Colorectal Cancer Screening in Vietnamese Americans

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Colorectal Screening in Vietnamese: A Controlled Trial
1 RO1 CA 100856-01

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Outline

- ~~Background~~
- Significance for Vietnamese Americans
- Study Aims
- Intervention
- Evaluation
- Measurements
- Results of pre-intervention survey

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Why should we be concerned about colorectal cancer?

- Second leading cause of cancer deaths
- Fourth most common cancer in the U.S.
- Each year
  - about 150,000 have the disease
  - 60,000 die of it

•(American Cancer Society, 2007).

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Why should we be concerned about colorectal cancer screening?

- Can reduce incidence and mortality
- by removing premalignant polyps and detecting early cancers

(Newcomb, 1992; Selby, 1992; Selby, 1993; Mandel, 1993; Mandel, 2000; Hardcastle, 1996).

- If detected early, 90% can be cured

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Why should we be concerned about CRC screening in Vietnamese Americans?

- Third most common cancer in both Vietnamese men and women in California (Cockburn, 2004).
- Age adjusted incidence rates have increased for Vietnamese in the Greater San Francisco Bay Area (Gomez, 2005).
- Colorectal screening rates are lower in Vietnamese than in non-Hispanic whites (Wong, 2005).

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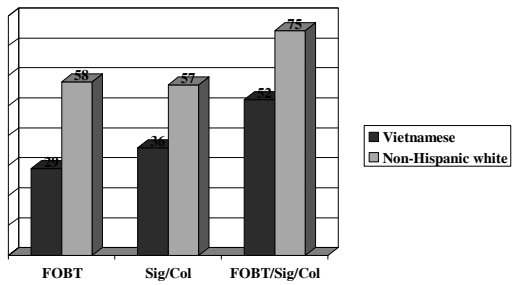
Proportions of ever screened

Patients aged 50 and older (Wong, 2005)



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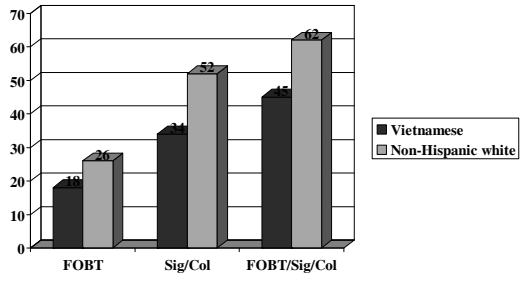
Proportions of being up-to-date

Patients aged 50 and older (Wong, 2005)



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Study Aims

are to

- Increase colorectal cancer screening rates among Vietnamese Americans aged 50 to 74
- Evaluate the effectiveness of an intervention
- Identify factors associated with colorectal cancer screening among Vietnamese Americans

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Public intervention

- Distribution of
  - Booklet
  - Promotional item pen light
- Vietnamese-language media campaign
  - Newspapers
  - Radio
  - Television

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Provider intervention

- Continuing Medical Education seminars
- Distribution of
  - provider newsletters
  - provider videos
  - patient counseling booklet

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For Long Life, Test The Colon!

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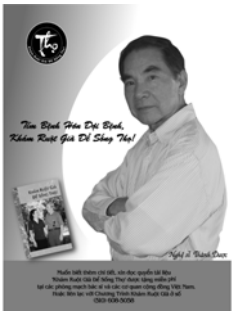

Logo: Longevity

Screening for a cancer is better than waiting for it to develop

For long life, Test the colon!

For more information, please read booklet "For Long Life, Test the Colon" that was distributed free at Vietnamese doctor's offices and community- based organizations or contact the Colon Screening Project at : (510) 608-5058

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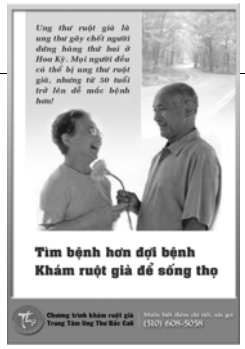

Colon cancer is the second most common cause of cancer deaths in the United States. Anyone can get colon cancer, though people over the age of 50 are more likely to get it!

Screening for a cancer is better than waiting for it to develop.

For long life, Test the colon!

Logo: "THO" (Longevity)
Colon Screening Project
Northern California Cancer Center
For more information, please contact:
(510) 608-5058

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If you are age 50 or over, you need to get tested even if you feel healthy.

Screening for a cancer is better than waiting for it to develop.

For long life, Test the colon!

Logo: "THO" (Longevity)
Colon Screening Project
Northern California Cancer Center
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Screening can help find and prevent colon cancer effectively.

Screening for a cancer is better than waiting for it to develop.

For long life, Test the colon!

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If you are age 50 and over, you should get colon cancer screening tests periodically. This is a serious disease but it can be cured if it is detected early."

Dr. Khanh Kim Nguyen, MD

Gastroenterologist

Screening for a cancer is better than waiting for it to develop.

For long life, Test the colon!

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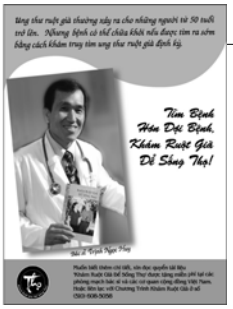

"Colon cancer occurs more often in persons age 50 and over. However, it can be treated successfully and even cured if it is detected early by periodic colon screening tests."

Dr. Huy Ngoc Trinh, MD

Screening for a cancer is better than waiting for it to develop.

For long life, Test the colon!

Logo: Tho (Longevity)

For more information, please read booklet "For Long Life, Test the Colon" that was distributed free at Vietnamese doctor's offices and community- based organizations or contact the Colon Screening Project at : (510) 608-5058

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" I got colon cancer, but treatment was effective and it was cured because it was detected early.

I strongly recommend that if you are age 50 and over, you should get periodic colon cancer screening tests for a happy and long life."

Mr. Can Tien Le

Screening for a cancer is better
than waiting for it to develop.
For long life, Test the colon!

Logo: "THO": Longevity
Colon Screening Project
Northern California Cancer Center

For more information, please contact:
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Promotional Material – Pen Light

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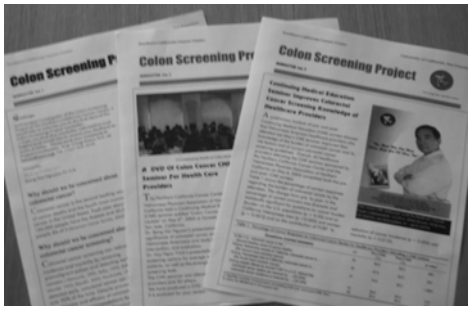
Provider Newsletters



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Evaluation

- **Public Intervention:** Quasi-experimental design
  - **Intervention area:**Alameda and Santa Clara Counties, California
  - **Control area:** Harris County, Texas
- **Provider Continuing Medical Education Seminars:** Pre- and Post- test design

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Public Intervention Methods: Sampling

- Sampling frames include individuals listed in the study area telephone directories with Vietnamese surnames.
- A cohort design: follow same individual in the pre- to post-intervention surveys.

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Public Intervention Methods: Eligibility

- Self-identified Vietnamese
- Aged 50 to 74
- Lived in Alameda and Santa Clara Counties, California and Harris County, Texas
- Understood either English or Vietnamese
- Intended to be in the study areas for 2 yrs

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Methods: Survey questions

1) had ever heard of
2) had ever had
3) if had, date of the most recent test
4) If Dr. recommends a test, will have one
5) If Dr. will not mention a test, would ask for one

For fecal occult blood test (FOBT), sigmoidoscopy (sig), and colonoscopy (col)

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Methods: Measurements

Measurements	Definitions
1. Recognition	1. Having ever heard of
2. Receipt	2. Having ever had
3. Currency	3. Being up to date with
4. Intention to accept a CRC screening test	4. Willing to accept doctors' recommendation
5. Intention to ask for CRC screening test	5. Would ask for CRC test if doctor does not mention
6. Intention to ask for CRC screening test in the recommended intervals	6. Willing to ask for CRC test in the recommended intervals

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Results of Pre-intervention Survey

- Demographics
- Healthcare characteristics
- Knowledge of and attitudes toward colon cancer and screening
- Colorectal cancer screening rates
- Predictors of colorectal screening

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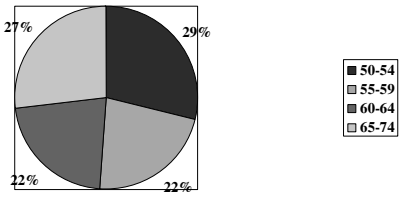
Demographics: Age (years)



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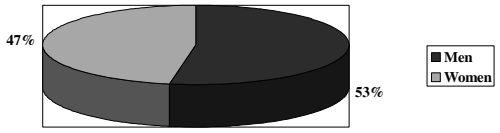
Demographics: Gender



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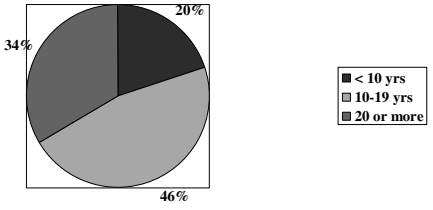
Demographics: Years in U.S.



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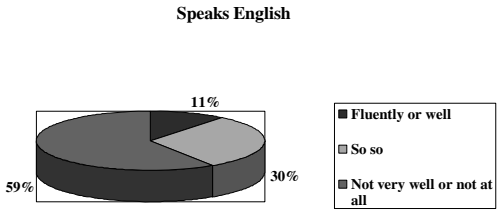
Demographics: English Language Proficiency



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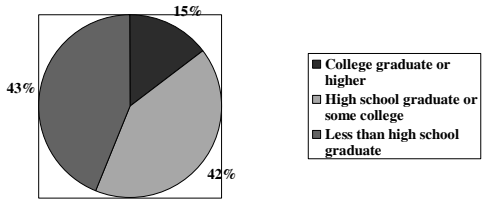
Demographics: Education



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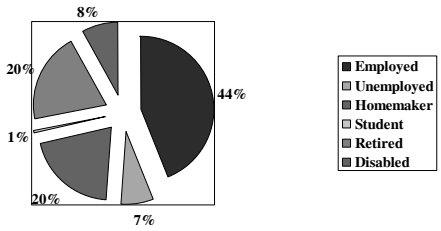
Demographics: Employment status



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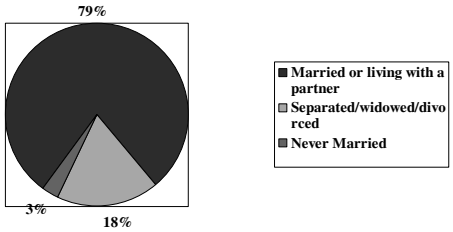
Demographics: Marital Status



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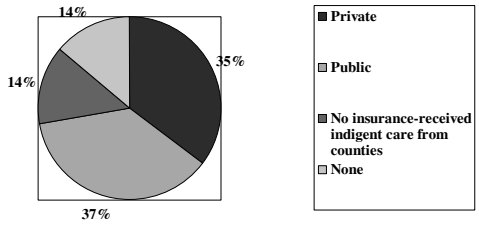
Demographics: Health Insurance



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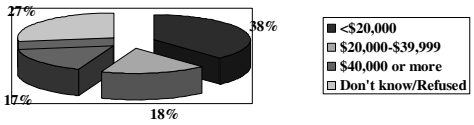
Demographics: Annual Household Income



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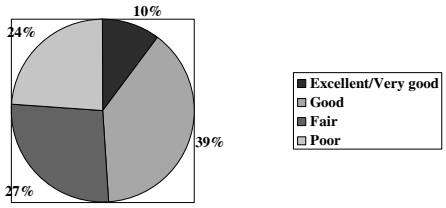
Healthcare characteristics: Health status



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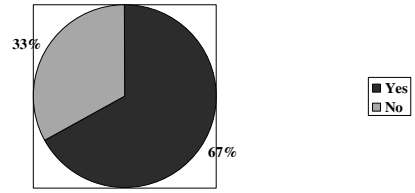
Healthcare characteristics: Had a particular place of care



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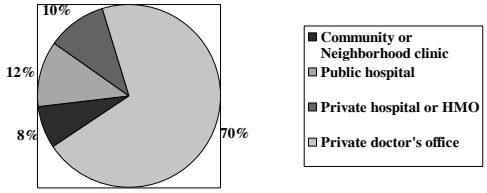
Healthcare characteristics: A particular place of care is



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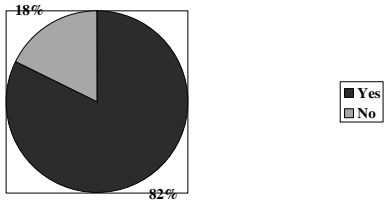
Healthcare characteristics: Had a personal doctor



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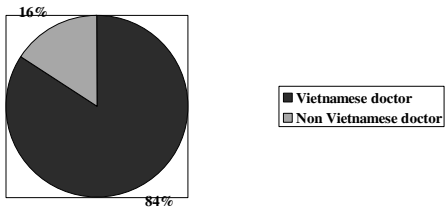
Healthcare characteristics: Ethnicity of personal doctor



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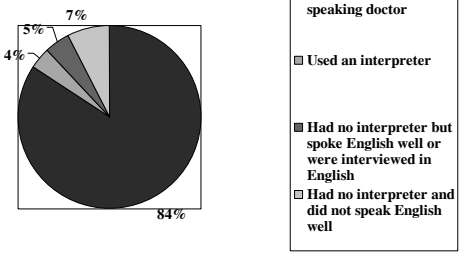
Healthcare characteristics: Language access



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Knowledge of and attitudes toward colorectal cancer and screening

	N	%
Knew someone with colon cancer	141	23
Had ever heard of colon cancer	638	**74**
Had heard of colon polyp	434	**50**
Believed colon cancer can be cured	565	88
Were worried about colon cancer	261	41
Had ever thought might get colon cancer	220	34

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Knowledge of Colorectal Cancer and Screening

- Although three quarter (74%) of respondents had heard of “colon cancer”
- only half had ever heard of “colon polyps”

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Attitudes toward colorectal screening

	N	%
Thought need FOBT if feel healthy	374	**43**
Were afraid FOBT might find cancer	123	14
Thought need sig or col if feel healthy	311	**36**
Were afraid sig or col find cancer	114	13
Thought sig or col painful	330	**38**
Thought sig or col prep troublesome	325	**37**

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Attitudes

- Less than half (43%) thought they need FOBT if they feel healthy
- And even a smaller proportion (36%) thought they need sigmoidoscopy or colonoscopy if they feel healthy.

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Attitudes

- Potential barriers against sigmoidoscopy and colonoscopy included concerns regarding pain (38%) and troublesome preparation (37%)

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Colorectal Screening Rates

- among Vietnamese Americans were low.

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Colorectal Screening Rates: Recognition--Having ever heard of

	FOBT	Sig Col	Any test
Recognition	55%	40% 36%	71%

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Colorectal Screening Rates: Receipt-- Having ever had

	FOBT	Sig	Col	Any test
Receipt	48%	20%	26%	62%

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Colorectal Screening Rates: Last test were done because

	FOBT	Sig	Col
Routine	76%	56%	52%
Symptoms	10%	18%	21%
Follow up	10%	24%	25%

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Colorectal Screening Rates: Currency-- Being up-to-date

	FOBT	Sig	Col	Any test
Currency	25%	16%	23%	46%

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Colorectal Screening Rates: Intention

	FOBT	Sig	Col	Any test
If doctor recommends test, will have one	85%	76%	75%	92%
If doctor not mention test, would ask for one	26%	20%	21%	39%
Intention to screen in recommended intervals	14%	10%	13%	26%

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Factors Associated with Ever Being Screened for CRC (1)

Adjusted for gender, education, years in U.S., English Fluency, health status, and all variables tabulated

Demographics (1)	FOBT (n=832) OR 95%CI	Sigmoid. (n=828) OR 95%CI	Colon (n=828) OR 95%CI	Any test (n=827) OR 95%CI
Age group 65-74 yrs	1.3 (0.9, 1.9)	2.0 (1.3, 3.3)	0.9 (0.6, 1.4)	1.3 (0.9, 2.1)
50-64 yrs	1.0	1.0	1.0	1.0
Marital status Married	1.0 (0.7, 1.5)	1.4 (0,8, 2.3)	1.4 (0.9, 2.1)	1.2 (0,8, 1.8)
Unmarried	1.0	1.0	1.0	1.0
Household Inc. <$20,000	0.6 (0.4, 1.0)	1.2 (0.7, 2.0)	0.8 (0.5, 1.4)	0.7 (0.4, 1.1)
DK/Refused	0.8 (0.5, 1.2)	1.1 (0.6, 2.0)	0.7 (0.4, 1.3)	0.9 (0.6, 1.5)
>= $20,000	1.0	1.0	1.0	1.0

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Factors Associated with Ever Being Screened for CRC (2)

Adjusted for gender, education, years in U.S., English Fluency, health status, and all variables tabulated

Demographics (2)	FOBT (n=832) OR 95%CI	Sigmoid. (n=828) OR 95%CI	Colon (n=828) OR 95%CI	Any test (n=827) OR 95%CI
Emp Status Employed	0.7 (0.5, 1.0)	1.2 (0.8, 2.0)	0.5 (0.3, 0.9)	0.6 (0.4, 0.8)
Not Employed	1.0	1.0	1.0	1.0
Residence California	2.1 (1.5, 2.9)	1.8 (1.2, 2.6)	1.0 (0.7, 1.4)	2.3 (1.6, 3.2)
Texas	1.0	1.0	1.0	1.0
Health Private ins.	0.9 (0.6, 1.5)	1.0 (0,5, 2.0)	2.6 (1.3, 5.0)	1.3 (0,8, 2.2)
Coverage Public ins.	1.4 (0,8, 2.4)	0.8 (0.4, 1.6)	2.1 (1.1, 4.3)	1.6 (0.9, 2.7)
Indigent care	1.7 (0.9, 2.9)	0.7 (0.3, 1.6)	0.6 (0.2, 1.4)	1.3 (0.7, 2.3)
None	1.0	1.0	1.0	1.0

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Factors Associated with Ever Being Screened for CRC (3)

Adjusted for gender, education, years in U.S., English Fluency, health status, and all variables tabulated

Healthcare Characteristics	FOBT (n=832) OR 95%CI	Sigmoid. (n=828) OR 95%CI	Colon (n=828) OR 95%CI	Any test (n=827) OR 95%CI
Had a reg. place of care	1.1 (0.8, 1.5)	1.6 (1.0, 2.5)	1.5 (1.0, 2.3)	1.3 (0.9, 1.9)
Had a personal doctor	1.6 (0.9, 3.0)	2.5 (1.2, 5.3)	1.3 (0.6, 2.7)	2.2 (1.2, 4.1)
Personal doctor was Vietnamese	0.8 (0.5, 1.3)	0.5 (0,3, 0.9)	0.8 (0.5, 1.3)	0.7 (0,4, 1.2)

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Factors Associated with Ever Being Screened for CRC (4)

Adjusted for gender, education, years in U.S., English Fluency, health status, and all variables tabulated

Knowledge and Attitudes (1)	FOBT (n=832) OR 95%CI	Sig. (n=828) OR 95%CI	Col. (n=828) OR 95%CI	Any test (n=827) OR 95%CI
Had heard of colon polyps	1.5 (1.1, 2.0)	1.7 (1.1, 2.5)	1.9 (1.3, 2.7)	1.7 (1.2, 2.3)
Worried about colon cancer	1.3 (0.9, 1.9)	1.2 (0.8, 1.8)	1.2 (0.8, 1.8)	1.4 (1.0, 2.1)
Thought might get colon cancer	0.9 (0.6, 1.3)	1.5 (1,0, 2.4)	1.4 (1.0, 2.2)	1.1 (0,7, 1.7)
Thought need FOBT if feel healthy	1.4 (1.0, 1.9)			1.3 (0,9, 2.0)
Afraid FOBT might find cancer	1.0 (0.7, 1.6)			0.8 (0,5, 1.5)

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Factors Associated with Ever Being Screened for CRC (5)

Adjusted for gender, education, years in U.S., English Fluency, health status, and all variables tabulated

Knowledge and Attitudes (2)	FOBT (n=832) OR 95%CI	Sig. (n=828) OR 95%CI	Col. (n=828) OR 95%CI	Any test (n=827) OR 95%CI
Thought need sig/col if feel healthy		1.0 (0,7, 1.5)	1.8 (1.2, 2.6)	1.0 (0,7, 1.5)
Afraid sig/col might find cancer		0.6 (0.3, 1.1)	0.9 (0.6, 1.6)	1.0 (0.5, 1.9)
Thought sig/col painful		1.1 (0,8, 1.7)	0.5 (0.3, 0.7)	0.8 (0,5, 1.1)
Thought sig/col preparation troublesome		1.5 (1,0, 2.2)	2.7 (1.9, 4.0)	1.6 (1,2, 2.3)

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Factors Positively Associated with Receipt of CRC Screening Tests

- Being in the older age group (65 to 74 years)
- Residing in California
- Having private or public insurance
- Having a regular place of care
- Having a personal doctor
- Having heard of colon polyps
- Worrying about colon cancer
- Thinking might develop colon cancer
- Thinking need FOBT even if feeling healthy
- Thinking need sig/col even if feeling healthy
- Thinking sig/col preparation troublesome

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Factors Negatively Associated with Receipt of CRC Screening Tests

- Having annual household income less than $20,000
- Being employed
- Having a Vietnamese doctor
- Thinking sigmoidoscopy/colonoscopy painful

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Factors Associated with Being Up-to-Date with CRC Screening (1)

Adjusted for gender, education, years in U.S., English Fluency, health status, and all variables tabulated

Demographics (1)	FOBT (n=832) OR 95%CI	Sigmoid. (n=828) OR 95%CI	Colon (n=828) OR 95%CI	Any test (n=827) OR 95%CI
Age group 65-74 yrs	0.9 (0.6, 1.4)	1.7 (1.0, 2.8)	0.8 (0.5, 1.3)	1.0 (0.7, 1.4)
50-64 yrs	1.0	1.0	1.0	1.0
Marital status Married	0.8 (0.5, 1.2)	1.9 (1,1, 3.5)	1.6 (1.0, 2.6)	1.2 (0,8, 1.7)
Unmarried	1.0	1.0	1.0	1.0
Household Inc. <$20,000	1.0 (0.6, 1.6)	1.2 (0.7, 2.2)	0.8 (0.5, 1.3)	1.0 (0.7, 1.5)
DK/Refused	1.1 (0.6, 1.9)	1.2 (0.6, 2.3)	0.7 (0.4, 1.2)	1.0 (0.6, 1.6)
>= $20,000	1.0	1.0	1.0	1.0

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Factors Associated with Being Up-to-Date with CRC Screening (2)

Adjusted for gender, education, years in U.S., English Fluency, health status, and all variables tabulated

Demographics (2)	FOBT (n=832) OR 95%CI	Sigmoid. (n=828) OR 95%CI	Colon (n=828) OR 95%CI	Any test (n=827) OR 95%CI
Emp. Status Employed	0.7 (0.5, 1.1)	1.2 (0.7, 2.1)	0.6 (0.4, 1.0)	0.7 (0.5, 1.1)
Not Employed	1.0	1.0	1.0	1.0
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Coverage Public ins.	1.6 (0,9, 3.1)	0.8 (0.4, 1.6)	2.1 (1.1, 4.6)	1.9 (1.1, 3.3)
Indigent care	2.6 (1.4, 5.1)	0.7 (0.3, 1.7)	0.6 (0.2, 1.4)	1.6 (0.9, 3.0)
None	1.0	1.0	1.0	1.0

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Factors Associated with Being Up-to-Date with CRC Screening (3)

Adjusted for gender, education, years in U.S., English Fluency, health status, and all variables tabulated

Healthcare Characteristics	FOBT (n=832) OR 95%CI	Sigmoid. (n=828) OR 95%CI	Colon (n=828) OR 95%CI	Any test (n=827) OR 95%CI
Had a reg. place of care	1.3 (0.9, 1.9)	1.8 (1.1, 3.1)	1.8 (1.1, 2.8)	1.8 (1.3, 2.5)
Had a personal doctor	1.3 (0.7, 2.7)	2.1 (0.9, 4.9)	1.1 (0.5, 2.4)	1.8 (1.0, 3.4)
Personal doctor was Vietnamese	1.3 (0.7, 2.1)	0.6 (0,4, 1.1)	0.9 (0.5, 1.5)	0.8 (0.8, 1.3)

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Factors Associated with Being Up-to-Date with CRC Screening (4)

Adjusted for gender, education, years in U.S., English Fluency, health status, and all variables tabulated

Knowledge and Attitudes (1)	FOBT (n=832) OR 95%CI	Sig. (n=828) OR 95%CI	Col. (n=828) OR 95%CI	Any test (n=827) OR 95%CI
Had heard of colon polyps	1.5 (0.8, 1.7)	1.8 (1.2, 2.8)	1.8 (1.2, 2.6)	1.6 (1.2, 2.2)
Worried about colon cancer	1.1 (0.7, 1.6)	1.5 (1.0, 2.4)	1.2 (0.8, 1.8)	1.5 (1.0, 2.1)
Thought might get colon cancer	0.7 (0.5, 1.1)	1.5 (1,0, 2.4)	1.3 (0.8, 1.9)	1.0 (0.7, 1.4)
Thought need FOBT if feel healthy	2.1 (1.5, 3.0)			1.5 (1.0, 2.1)
Afraid FOBT might find cancer	1.7 (1.1, 2.7)			1.2 (0.6, 2.1)

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Factors Associated with Being Up-to-Date with CRC Screening (5)

Adjusted for gender, education, years in U.S., English Fluency, health status, and all variables tabulated

Knowledge and Attitudes (2)	FOBT (n=832) OR 95%CI	Sig. (n=828) OR 95%CI	Col. (n=828) OR 95%CI	Any test (n=827) OR 95%CI
Thought need sig/col if feel healthy		1.1 (0,7, 1.7)	2.1 (1.4, 3.1)	1.0 (0,7, 1.5)
Afraid sig/col might find cancer		0.7 (04, 1.3)	0.9 (0.5, 1.6)	0.9 (0.5, 1.7)
Thought sig/col painful		1.1 (0.7, 1.7)	0.5 (0.3, 0.7)	0.7 (0,5, 1.0)
Thought sig/col preparation troublesome		1.5 (1,1, 2.5)	2.8 (1.9, 4.1)	1.6 (1.2, 2.3)

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Factors Positively Associated with Currency with CRC Screening (1)

Same factors as receipt

- Being in the older age group (65 to 74 years)
- Residing in California
- Having private or public insurance
- Having a regular place of care
- Having a personal doctor
- Having heard of colon polyps
- Worrying about colon cancer
- Thinking might develop colon cancer
- Thinking need FOBT even if feel healthy
- Thinking sig/col preparation troublesome

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Factors Positively Associated with Currency with CRC Screening (2)

Do not include: Thinking need sig/col even if feel healthy

Additional factors include:

- Being married
- Receiving indigent care from counties
- Being afraid FOBT might find cancer

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Factors Negatively Associated with Currency with CRC Screening

- Thinking sigmoidoscopy/colonoscopy painful

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Summary

- Overall colorectal screening rates in Vietnamese Americans were low.
- Modifiable factors include knowledge, attitudes, access, and provider.

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Knowledge and Attitudes

- Vietnamese Americans are willing to accept colorectal screening if they understand the need for it and it is recommended by healthcare providers
- Public intervention can increase knowledge and improve attitudes

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Access

- Programs enhancing access to colorectal screening services to low- and moderate-income populations without health insurance coverage are needed.

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Provider

- Health care providers need training to provide and recommend colorectal screening tests to patients.

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Thank you

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