Appendices

Appendix Table 1: CRC screening test attributes and levels

Attribute	Levels
Ability to reduce colorectal incidence and mortality	40%, 60%, 80%
Discomfort	Mild, Moderate
Nature of test	-No prep time, home test, no recovery time -1/2 day prep time, test in medical facility, 1 hour recovery -1 day prep time, test in medical facility, 24 hour recovery
Frequency	Every year, Every 5 years, Every 10 years
Risk of major complications over 10 years	1 in 10,000 10 in 10,000 50 in 10,000
Out of pocket costs over 10 years	$100 $250 $500

Appendix 2: Example of a conjoint analysis task

Which option do you prefer?

Feature	Option 1	OR	Option 2
Reduces colon cancer risk by	80%		60%
Discomfort of test	Medium		Low
Nature of test	- Half-day preparation - Test in medical facility - 1 hour recovery		- Full day preparation - Test in medical facility - 24 hour recovery
Frequency of test	Each year		Every 10 years
Risk of complications	50 in 10,000		10 in 10,000
Out of pocket cost over 10 years	$500		$250

Prefer Option 1	No Preference	Prefer Option 2
☐	☐	☐

Appendix 3: Information provided to participants

•In this research study, we will be talking about colon cancer screening. The colon is the large intestine or bowel. Colon cancer can affect both men and women, and becomes more common after age 50.

•It is recommended that adults ages 50-75 have some form of screening for colon cancer. Screening means checking for the condition before it causes any symptoms. There are several ways to be screened, and no one way is clearly best for everyone.

•Your answers to the questions in this packet will help us learn more about the information men and women need to make decisions about how to be screened for colon cancer.

•While answering questions in this packet, please imagine that your doctor would like you to make a decision about colon cancer screening.

•The lifetime chance of getting colon cancer is about 6 out of 100. The lifetime chance of dying from colon cancer is about 3 out of 100.

•Testing for colon cancer beginning at age 50 reduces the chance of developing colon cancer or dying from it.

•There are several effective ways to be tested for colon cancer.

•If your test for colon cancer shows a problem, you will need to have other tests or treatments.

•The best test for you depends on how you feel about different features of the tests themselves.

We are going to ask you about 6 different features of colon cancer screening tests. Please answer the questions to the best of your ability. There are no right or wrong answers. We just want to know what you think. When you are finished, please go on to the Post Exercise Survey.

•Ability to reduce the chance of developing and dying from colon cancer- This is the percent reduction in the chance of developing and dying from colon cancer over the next 10 years. For example, a 40% reduction in risk would mean that your chances of developing or dying from colon cancer in the next 10 years would go from 20 in 1,000 to 12 in 1,000.

•Discomfort - The amount of physical or emotional discomfort, including pain, that comes from preparing for, having, or recovering from the test.

•Nature of the test - Where the test is done (at home or in a special medical facility) and how long it takes to prepare for, do, and recover from the test.

•Frequency - How often the test needs to be done to be effective.

•Risk of major complications over 10 years - The chance of a problem requiring hospitalization from the test itself or from a required follow-up test over 10 years. Most commonly, these complications are bleeding or when the test causes a hole in your colon.

•Out of pocket costs over 10 years- The amount of money OVER 10 YEARS that you would have to pay and that would not be covered by your insurance.

Appendix 4: Importance scores for participants in conjoint analysis arm*

Ability to reduce CRC incidence and mortality	Discomfort associated with screening	Nature of the screening test	Frequency of the screening test	Complications associated with screening	Out of pocket costs
68.0	1.2	9.8	1.8	5.9	13.3
67.5	1.8	10.2	2.2	5.5	12.8
67.1	1.7	11.4	2.1	5.1	12.6
67.1	0.8	11.7	1.3	5.8	13.3
66.8	1.6	10.5	1.9	4.7	14.5
66.6	1.3	11.5	2.0	5.5	13.2
66.0	1.1	10.7	3.2	5.2	13.9
65.8	2.7	12.1	0.5	5.2	13.7
65.8	1.5	11.2	2.1	5.5	13.9
58.1	1.6	17.0	6.2	5.0	12.2
55.3	2.6	4.3	13.4	10.9	13.6
50.2	2.8	3.5	9.3	15.7	18.4
49.4	3.5	2.3	10.7	16.2	17.8
45.2	2.4	13.2	24.6	8.5	6.2
41.8	0.4	11.9	22.7	19.4	3.9
41.7	2.7	11.1	22.0	13.7	8.8
41.6	8.4	11.3	11.7	6.1	21.0
40.8	0.5	14.5	21.9	11.8	10.5
38.4	7.9	26.2	8.4	7.6	11.6
37.6	2.5	17.8	18.7	15.8	7.6
37.2	3.4	18.6	9.3	16.1	15.4
35.7	5.3	24.8	23.8	4.5	5.8
35.6	4.3	12.9	22.0	11.0	14.2
34.0	3.1	26.0	19.1	9.2	8.6
33.4	1.8	18.0	21.0	10.4	15.4
31.3	5.0	6.3	36.1	18.1	3.1
30.8	2.1	26.4	21.6	10.7	8.4
29.7	0.1	20.6	30.0	10.5	9.1
29.5	1.3	13.1	21.9	10.2	24.1
28.5	6.1	8.6	34.0	17.4	5.5
28.2	1.8	20.5	30.2	9.9	9.5
28.1	3.5	17.3	35.6	7.5	8.1
27.9	10.2	46.5	1.4	2.3	11.6
21.6	0.5	21.6	18.3	20.9	17.1
20.7	7.6	50.2	12.7	6.5	2.3
20.3	5.8	27.3	14.7	14.7	17.3
18.6	14.5	37.8	10.0	6.6	12.6
18.4	1.8	9.3	29.7	30.0	10.9
17.9	0.4	23.2	22.5	21.8	14.3
17.6	0.9	22.6	25.3	21.2	12.3
16.6	4.5	26.9	32.1	14.6	5.3
16.2	7.4	24.3	34.0	14.2	3.9

15.6	1.4	23.7	28.5	19.8	11.0
15.3	3.8	62.9	5.6	5.1	7.4
14.2	6.5	24.8	36.8	14.0	3.7
11.6	6.0	50.6	13.7	8.5	9.5
10.1	33.9	21.7	18.8	5.3	10.3
10.0	4.0	15.4	18.5	36.7	15.5
9.1	3.2	43.4	20.2	14.0	10.3
8.7	2.2	43.4	23.4	13.2	9.2

* each row represents one participant's importance levels; rows are ordered (top to bottom) based on importance assigned to ability to reduce CRC incidence and mortality

Appendix 5: Previous studies of CRC screening test attribute importance

Study	Technique	Most important attribute	Second most important attribute	Third most important attribute	Fourth most important attribute
Marshall et al 2007[25]	DCE	Sensitivity	Specificity	Preparation	Process
Hawley et al 2008[13]	Conjoint analysis	Nature of the test (33%)	Accuracy (19%)	Frequency (17%)	Discomfort (16%)
Debourcy et al 2008[26]	Ranking (most important only)	Accuracy (43%)	Ease, convenience, time (30%)	Comfort / invasiveness (16%)	Frequency (7%)
Shokar et al 2010[27]	Rating and Ranking	Accuracy	Scientific evidence	Amount of colon examined	Need for sedation / Need for further testing
Imaedea et al 2010[28]	Ranking using Maximum Differences Scaling	Sensitivity	Risk of a tear	Need for a second test	Need for sedation

CRC=colorectal cancer
DCE= discrete choice experiment