more than one colonoscopy recorded in the Register.

- There were 2,061 Colonoscopy Report forms recorded as part of the National Program between 7 August 2006 and 31 July 2007. This represents 20.4% of the number of positive FOBT results recorded.
- The rate of colonoscopies following a positive FOBT result reported was 20.2% for females and 20.6% for males.
- The rate of colonoscopies following a positive FOBT result recorded was 20.4% for people aged 65 years and 20.3% for those aged 55 years.
- As at 31 July 2007 the states with the highest percentage of colonoscopies reported following a positive FOBT were the Australian Capital Territory (30.2%), New South Wales (22.9%) and South Australia (22.0%).

Table 2.4.2: Colonoscopies reported following a positive FOBT result, by age, sex and geographic location

		Major cities	Inner regional	Outer regional	Remote and very remote	All regions
Males						
55 years	Number	352	132	45	4	533
	Per cent	20.8	22.3	19.0	17.3	21.0
65 years	Number	396	167	42	3	608
	Per cent	21.2	20.9	13.3	16.1	20.2
Total	Number	748	299	88	7	1,141
	Per cent	21.0	21.5	15.7	16.7	20.6
Females						
55 years	Number	312	102	34	0	448
	Per cent	20.2	19.4	16.6	3.9	19.6
65 years	Number	306	118	45	3	472
	Per cent	21.6	20.4	17.3	16.1	20.8
Total	Number	618	219	79	4	920
	Per cent	20.9	19.9	17.0	12.3	20.2
Persons						
55 years	Number	664	234	79	4	981
	Per cent	20.5	20.9	17.9	13.5	20.3
65 years	Number	702	285	87	6	1,080
	Per cent	21.4	20.7	15.1	16.1	20.5
Total	Number	1,366	518	167	11	2,061
	Per cent	21.0	20.8	16.3	14.9	20.4

Notes

1. States and territories using the geographic rollout schedule may not have commenced screening in some geographic areas at 31 July 2007. Hence figures for geographic regions should be interpreted with caution.
2. Data for remote and very remote regions are combined due to small cell values.
3. There were 12 positive FOBT results with postcodes that do not correspond with the 2001 ABS remoteness classifications by postal area. These are regarded as missing data and are excluded from this table. Hence the sum of the areas may be less than the national total.
4. Percentages of colonoscopies performed are the number of colonoscopies reported following a positive FOBT as a proportion of the total number of positive FOBT results.

- Males had a higher rate of positive FOBT results and therefore a higher number of recorded colonoscopies; however, there was no difference in the colonoscopy performance rate between males and females.
- The rate of colonoscopies reported following a positive FOBT result was highest in major cities (21.0%), followed by 20.8% in inner regional locations and 16.3% in outer regional locations. There were 11 colonoscopies reported for participants residing in remote and very remote regions.

Table 2.4.3: Colonoscopies reported following a positive FOBT result, by age, sex and socioeconomic status

		1st quintile (least disadvantaged)	2nd quintile	3rd quintile	4th quintile	5th quintile (most disadvantaged)	Total
Males							
55 years	Number	104	121	96	126	80	527
	Per cent	20.6	23.7	20.6	24.2	15.7	21.0
65 years	Number	127	138	122	116	102	605
	Per cent	22.5	24.4	19.5	18.3	17.1	20.3
Total	Number	231	259	218	242	182	1,132
	Per cent	21.6	24.0	20.0	21.0	16.5	20.6
Females							
55 years	Number	124	93	86	82	60	445
	Per cent	25.3	21.9	18.0	18.2	14.3	19.7
65 years	Number	95	94	99	102	80	470
	Per cent	23.4	23.0	20.0	20.4	17.7	20.8
Total	Number	219	187	185	184	140	915
	Per cent	24.4	22.4	19.0	19.4	16.1	20.2
Persons							
55 years	Number	228	214	182	208	140	972
	Per cent	22.9	22.9	19.3	21.4	15.1	20.4
65 years	Number	222	232	221	218	182	1,075
	Per cent	22.9	23.8	19.7	19.3	17.4	20.5
Total	Number	450	446	403	426	322	2,047
	Per cent	22.9	23.4	19.5	20.3	16.3	20.4

Notes

1. There were 14 recorded colonoscopies and 90 positive FOBT results with postcodes that do not correspond with the 2001 ABS IRSD classifications by postal area. These are regarded as missing data and are excluded from this table. Hence the sum of the columns may be less than the national total.
2. Percentages of colonoscopies performed are the number of colonoscopies reported following a positive FOBT as a proportion of the total number of positive FOBTs recorded.
3. Totals may not sum due to rounding caused by postcodes overlapping category boundaries. See Appendix C.

- The rate of colonoscopies reported following a positive FOBT result was highest in people living in less disadvantaged areas (23.4% for quintile 2 and 22.9% for quintile 1) and lowest in people living in the most disadvantaged areas (16.3% for quintile 5).

Table 2.4.4: Colonoscopies reported following a positive FOBT result, by age, sex and Aboriginal and Torres Strait Islander status

	Aboriginal and Torres Strait Islander		Non-Indigenous		Total	
	Number	Rate (per 100 positive FOBTs)	Number	Rate (per 100 positive FOBTs)	Number	Rate (per 100 positive FOBTs)
Males						
55 years	n.p.	n.p.	n.p.	n.p.	417	29.2
65 years	n.p.	n.p.	n.p.	n.p.	488	28.2
Total	7	29.2	898	28.7	905	28.7
Females						
55 years	n.p.	n.p.	n.p.	n.p.	365	28.1
65 years	n.p.	n.p.	n.p.	n.p.	377	29.6
Total	5	29.4	737	28.8	742	28.8
Persons						
55 years	n.p.	n.p.	n.p.	n.p.	782	28.7
65 years	n.p.	n.p.	n.p.	n.p.	865	28.8
Total	12	29.3	1,635	28.7	1,647	28.7

Notes

1. There were 414 recorded colonoscopies following a positive FOBT result and 4,382 valid FOBT results where Aboriginal and Torres Strait Islander status was not stated. These are regarded as missing data and are excluded from this table. Hence the sum of the areas may be less than the national total.
2. Aboriginal and Torres Strait Islander status is defined by the participant.
3. Rates of colonoscopies performed are the number of colonoscopies recorded following a positive FOBT as a percentage of the total number of positive FOBTs.
4. n.p. denotes numbers and rates suppressed due to small cell values.

- Numbers of colonoscopies recorded in the Register for Aboriginal and Torres Strait Islander people were too small at this point in the NBCSP to draw any conclusions on colonoscopy rates.

Table 2.4.5: Colonoscopies reported following a positive FOBT result, by age, sex and preferred correspondence language

	Preferred correspondence language					
	Language other than English		English		Total	
	Number	Rate (per 100 positive FOBTs)	Number	Rate (per 100 positive FOBTs)	Number	Rate (per 100 positive FOBTs)
Males						
55 years	40	22.0	493	20.9	533	21.0
65 years	41	21.1	567	20.1	608	20.2
Total	81	21.5	1,060	20.5	1,141	20.6
Females						
55 years	41	23.4	407	19.3	448	19.6
65 years	33	26.0	439	20.4	472	20.7
Total	74	24.5	846	19.9	920	20.2
Persons						
55 years	81	22.7	900	20.1	981	20.3
65 years	74	23.1	1,006	20.3	1,080	20.4
Total	155	22.9	1,906	20.2	2,061	20.4

Notes

1. Preferred correspondence language is self-reported to Medicare Australia through this or other programs. Participants are assumed to prefer to correspond in English unless otherwise indicated.
2. Rates of colonoscopies performed are the number of colonoscopies recorded following a positive FOBT as a percentage of the total number of positive FOBT results.

- The rate of colonoscopies performed after a positive FOBT result for people who prefer to correspond in a language other than English was 22.9%. This was very similar to the rate of 20.2% for people who prefer to correspond in English.

Table 2.4.6: Colonoscopies reported following a positive FOBT result, by age, sex and reported disability status

	Disability status				Total	
	Severe or profound limitation		No severe or profound limitation		Number	Rate (per 100 positive FOBTs)
	Number	Rate (per 100 positive FOBTs)	Number	Rate (per 100 positive FOBTs)		
Males						
55 years	27	15.1	502	22.8	529	22.2
65 years	41	15.5	564	21.8	605	21.3
Total	68	15.3	1,066	22.3	1,134	21.7
Females						
55 years	25	15.1	417	20.9	442	20.5
65 years	27	14.8	440	22.4	467	21.7
Total	52	14.9	857	21.6	909	21.1
Persons						
55 years	52	15.1	919	21.9	971	21.4
65 years	68	15.2	1,004	22.1	1,072	21.5
Total	120	15.2	1,923	22.0	2,043	21.4

Notes

1. There were 18 colonoscopies following positive FOBT results and 571 positive FOBT results where disability status was not stated. These are regarded as missing data and are excluded from this table. Hence the sum of the areas may be less than the national total.
2. A 'profound' disability status indicates that a person always needs assistance with self-care, movement and/or communications activities. A 'severe' disability status indicates that a person sometimes needs assistance with these activities.
3. Rates of colonoscopies performed are the number of colonoscopies recorded following a positive FOBT as a percentage of the total number of positive FOBTs.

- Numbers recorded in the Register of people with a disability were small; however, the rate of colonoscopies performed after a positive FOBT result for people reporting a severe or profound limitation was 15.2% compared with 22.0% of people reporting no severe or profound limitation.

Colonoscopy quality

As the NBCSP is the first program to collect data regarding colonoscopy procedures and outcomes for people with positive FOBT results, analyses of the quality of the colonoscopy procedures performed may provide a basis for future colonoscopy certification, accreditation and training to ensure continued provision of quality services.

Quality of the colonoscopy result is influenced by a number of factors:

- Adequate bowel preparation is important for the colonoscopist to clearly visualise the colon lining. Inadequate bowel preparation can result in missed lesions, cancelled procedures, increased procedural time, and a potential increase in complication rates.
- Improved effectiveness of colonoscopy is achieved with sedation.
- A complete colonoscopy is one which visualises the whole colon and requires unequivocal identification of the caecum. A colonoscopy is taken to have visualised the whole colon if the depth of insertion is recorded as reaching the caecum.
- The American Society for Gastrointestinal Endoscopy (ASGE) and the American College of Gastroenterology (ACG) Taskforce on Quality in Endoscopy (2006) stated that longer withdrawal times have been demonstrated to improve polyp detection rates, and, conversely, rapid withdrawal of the colonoscope may miss lesions and reduce the effectiveness of colon cancer prevention by colonoscopy. The Pilot Program noted the suggestion of the Taskforce that a standard withdrawal time of an average of at least 6–8 minutes is necessary to ensure that sufficient care has been taken to thoroughly inspect the large bowel for abnormalities. It further recommended that mean withdrawal times be monitored for analysis.

Table 2.4.7: Bowel preparation quality – colonoscopies reported following a positive FOBT result, by age, sex and adequacy of bowel preparation

	Adequate bowel preparation		Inadequate bowel preparation		All colonoscopies
	Number	Rate (per 100 colonoscopies)	Number	Rate (per 100 colonoscopies)	Number
Males					
55 years	481	90.2	52	9.8	533
65 years	531	87.3	77	12.7	608
Total	1,012	88.7	129	11.3	1,141
Females					
55 years	410	91.5	38	8.5	448
65 years	425	90.0	47	10.0	472
Total	835	90.8	85	9.2	920
Persons					
55 years	891	90.8	90	9.2	981
65 years	956	88.5	124	11.5	1,080
Total	1,847	89.6	214	10.4	2,061

Notes

1. Data are sourced from the Colonoscopy Report form section 4.1.
2. Rates are the number of colonoscopies recorded with adequate or inadequate bowel preparation following a positive FOBT result as a percentage of the total number of colonoscopies recorded.
3. Rates add to 100 across the row.

- Of the 2,061 colonoscopies reported, 1,847 (89.6%) had adequate bowel preparation. The remaining 214 examinations (10.4%) were considered by the colonoscopist to have been compromised by poor bowel preparation.
- Inadequate bowel preparation prior to colonoscopy was higher for males (11.3%) than for females (9.2%). Inadequate bowel preparation was higher for those aged 65 years (11.5%) than for those aged 55 years (9.2%).

Table 2.4.8: Colonoscopies reported following a positive FOBT result, by age, sex and depth of colonoscope insertion

		Complete colonoscopy			Incomplete colonoscopy							
		TI	CAEC	Total	ASC	HEP	TRAN	SPLN	DESC	SIG	RECT	Total
Males												
55 years	Number	227	303	530	0	1	0	0	1	0	1	3
	Per cent	42.6	56.8	99.4	0.0	0.2	0.0	0.0	0.2	0.0	0.2	0.6
65 years	Number	241	362	603	2	1	0	1	0	1	0	5
	Per cent	39.6	59.5	99.2	0.3	0.2	0.0	0.2	0.0	0.2	0.0	0.8
Total	Number	468	665	1,133	2	2	0	1	1	1	1	8
	Per cent	41.0	58.3	99.3	0.2	0.2	0.0	0.1	0.1	0.1	0.1	0.7
Females												
55 years	Number	203	244	447	0	0	0	0	0	1	0	1
	Per cent	45.3	54.5	99.8	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
65 years	Number	189	279	468	1	0	0	0	0	1	2	4
	Per cent	40.0	59.1	99.2	0.2	0.0	0.0	0.0	0.0	0.2	0.4	0.8
Total	Number	392	523	915	1	0	0	0	0	2	2	5
	Per cent	42.6	56.8	99.5	0.1	0.0	0.0	0.0	0.0	0.2	0.2	0.5
Persons												
55 years	Number	430	547	977	0	1	0	0	1	1	1	4
	Per cent	43.8	55.8	99.6	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.4
65 years	Number	430	641	1,071	3	1	0	1	0	2	2	9
	Per cent	39.8	59.4	99.2	0.3	0.1	0.0	0.1	0.0	0.2	0.2	0.8
Total	Number	860	1,188	2,048	3	2	0	1	1	3	3	13
	Per cent	41.7	57.6	99.4	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.6

Notes

1. Percentages are the number of colonoscopies recorded reaching each part of the bowel following a positive FOBT as a proportion of the total number of colonoscopies recorded.
2. Percentages add to 100 across the row (excluding 'all colonoscopies').
3. Abbreviations for depth of insertion are as follows:
 - TI terminal ileum
 - CAEC caecum
 - ASC ascending colon
 - HEP hepatic flexure
 - TRAN transverse colon
 - SPLN splenic flexure
 - DESC descending colon
 - SIG sigmoid colon
 - RECT rectum

- Of the 2,061 colonoscopies reported, 99.4% were recorded as visualising the whole colon.

Table 2.4.9: Colonoscopy withdrawal time, by age, sex and state and territory, in minutes

		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Males										
55 years	Mean	11	9	12	15	9	8	10	0	10
	95% CI of mean	10–12	8–9	10–14	12–18	8–11	6–9	7–12	0–0	10–11
	Median	10	8	9	12	8	8	8	0	9
65 years	Mean	11	9	15	15	12	13	12	0	12
	95% CI of mean	10–12	9–10	12–17	13–17	9–16	4–21	8–15	0–0	11–12
	Median	10	8	10	15	10	9	10	0	10
Total	Mean	11	9	13	15	11	11	11	0	11
	95% CI of mean	10–12	9–9	12–15	13–17	9–12	6–15	9–13	0–0	11–12
	Median	10	8	10	12	8	8	9	0	9
Females										
55 years	Mean	10	8	9	13	8	9	9	0	9
	95% CI of mean	9–10	7–9	8–11	11–14	7–9	6–11	8–11	0–0	9–10
	Median	9	7	8	10	8	8	8	0	8
65 years	Mean	10	8	12	13	11	8	10	0	10
	95% CI of mean	9–11	8–9	10–14	10–16	9–13	3–14	6–13	0–0	9–10
	Median	9	8	9	10	10	7	8	0	9
Total	Mean	10	8	11	13	10	9	10	0	10
	95% CI of mean	9–10	8–9	9–12	11–14	9–11	7–10	8–11	0–0	9–10
	Median	9	7	8	10	10	7	8	0	8
Persons										
55 years	Mean	10	8	11	14	9	8	10	0	10
	95% CI of mean	10–11	8–9	9–12	12–15	8–10	7–10	8–11	0–0	10–10
	Median	9	7	8	10	8	8	8	0	8
65 years	Mean	11	9	14	14	12	11	11	0	11
	95% CI of mean	10–11	8–9	12–15	13–16	10–13	6–16	8–13	0–0	10–11
	Median	9	8	10	12	10	7	9	0	9
Total	Mean	11	9	12	14	10	10	10	0	10
	95% CI of mean	10–11	8–9	11–13	13–15	9–11	7–12	9–12	0–0	10–11
	Median	9	8	9	11	10	7	9	0	9

Notes

1. Colonoscopies with missing withdrawal times are coded as 99 minutes by Medicare Australia. There were 83 colonoscopies with 99 recorded for colonoscopy withdrawal time.
2. State and territory refers to the residential state or territory of the patient.

- The mean withdrawal time of all colonoscopies recorded was 10 minutes with a 95% confidence interval of 10–11 minutes.
- There was a small significant difference in mean withdrawal times for males (11 mins) and females (10 mins).
- There were no colonoscopies with a valid withdrawal time recorded for patients residing in the Northern Territory.

Table 2.4.10: Proceduralists with mean colonoscopy withdrawal times falling in time groups, by state and territory, in minutes

Time group (minutes)		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
0–5	Number	13	6	3	0	2	1	1	0	26
	Per cent	7.3	6.7	6.3	0.0	6.7	12.5	8.3	0.0	6.7
6–10	Number	94	59	26	14	14	2	6	0	215
	Per cent	53.1	66.3	54.2	58.3	46.7	25.0	50.0	0.0	55.4
11–15	Number	41	14	12	7	7	3	4	0	88
	Per cent	23.2	15.7	25.0	29.2	23.3	37.5	33.3	0.0	22.7
16–20	Number	12	5	3	2	4	1	1	0	28
	Per cent	6.8	5.6	6.3	8.3	13.3	12.5	8.3	0.0	7.2
21–98	Number	17	5	4	1	3	1	0	0	31
	Per cent	9.6	5.6	8.3	4.2	10.0	12.5	0.0	0.0	8.0
Total	Number	177	89	48	24	30	8	12	0	388
	Per cent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0

Notes

1. There were 90 colonoscopies with missing withdrawal time, proceduralist provider number or proceduralist state. These were excluded from the analysis.
2. Percentages are the number of proceduralists with mean colonoscopy withdrawal times falling in each time group as a proportion of the total number of proceduralists who recorded colonoscopies.
3. Percentages add to 100 down the column (excluding 'Total').

- The majority of proceduralists (55.4%) had mean colonoscopy withdrawal times of 6–10 minutes. A further 22.7% had a mean withdrawal time of 11–15 minutes and 6.7% of proceduralists had a mean withdrawal time of 0–5 minutes.

Table 2.4.11: Colonoscopies with proceduralist's intention of re-examination due to inadequate colonoscopy, by age and sex

	Poor bowel preparation only		Incomplete colonoscopy only		Poor bowel preparation and incomplete colonoscopy		All intended colonoscopy repeats
	Number	Rate (per 100 colonoscopies)	Number	Rate (per 100 colonoscopies)	Number	Rate (per 100 colonoscopies)	Number
Males							
55 years	11	73.3	4	26.7	0	0.0	15
65 years	27	81.8	4	12.1	2	6.1	33
Total	38	79.2	8	16.7	2	4.2	48
Females							
55 years	6	66.7	3	33.3	0	0.0	9
65 years	6	54.5	4	36.4	1	9.1	11
Total	12	60.0	7	35.0	1	5.0	20
Persons							
55 years	17	70.8	7	29.2	0	0.0	24
65 years	33	75.0	8	18.2	3	6.8	44
Total	50	73.5	15	22.1	3	4.4	68

Notes

1. Rates are the number of colonoscopies recorded in each category in terms of 'poor bowel preparation', 'incomplete colonoscopy', 'poor bowel preparation and incomplete colonoscopy' with proceduralist's intention of re-examination as a percentage of the total number of intended colonoscopy repeats due to inadequate colonoscopy.
2. Rates add to 100 across the row.

- Of the 2,061 colonoscopies reported (see Table 2.4.7), there were 68 in which the proceduralist planned to perform another procedure due to an inadequate colonoscopy. Of these, 50 (73.5%) were due solely to poor bowel preparation, 15 (22.1%) due to an incomplete examination and 3 (4.4%) were due to a combination of both poor bowel preparation and incomplete examination.
- The percentage of colonoscopies that needed to be repeated solely due to poor bowel preparation was higher for males (79.2%) than for females (60.0%) and higher for those aged 65 years (75.0%) than for those aged 55 years (70.8%).
- The percentage of colonoscopies that needed to be repeated solely due to an incomplete colonoscopy was higher for females (35.0%) than for males (16.7%) and higher for those aged 55 years (29.2%) than for those aged 65 years (18.2%).

Table 2.4.12: Abnormalities found at colonoscopy, by age and sex

	No abnormality found		Abnormality found						All colonoscopies
			Suspected cancers		1 or more polyps		Other diagnoses		
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number
Males									
55 years	91	17.1	26	4.9	332	62.5	82	15.4	531
65 years	65	10.7	32	5.3	417	68.7	93	15.3	607
Total	156	13.7	58	5.1	749	65.8	175	15.4	1,138
Females									
55 years	136	30.5	17	3.8	178	39.9	115	25.8	446
65 years	89	18.9	32	6.8	237	50.3	113	24.0	471
Total	225	24.5	49	5.3	415	45.3	228	24.9	917
Persons									
55 years	227	23.2	43	4.4	510	52.2	197	20.2	977
65 years	154	14.3	64	5.9	654	60.7	206	19.1	1,078
Total	381	18.5	107	5.2	1,164	56.6	403	19.6	2,055

Source: Colonoscopy Report form section 4.4–4.7

Notes

1. There were 6 colonoscopies in which one or more abnormalities were found but the type of abnormality was not specified or included unreliable abnormality records.
2. An unreliable abnormality record is one where abnormal examination was indicated but no information on suspected cancer, polyps or other diagnoses are included.
3. Percentages are the number of colonoscopies recorded with/without abnormalities as a percentage of the total number of colonoscopies recorded.
4. Abnormalities are mutually exclusive. Where a participant has multiple abnormalities, classification is made according to risk. Suspected cancers have highest risk, followed by polyps. Other diagnoses are classified with lowest risk.

- Of the 2,061 colonoscopy reports recorded, there were 2,055 with abnormality data recorded. Of these, 107 (5.2%) had suspected cancers detected.
- The percentage of suspected cancers was 5.9% for those aged 65 years compared with 4.4% for those aged 55 years.
- There were 1,164 colonoscopies (56.6%) where one or more polyps were detected. The percentage of colonoscopies reported with polyps detected was higher for males (65.8%) than for females (45.3%).
- There were no abnormalities found in 381 (18.5%) colonoscopies reported.

2.5 Overall outcomes

This section presents the overall outcomes from the National Program as at 31 July 2007 at a participant level based on people who returned a positive FOBT and who proceeded to colonoscopy. This section differs from the previous sections which presented FOBT test, primary health care consultation and colonoscopy-level data.

Program outcomes at key pathway points for the National Program are summarised in Figure 2.5.1. Table 2.5.1 tabulates the current screening outcomes for all people invited to participate in the National Program by state and territory.

For participants who returned more than one FOBT the result counted was selected 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 is classified as having confirmed cancer, suspected cancer, adenoma or neither cancer nor adenoma. For participants with more than one polyp or cancer found at colonoscopy the most serious result was counted.

Data for colonoscopy outcomes are 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 participant may have a Colonoscopy Report form, a Histopathology Report form or both recorded in the Register. Outcomes are classified as follows:

- Confirmed cancers are 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 are abnormalities detected at colonoscopy that the colonoscopist suspects to be cancer but are not yet confirmed by histopathology.
- Where a person has a confirmed or suspected cancer, this is given higher priority than adenomas. Adenoma classifications are described in Appendix B.
- Polyps awaiting histopathology are those people with polyps detected at colonoscopy that have not yet had an associated Histopathology Report form recorded.
- Participants recorded as having no cancer or adenoma are those participants that had no polyps or suspected cancers detected at colonoscopy, or had polyps detected at colonoscopy that were classified as non-adenomous by histopathology.

Table 2.5.1 is an interim one only, as virtually all cancers must ultimately be confirmed by pathology. Due to time lags in the pathway, positive predictive value is not able to be calculated until the end of the first phase of the NBCSP when all data have had sufficient time to be reported and recorded in the Register.

Summary

- Of the 436,153 invitation packs sent to eligible people since 7 August 2006, 146,301 people (33.5%) had a completed FOBT recorded by 31 July 2007.
- Of the people who had returned completed FOBT kits by 31 July 2007, there were 10,111 (6.9%) who had a positive FOBT result, 133,069 (91.0%) who had a negative FOBT result, 388 (0.3%) were inconclusive and 2,733 (1.9%) have no result recorded as the kit was incorrectly completed and could not be analysed. People who returned an incorrectly completed FOBT kit were sent another FOBT kit. People who received an inconclusive FOBT result were also sent another FOBT kit. Those people listed as having an inconclusive result or no result are those people who have not yet returned the subsequent kit.
- Of the 10,111 participants that had a positive FOBT result recorded, 7,993 (79.1%) were not recorded as having a colonoscopy by 31 July 2007.
- Of the 2,118 participants with a positive FOBT result that had colonoscopy details reported by 31 July 2007, there were 4 confirmed and 105 suspected cancers and 226 confirmed adenomas.
- There were 993 people with polyps detected at colonoscopy with histopathology results not yet received by the Register.

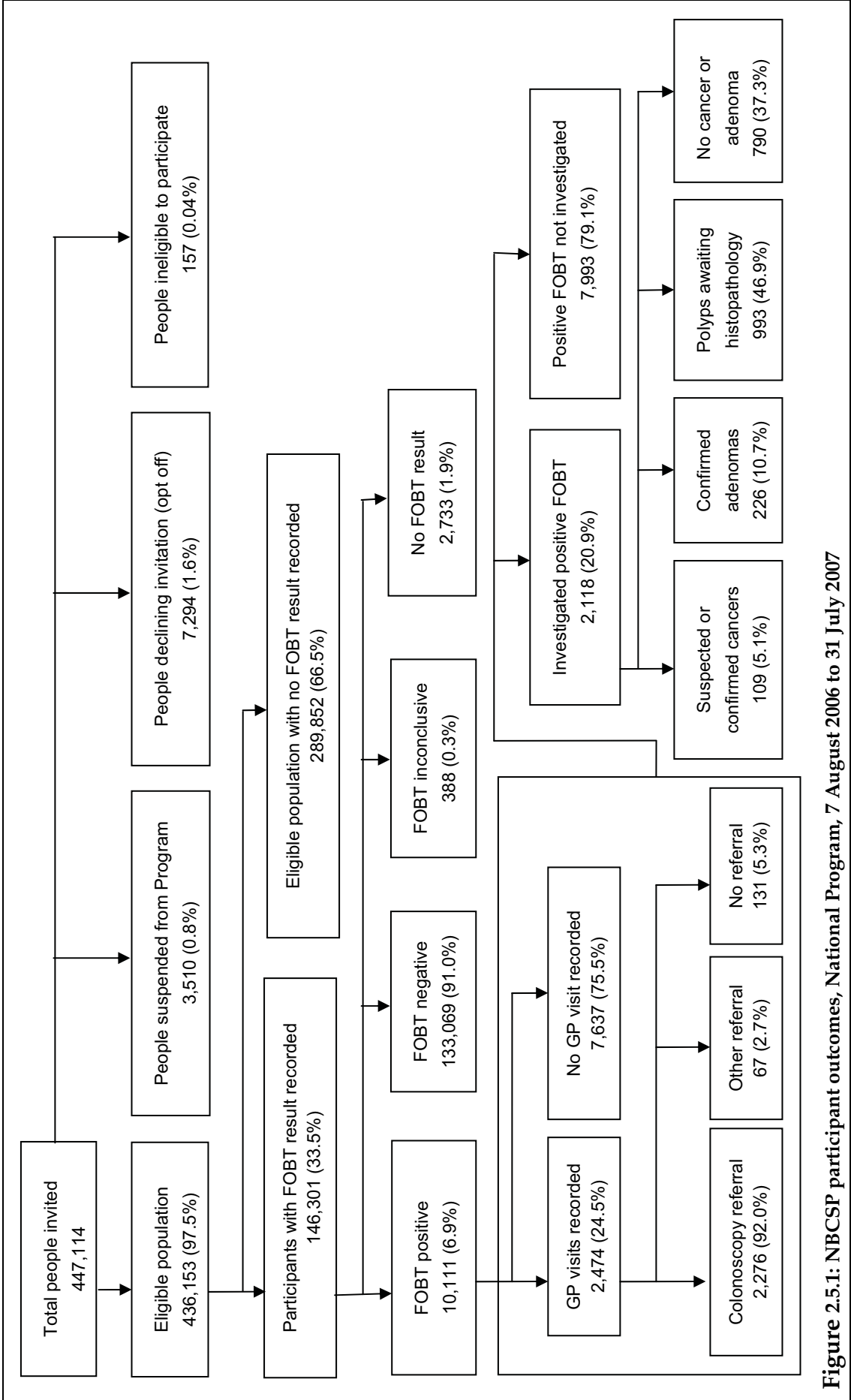


Figure 2.5.1: NBCSP participant outcomes, National Program, 7 August 2006 to 31 July 2007

Table 2.5.1: Preliminary overall participant summary outcomes, by state and territory, National Program, 7 August 2006 to 31 July 2007

State	FOBT positive										
	Invitations issued ^(a)	Number screened ^(b)	Total positive FOBT	Colonoscopy not done or not recorded	No cancer or adenoma ^(c)	Polyps awaiting histo-pathology ^(d)	Confirmed diminutive adenoma ^(e)	Confirmed small adenoma ^(e)	Confirmed advanced adenoma ^(e)	Suspected cancer ^(f)	Confirmed cancer ^(g)
NSW	178,487	63,684	4,207	3,233	373	486	14	10	46	45	0
Vic	113,739	38,905	2,772	2,220	240	219	14	9	38	31	1
Qld	68,920	19,783	1,393	1,139	71	101	16	18	34	12	2
WA	36,435	12,348	884	727	37	98	5	3	9	4	1
SA	20,538	5,843	396	308	38	40	1	0	4	5	0
Tas	7,179	2,038	209	180	15	7	1	0	4	2	0
ACT	8,472	3,222	212	148	16	42	0	0	0	6	0
NT	2,383	478	38	38	0	0	0	0	0	0	0
Australia	436,153	146,301	10,111	7,993	790	993	51	40	135	105	4

(a) 'Invitations issued' is the number of eligible people who were issued an invitation to screen in the NBCSP.

(b) 'Number screened' is the number of people who have completed an FOBT kit and results were forwarded to the Register.

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

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

(e) Confirmed adenoma figures are based on a combination of the colonoscopy and histopathology forms for a person received by the Register.

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

(g) Cancer confirmed by histopathology.