UNIVERSITY of MARYLAND
MARLENE AND STEWART GREENEBAUM
COMPREHENSIVE CANCER CENTER

UNIVERSITY OF MARYLAND | SCHOOL of PUBLIC HEALTH
Advancing a Better State of Health

Increasing Colorectal Cancer Screening among Asian Americans

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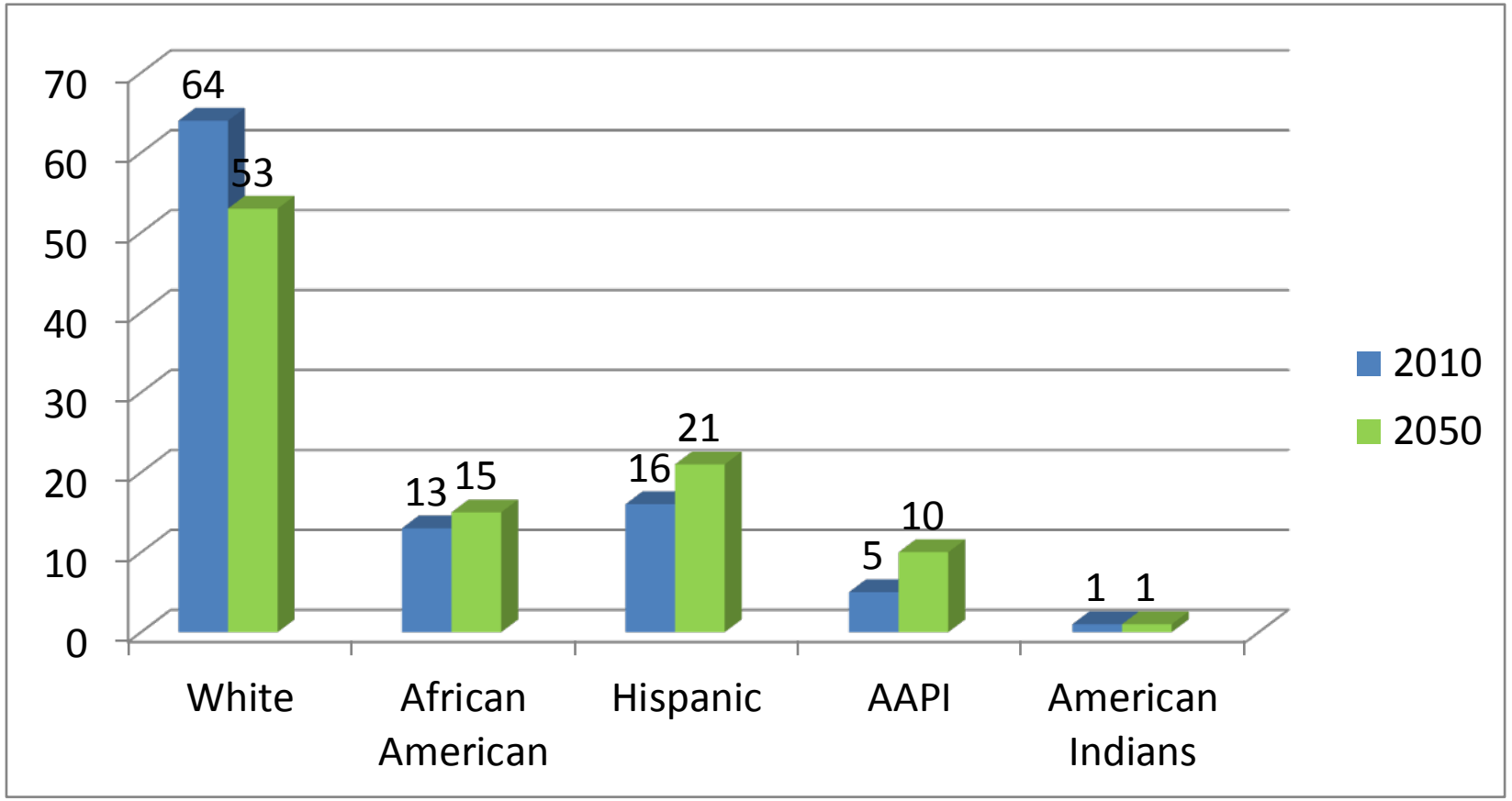
Who are Asian Americans?

Asian Americans

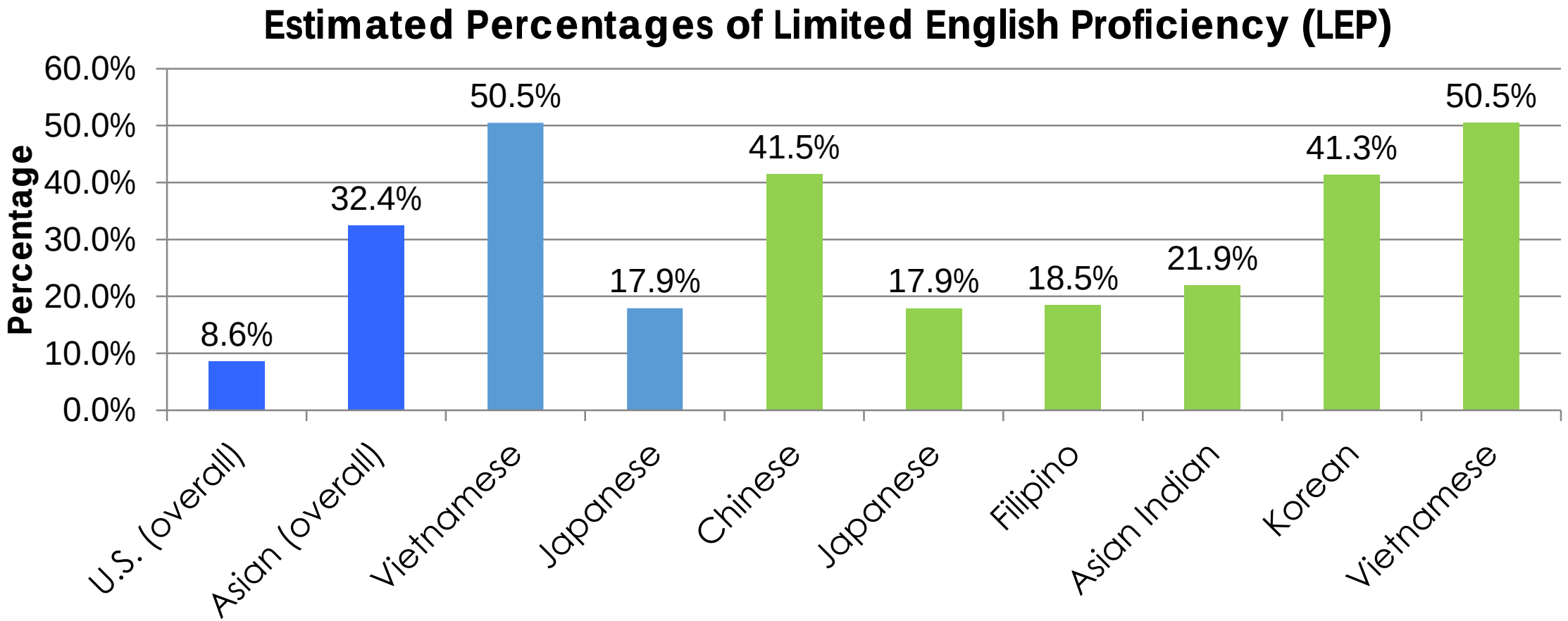
- Asian American: person of Asian ancestry who was born in or immigrated to the United States
  - 95% of total AAPI
  - From the Far East, Southeast Asia, and Indian Subcontinent
  - 31 distinct groups
  - >100 languages and dialects
    - **Aggregated Asian data may mask subgroup difference**
  - 70% foreign born; >65% speak native language; 35% linguistically isolated
  - Historically understudied population

U.S. Population Distribution (%)



2010 US Census

Limited English Proficiency



APIAHF (2011)

Cancer Statistics for Asian Americans

Cancer Is Leading Cause of Death among Asians

	Whites	Blacks	Asian/Pacific Islander
1	Heart Disease	Heart Disease	**Cancer**
2	Cancer	Cancer	Heart Disease
3	Chronic lower respiratory disease	Cerebrovascular Disease	Cerebrovascular Disease
4	Accidents	Diabetes Mellitus	Accidents
5	Cerebrovascular Disease	Accidents	Diabetes Mellitus

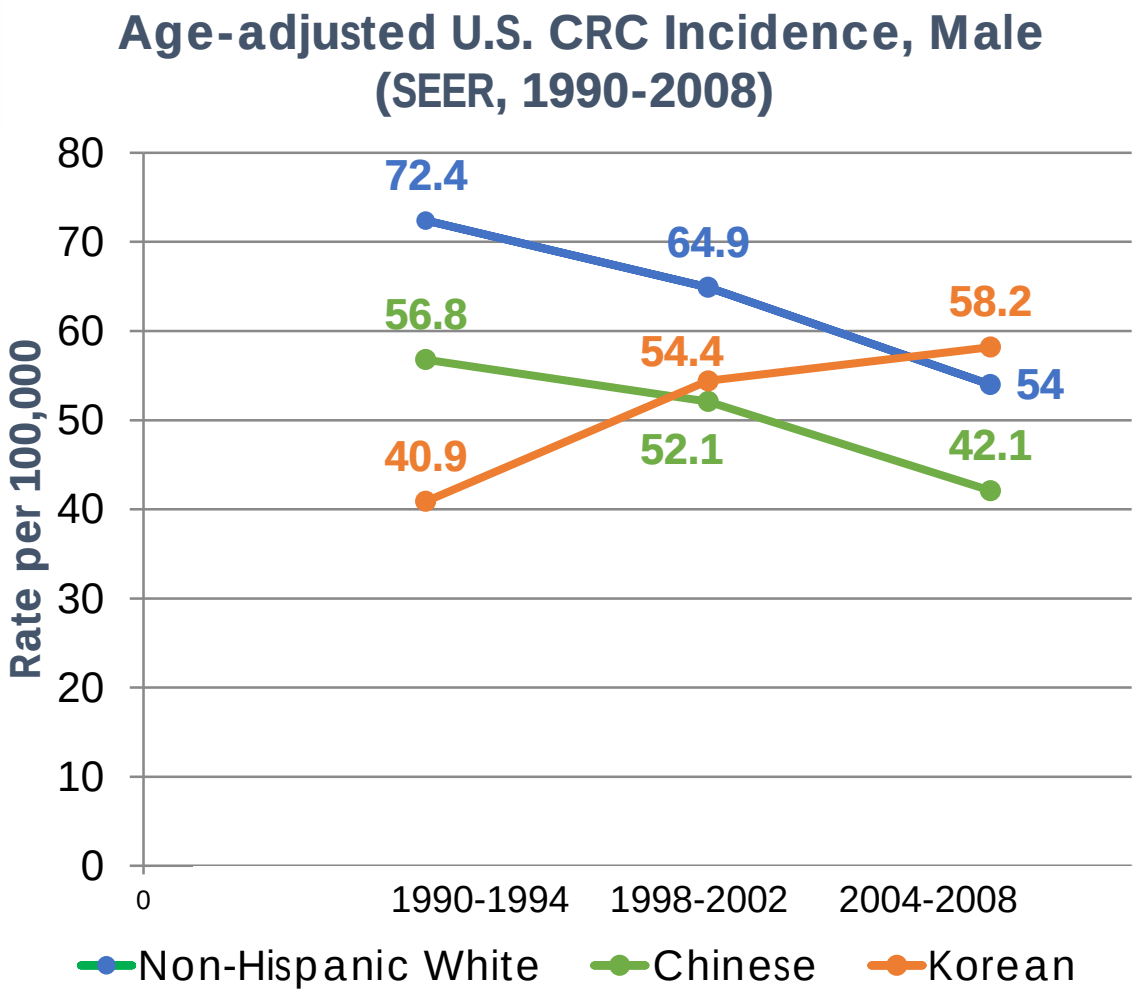
Heron (2015). Deaths: Leading causes for 2012. National Vital Statistics Reports.

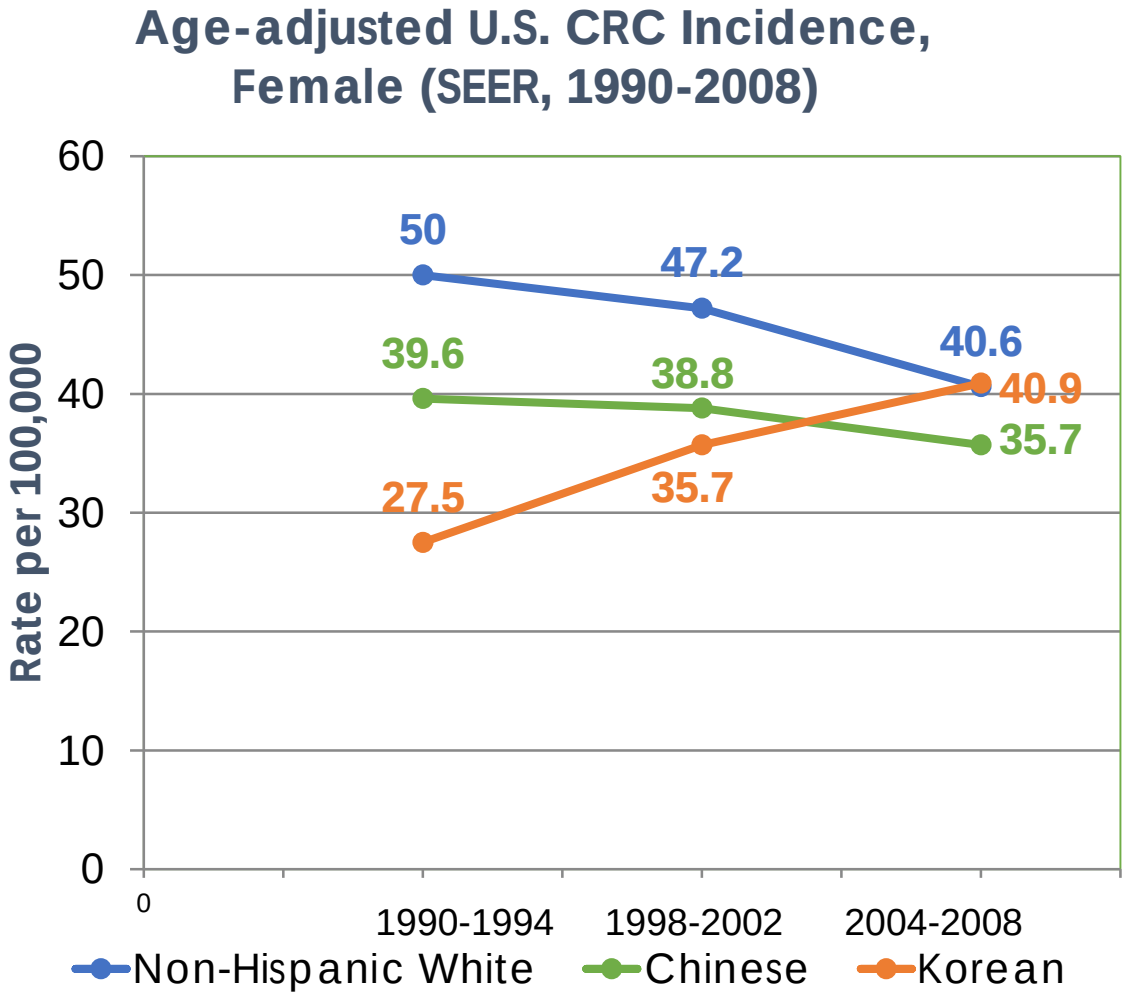
Top 5 Cancer Incidence among Asian American, 2004-2008

Male			Female		
White	**Chinese**	**Korean**	**White**	**Chinese**	**Korean**
Prostate	Prostate	Prostate	Breast	Breast	Breast
Lung	Lung	**CRC**	Lung	**CRC**	**CRC**
CRC	**CRC**	Lung	**CRC**	Lung	Lung
Bladder	Liver	Stomach	Uterus	Uterine	Stomach
Melanoma	Stomach	Liver	Melanoma	Thyroid	Thyroid

Gomez , *J Nat Cancer Inst*., 2013

CRC Incidence on the Rise for Korean Americans





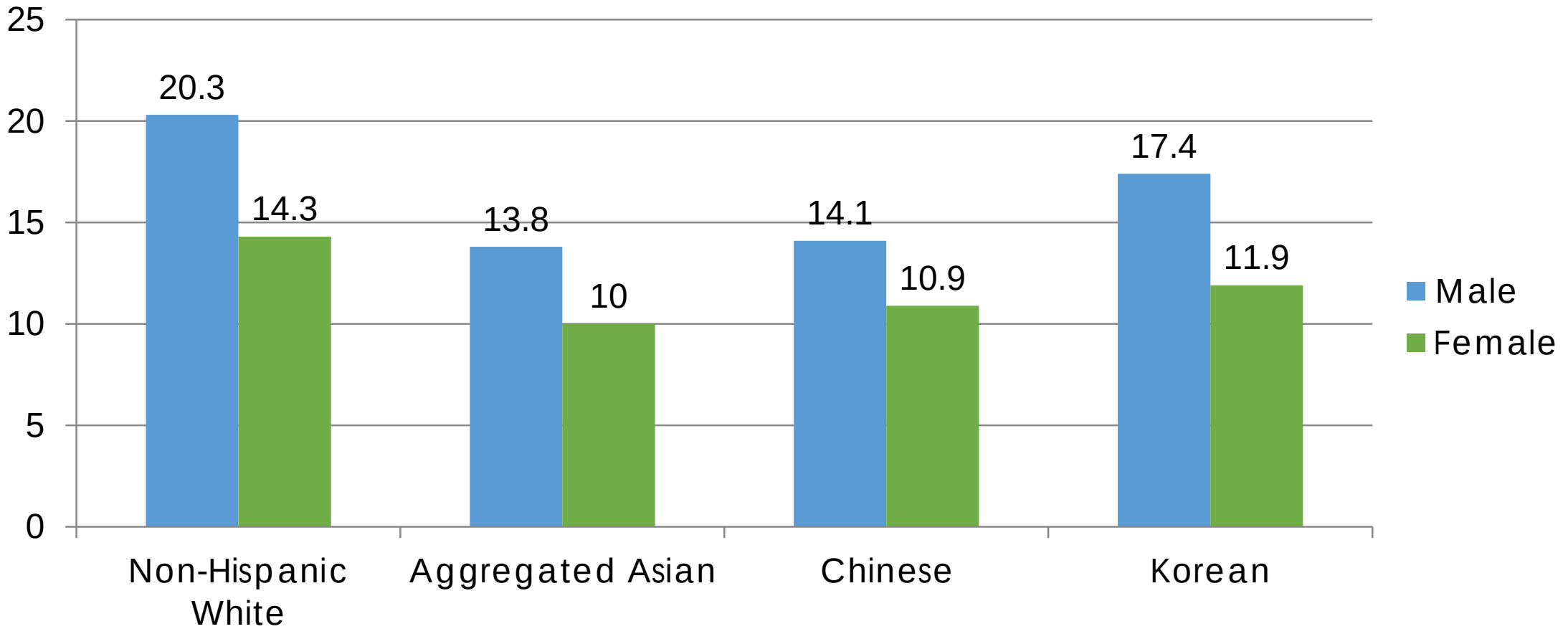
Gomez , *J Nat Cancer Inst*., 2013

Top 5 Cancer Mortality among Asian American, 2003-2011

Male			Female		
White	**Chinese**	**Korean**	**White**	**Chinese**	**Korean**
Lung	Lung	Lung	Lung	Lung	Lung
Prostate	Liver	Stomach	Breast	Breast	Stomach
CRC	**CRC**	Liver	**CRC**	**CRC**	**CRC**
Pancreas	Stomach	**CRC**	Pancreas	Pancreas	Pancreas
Leukemia	Leukemia	Pancreas	Ovary	Stomach	Liver

Thompson et al., *Cancer Epidemiol* Biomarkers Prev, 2016

CRC Mortality Is High among Koreans, 2003-2011



Thompson et al., *Cancer Epidemiol* Biomarkers Prev, 2016

Statistics for Colorectal Cancer Screening among Asian Americans

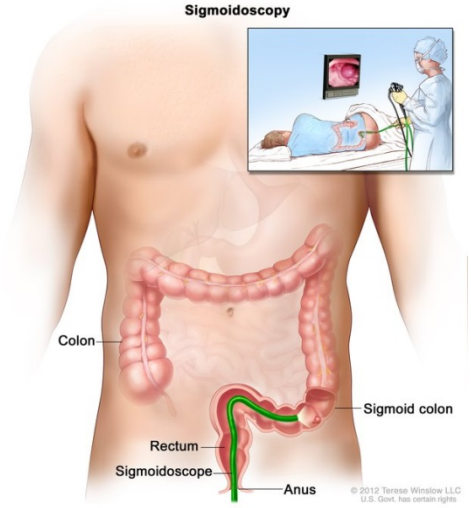
CRC Screening Guidelines

- U.S. Preventive Services Task Force (USPSTF) Recommendations for adults aged 50-75 years:

Fecal Immunochemical Test (FIT)

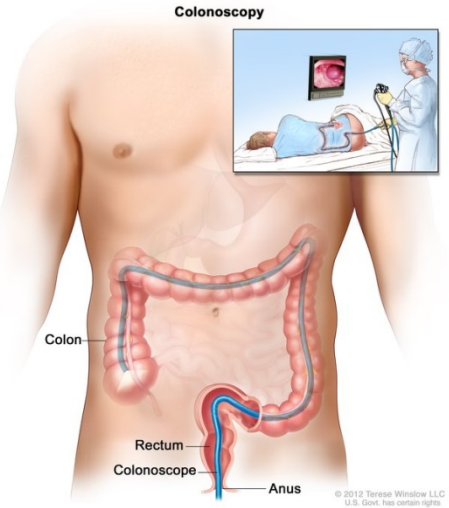
Every Year

Flexible Sigmoidoscopy



Every 5 Years combined with FIT every 3 Years

Colonoscopy



Every 10 Years

CRC Screening Disparities (1)

Maryland BRFSS CRC screening data by racial/ethnic groups, % (2010)				
	Ever had FOBT	Ever had Sigmoidoscopy or colonoscopy	Had FOBT in last 2 years	Had Sigmoidoscopy or colonoscopy in last 2 years
Asian	**24.0**	**56.7**	**11.0**	**30.4**
White, Non-Hispanic	43.8	72.8	23.2	33.3
Black, Non-Hispanic	44.1	73.2	28.8	38.5
Hispanic	29.7	68.7	14.3	37.4

CDC, *BRFSS*, 2010

CRC Screening Disparities (2)

CRC Screening (%) in Whites, AAPIs, and Asian Subgroups (CHIS, 2001-2005)*				
	2001	2003	2005	Change 2001-2005
Non-Latino Whites	56	55	59	3
AAPIs	46	45	49	3
Chinese	**47**	**51**	**53**	**6**
Korean	**39**	**34**	**29**	**-10**

* Includes any one of the following CRC screening tests within the past 5 years: sigmoidoscopy, colonoscopy, and FOBT

Maxwell & Crespi, *Cancer Epidemiol Biomarkers Prev*, 2009

Up-to-date CRC screening among California adults, 2003-2009

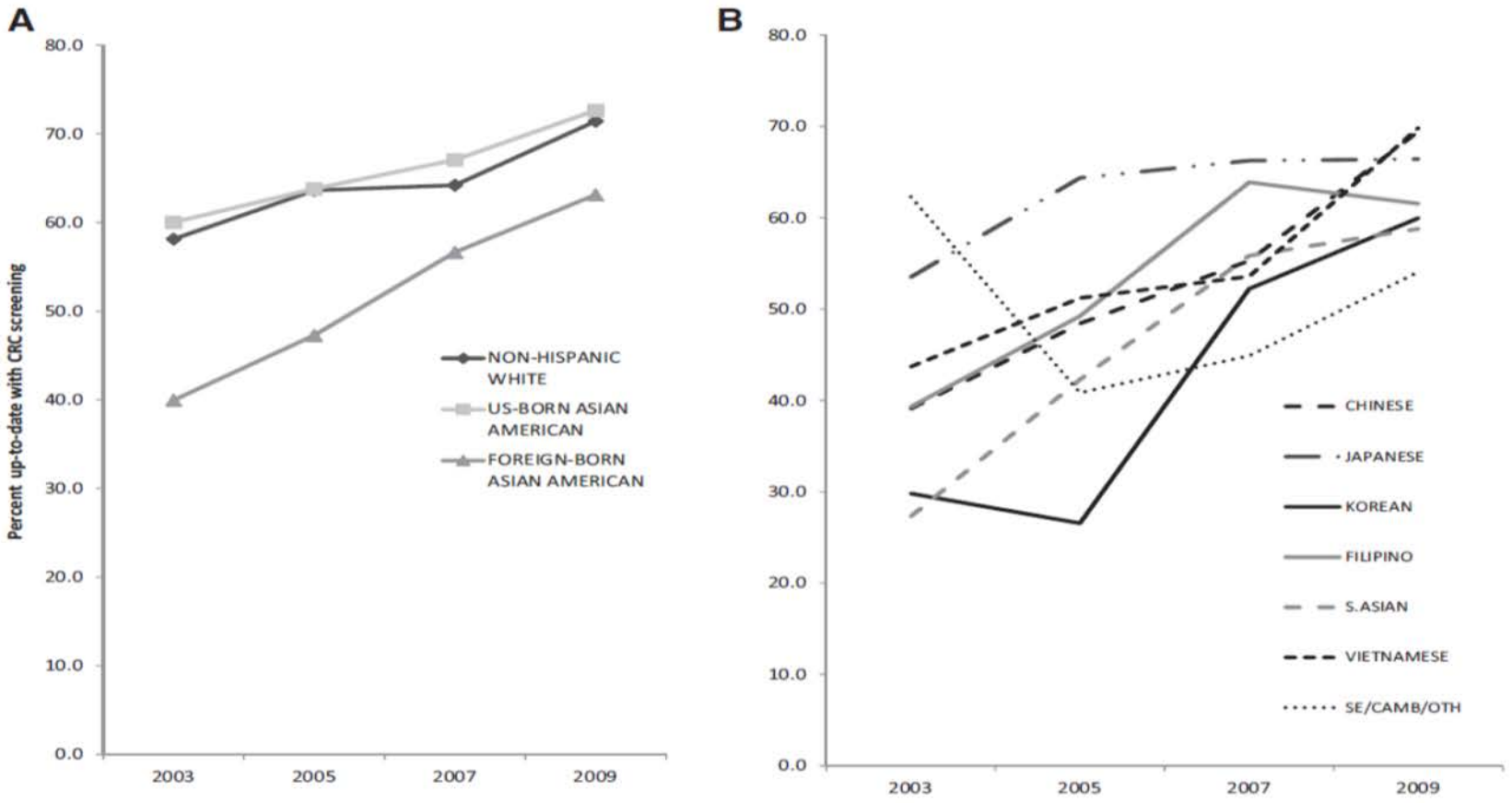
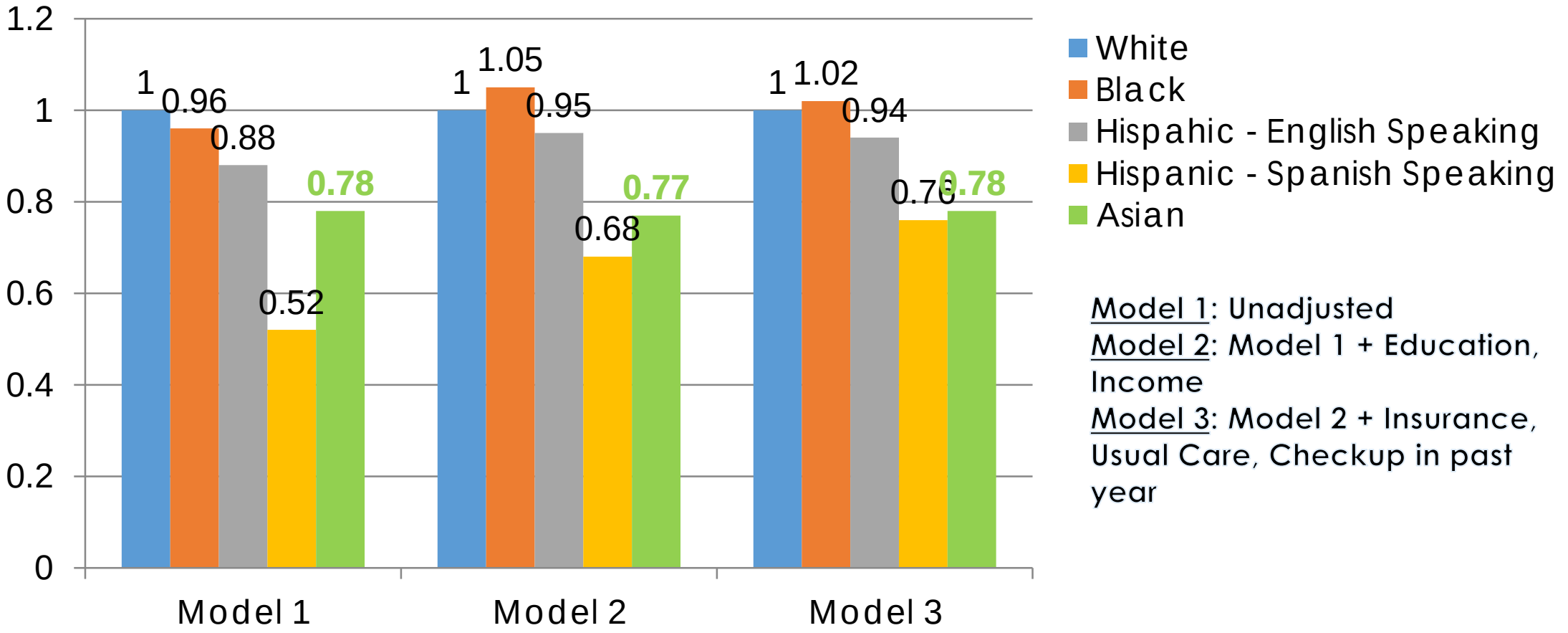


Figure 1.
Up-to-date colorectal cancer screening among California adults ages 50–75 years, CHIS 2003, 2005, 2007, 2009. A, colorectal cancer screening prevalence among Asian Americans by place of birth and non-Hispanic Whites. B, colorectal cancer screening among Asian Americans, by subgroup. CAMB, Cambodian; CRC, colorectal cancer; OTH, other; S, South; SE, Southeast; US, United States.

Fedewa et al., *Cancer Epidemiol Biomarkers Prev*, 2016

Up-to-date CRC Screening in Sequential Multivariable Regression Modeling (BRFSS,2010)



Model 1: Unadjusted
Model 2: Model 1 + Education, Income
Model 3: Model 2 + Insurance, Usual Care, Checkup in past year

Liss & Baker, *Am J Prev Med*, 2014

None of the Asian vs. White disparity was explained by SES or access to care

What is driving the disparity?

STOP CRC

Screening TO Prevent ColoRectal Cancer

Funded by Centers for Disease Control and Prevention

PI: Lee (3U48DP001929 SIP 13-067), 2013-2015

Study Objective and Design

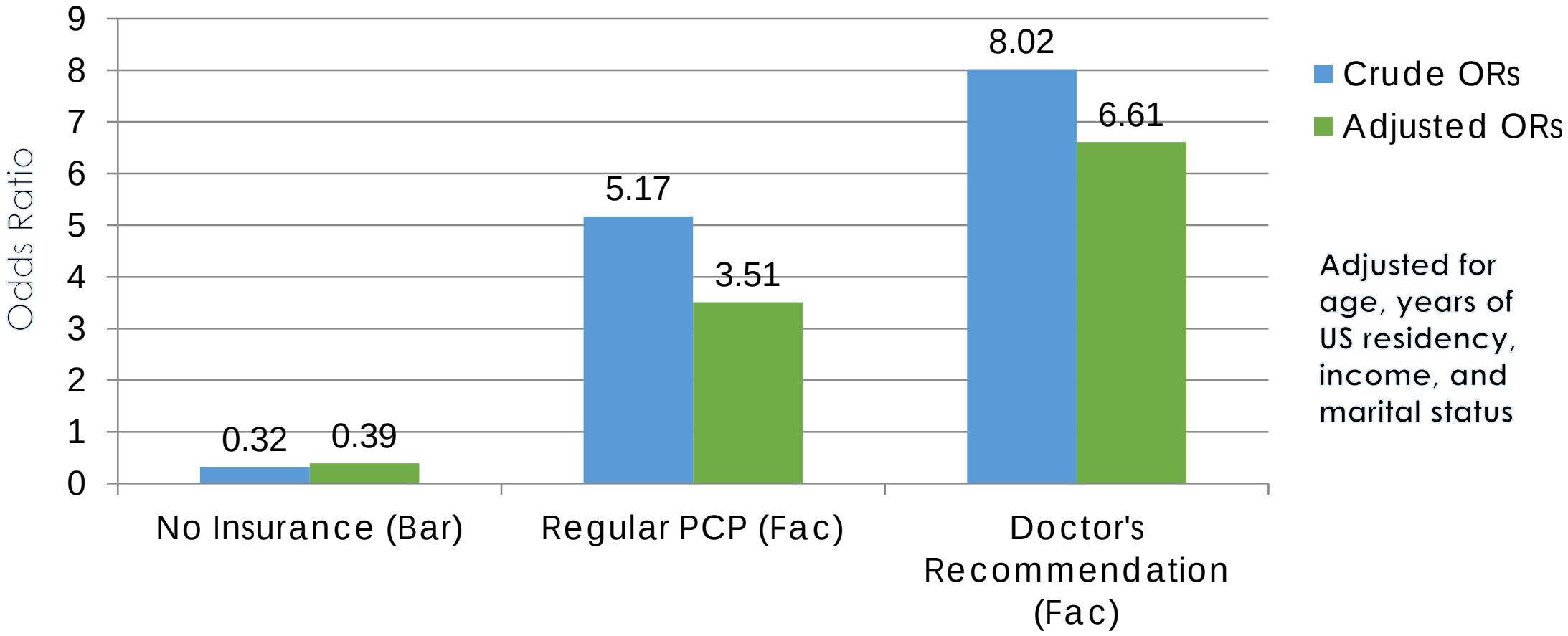
- **Study Objective:**
  - To examine facilitators and barriers to CRC screening among Chinese and Korean Americans by **triangulating quantitative and qualitative data**

- **Study Design: Mixed-Methods Study**
  - Quantitative method: self-administered surveys (n=120)
  - Qualitative methods (two-stage): key informant interviews (n=17) and focus groups (n=120)

Chinese Focus Group

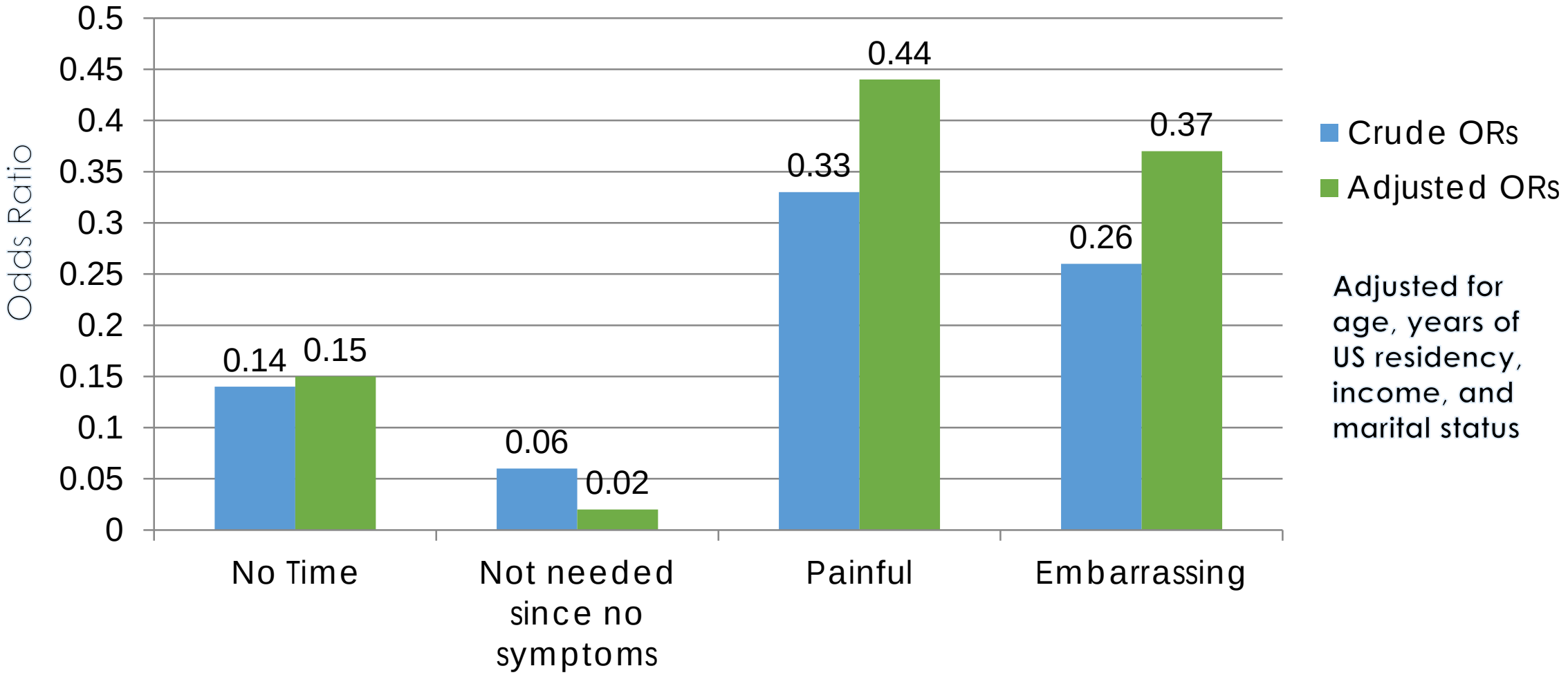
Korean Focus Group

Quantitative Findings: Key General Facilitators and Barriers



Jung et al., *Ethn Health*, 2017

Quantitative Findings: Key Colonoscopy Facilitators and Barriers



Jung et al., *Ethn Health*, 2017

Qualitative Findings: Cultural Barriers (1)

- **Less emphasis on preventive care**

  "If I have no symptoms for CRC now, I am not going spend my time and money to get screening."

- **Strong stigma towards cancer**

  "Cancer is a fatal disease anyway. There is a view that it is better not to know about things to happen later. There are people who think that if it is cancer it will be too difficult, so they do not get screening."

- **Heavy Emphasis on Self-care**

  "I do not actively take the tests, I just do exercise and maintain a good mood. I eat well and sleep well."

Qualitative Findings: Cultural Barriers (2)

- **Misconception of perceived susceptibility**

  "CRC is something that White people get often."

  "In my case I don't really like meat. Since my diet is mostly vegetable- based, I don't think that I will get CRC."

- **Less exposure to American media**

  " It's not like they're watching TV to see Katie Couric tell them that you should get colonoscopy because it can save your life. They're more shielded from NBC news talking about screening." (by a physician)

- **Burden to family members**

"They see themselves as a burden [to their children]" and that "it's hard for them to reach out to them [their children] to [say] 'oh okay, I need to go see a doctor. Can you not go to work and come and help me see a doctor?'" (by a physician)

Qualitative Findings: Language and Navigating American Health Care System

- **Language**

"We always went to see Chinese speaking doctors so we could express our concerns".

"We have to go to a doctor, but due to communication issues we seek Korean offices."

- **Complexity of navigating health care system**

"I don't really understand the U.S. healthcare system," noting finding a doctor, making an appointment, and going through a primary care physician to see a specialist as specific challenges.

- **Need for patient navigation**

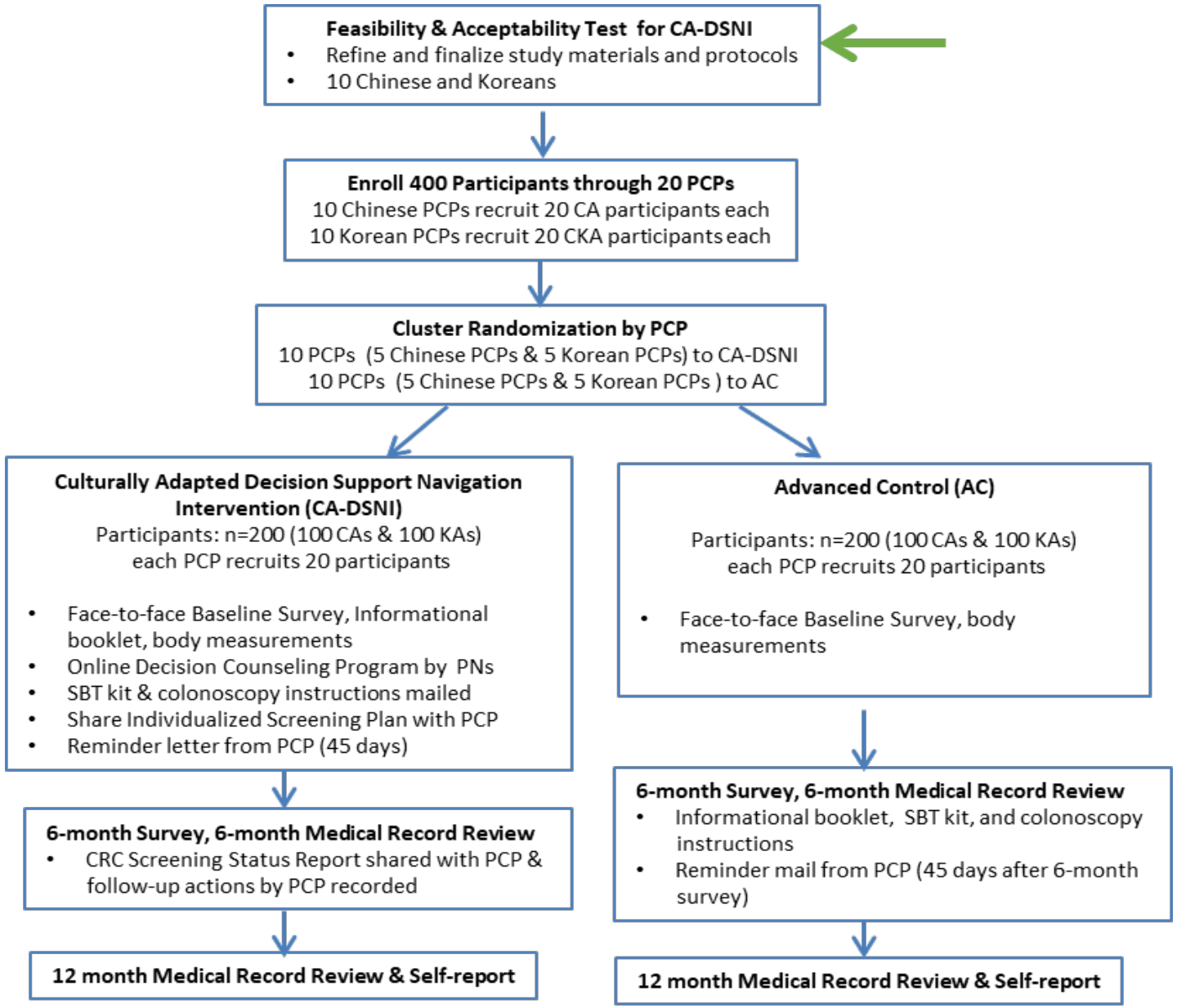
Highlighted the need to assist patients with finding a doctor, making the appointments, and explaining procedures stating, "I mean with the language problem, if without our help, they cannot manage." *(by a patient navigator)*

Culturally Adapted Decision Support Navigation Trial to Reduce Colorectal Cancer Disparity among Asian American Primary Care Patients

Funded by National Institute of Minority Health and Health Disparities
PI: Lee (1R01 012778), 2017-2022

Key Features of This Program

- Built on the key findings from the STOP CRC study
  - Physician's recommendation is the strongest facilitator – involve PCPs as main players
  - Numerous psychological, cultural, and healthcare system barriers to CRC screening are addressed
- To date, a small number of community-based studies have used community education outreach intervention
  - Some of above mentioned barriers are difficult to overcome by one-way delivery of information
  - Knowledge itself is not adequate to address emotional concerns or affective factors
- Linguistically and culturally adapted evidence-based interactive decision aids (Decision Counseling Program (DCP), an online software program)
  - Provide information and engage participants in shared decision making with a provider
- Navigators act as an agent of PCPs to do shared decision making, in coordination with PCPs and office managers
- Participants choose one of the two screening methods (stool test or colonoscopy)


Feasibility & Acceptability Test for CA-DSNI
Refine and finalize study materials and protocols
10 Chinese and Koreans
Enroll 400 Participants through 20 PCPs
10 Chinese PCPs recruit 20 CA participants each
10 Korean PCPs recruit 20 CKA participants each
Cluster Randomization by PCP
10 PCPs (5 Chinese PCPs & 5 Korean PCPs) to CA-DSNI
10 PCPs (5 Chinese PCPs & 5 Korean PCPs) to AC
Culturally Adapted Decision Support Navigation Intervention (CA-DSNI)
Participants: n=200 (100 CAs & 100 KAs)
each PCP recruits 20 participants
Face-to-face Baseline Survey, Informational booklet, body measurements
Online Decision Counseling Program by PNs
SBT kit & colonoscopy instructions mailed
Share Individualized Screening Plan with PCP
Reminder letter from PCP (45 days)
6-month Survey, 6-month Medical Record Review
CRC Screening Status Report shared with PCP & follow-up actions by PCP recorded
12 month Medical Record Review & Self-report
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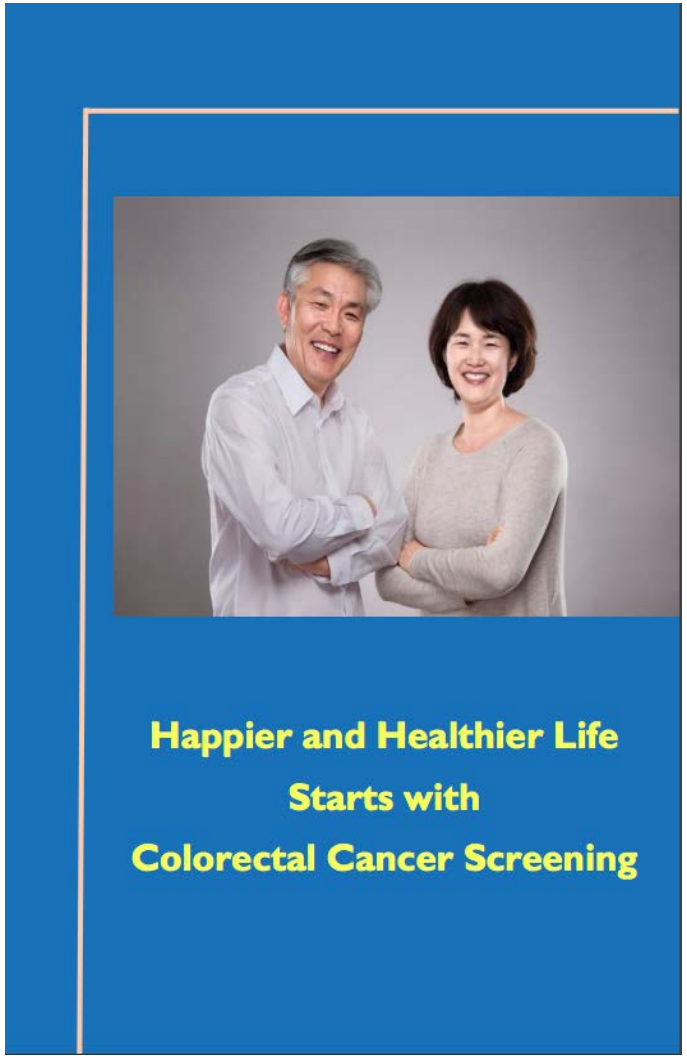
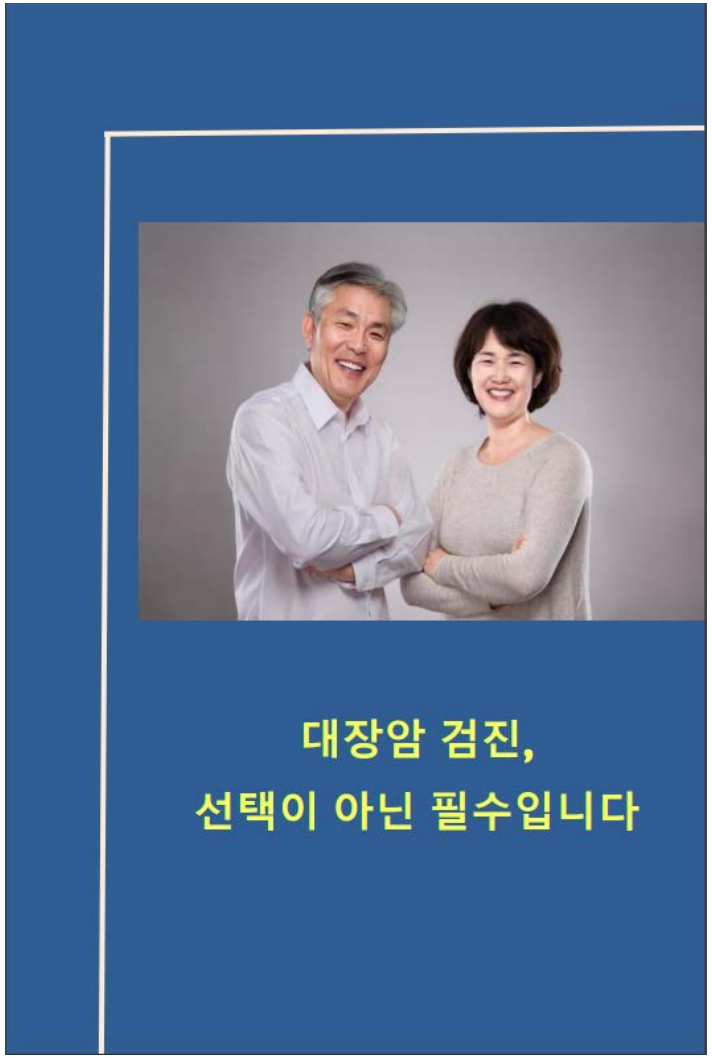
12 month Medical Record Review & Self-report

Booklets

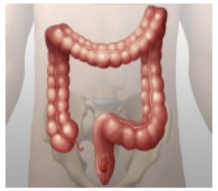

Happier and Healthier Life
Starts with
Colorectal Cancer Screening


대장암 검진,
선택이 아닌 필수입니다


关爱健康
从结直肠癌筛查开始

Why Screen For Colorectal Cancer?

6 Important Facts



Colorectal cancer is the **only cancer that can be prevented** by identifying and removing precancerous polyps.

9 out of 10 deaths from colorectal cancer **can be prevented** with **screening and early detection.**

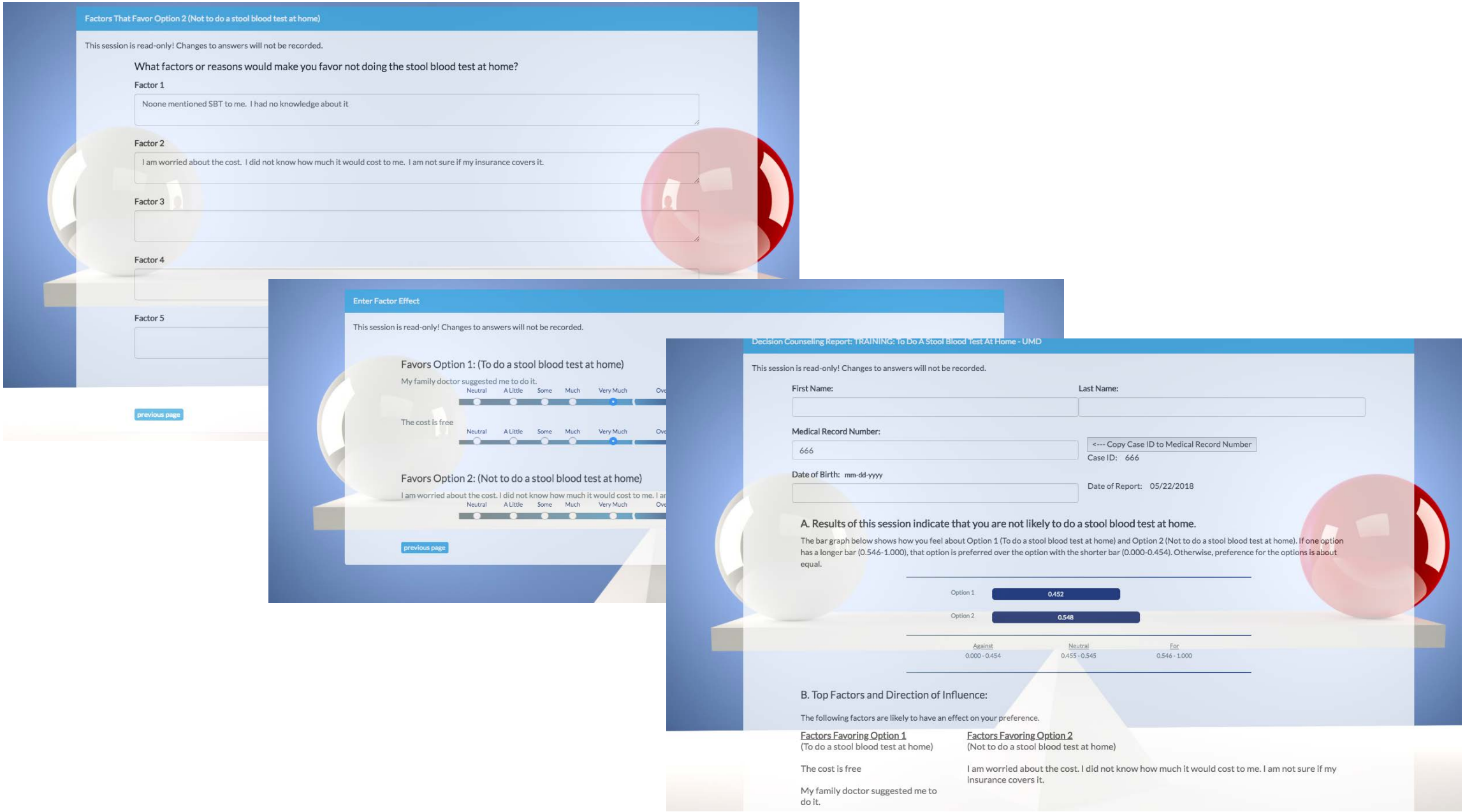
People between **age 50 and 75 should be screened** for colorectal cancer. **90%** of **new colorectal cancer cases** occur in **people 50 or older.**

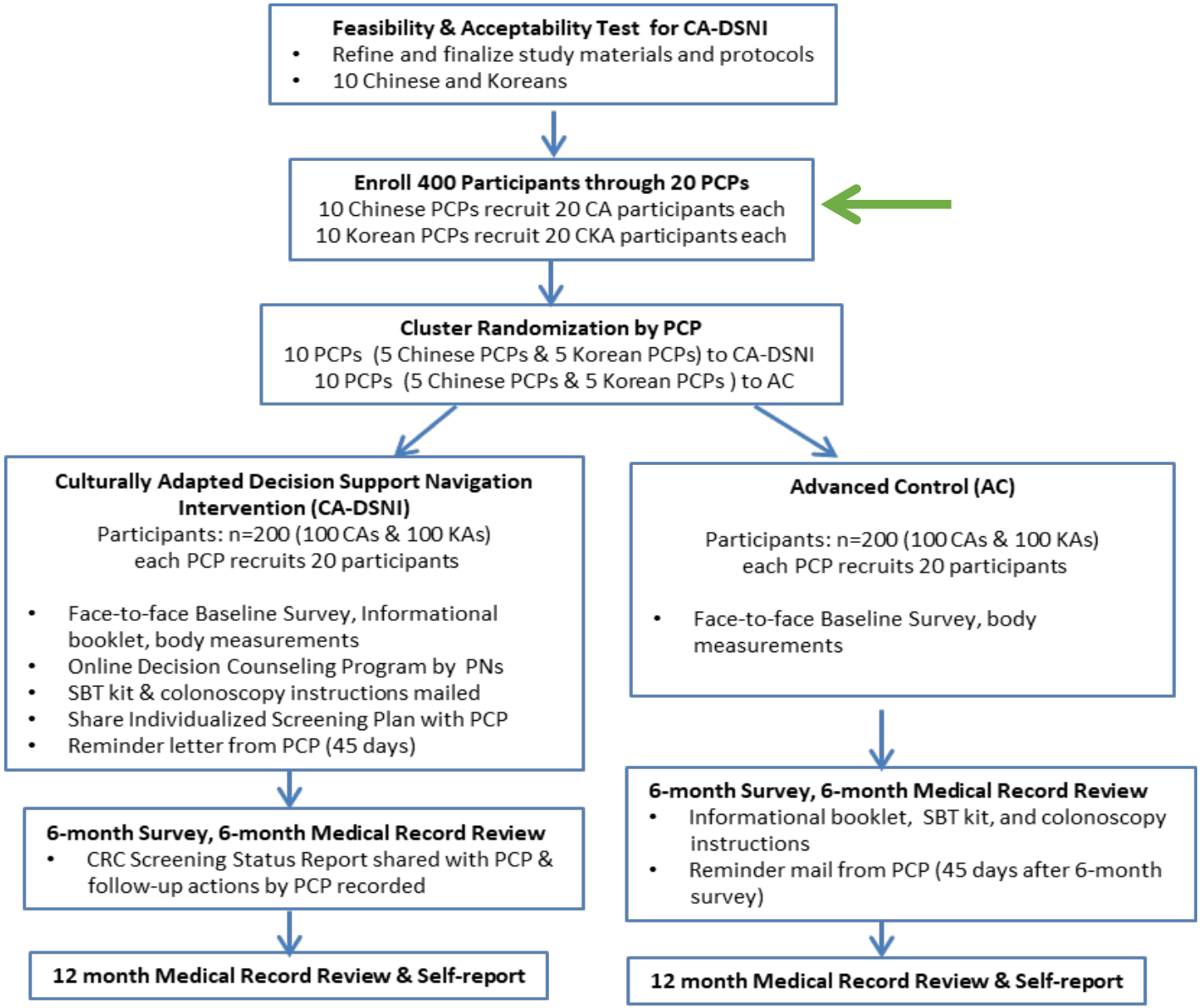
Stool Blood Test		Colonoscopy
Every year	**Frequency**	• Every 10 years if results are normal • Every 3-5 years if 1-2 polyps are found
✓ No bowel cleansing ✓ No dietary restriction ✓ Can do it at home ✓ Low cost ✓ Not invasive ✓ No side effects	**Benefits**	✓ Examines entire colon ✓ Can remove polyps as well as find colon cancers ✓ Can find other gastrointestinal-related diseases
▪ Can miss polyps and cancers ▪ Can produce false-positive result ▪ Colonoscopy is necessary if results are positive	**Limitations**	▪ Full bowel cleansing needed to be effective ▪ Dietary restriction ▪ May miss a day of work ▪ Need person to take you home ▪ Potential post-procedural complications

Myths about Colorectal Cancer Screening

Myth 1: Colonoscopy is unpleasant and uncomfortable.	**Truth 1:** Sedatives induce sleep. You will not be unpleasant and uncomfortable.
Myth 2: Colonoscopy is the only way to screen.	**Truth 2:** Colonoscopy is the most accurate test, but other screening option, such as stool blood test is available.
Myth 3: If I do not have symptoms, colorectal cancer screening is unnecessary.	**Truth 3:** You can have colorectal cancer without any symptoms. Only screening can detect early signs and prevent colorectal cancer.
Myth 4: Colorectal cancer screening is unnecessary because I eat healthy, exercise regularly, and do not have a family history of colorectal cancer.	**Truth 4:** Colorectal cancer is still possible even if you eat healthy, exercise regularly, and do not have a family history.

Decision Counseling Program


Factors That Favor Option 2 (Not to do a stool blood test at home)
This session is read-only! Changes to answers will not be recorded.
What factors or reasons would make you favor not doing the stool blood test at home?
Factor 1
Noone mentioned SBT to me. I had no knowledge about it
Factor 2
I am worried about the cost. I did not know how much it would cost to me. I am not sure if my insurance covers it.
Factor 3
Factor 4
Factor 5
previous page
Enter Factor Effect
This session is read-only! Changes to answers will not be recorded.
Favors Option 1: (To do a stool blood test at home)
My family doctor suggested me to do it.
Neutral A Little Some Much Very Much
The cost is free
Favors Option 2: (Not to do a stool blood test at home)
I am worried about the cost. I did not know how much it would cost to me.
previous page
Decision Counseling Report: TRAINING: To Do A Stool Blood Test At Home - UMD
This session is read-only! Changes to answers will not be recorded.
First Name:
Last Name:
Medical Record Number:
666
<--- Copy Case ID to Medical Record Number
Case ID: 666
Date of Birth: mm-dd-yyyy
Date of Report: 05/22/2018
A. Results of this session indicate that you are not likely to do a stool blood test at home.
The bar graph below shows how you feel about Option 1 (To do a stool blood test at home) and Option 2 (Not to do a stool blood test at home). If one option has a longer bar (0.546-1.000), that option is preferred over the option with the shorter bar (0.000-0.454). Otherwise, preference for the options is about equal.
Option 1
0.452
Option 2
0.548
Against
0.000 - 0.454
Neutral
0.455 - 0.545
For
0.546 - 1.000
B. Top Factors and Direction of Influence:
The following factors are likely to have an effect on your preference.
Factors Favoring Option 1
(To do a stool blood test at home)
The cost is free
My family doctor suggested me to do it.
Factors Favoring Option 2
(Not to do a stool blood test at home)
I am worried about the cost. I did not know how much it would cost to me. I am not sure if my insurance covers it.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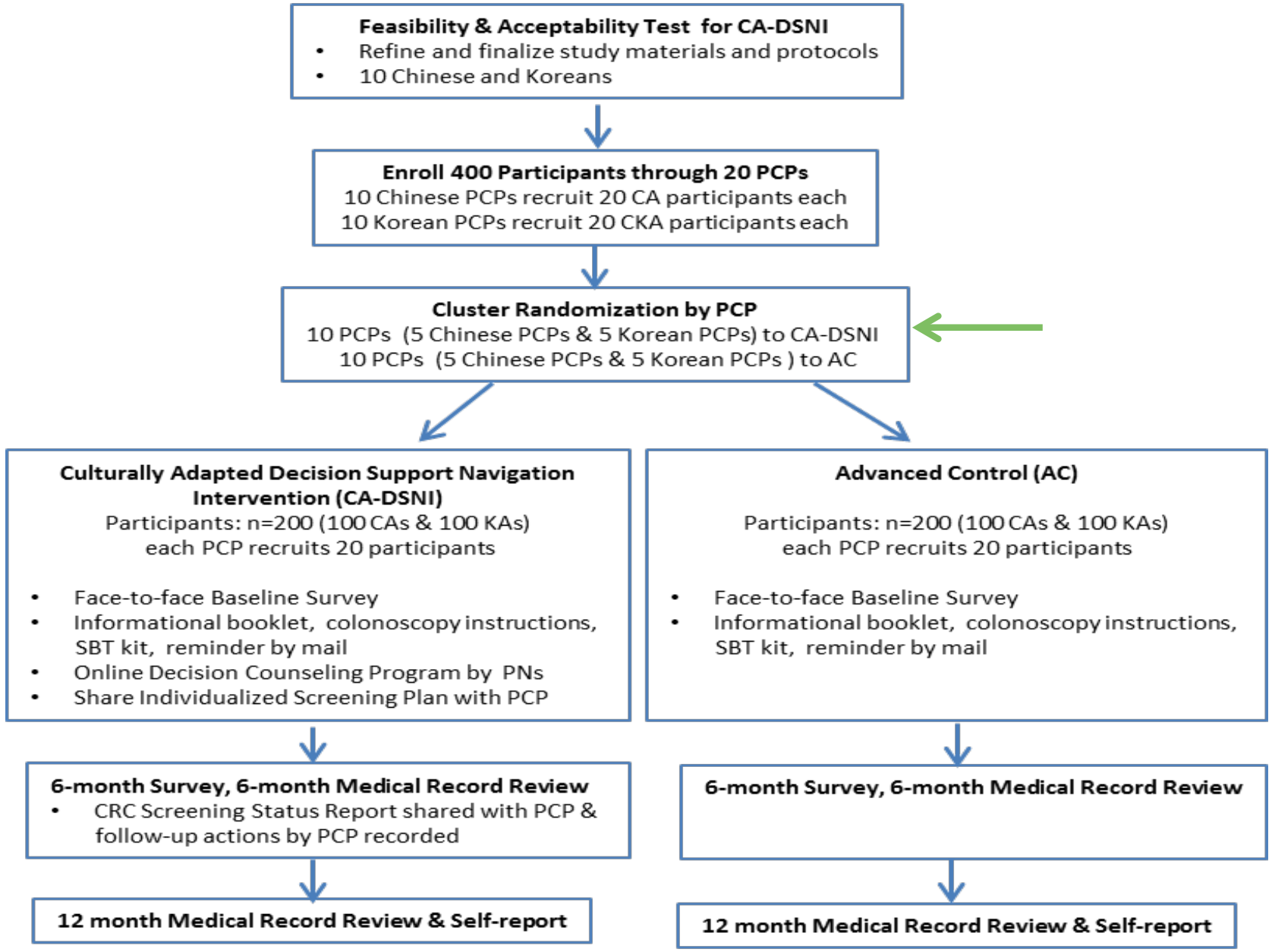
12 month Medical Record Review & Self-report

Eligibility Criteria

- **Inclusion Criteria**
  - Male and female Chinese or Korean patients aged 50-75
  - Not up- to-date for CRC screening
    - Have not done colonoscopy in last 10 years
    - Have not done stool blood test (FOBT or FIT) in last one year

- **Exclusion Criteria**
  - Family history of CRC 1st degree relatives
  - Previous history of removing polyps
  - Those who have inflammatory bowel disease
  - Those who have previous diagnosis of colorectal cancer

Study Schema



Korean PCPs Participating in the Study (KAMA)

Dr. Oki Kwon

Dr. Ji Yon Hwang-Ki

Dr. Daniel Kim

Dr. Wonsock Shin

Dr. James Suh

Dr. Hwang Junn

Dr. Victor Kim

Dr. Su Yi

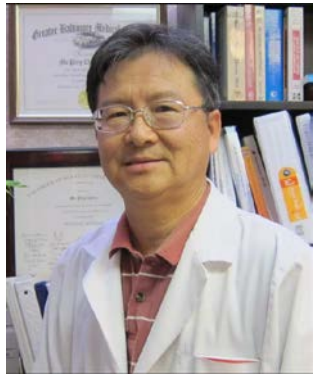
Dr. Kenneth Lee

Dr. Yeong H. Oh

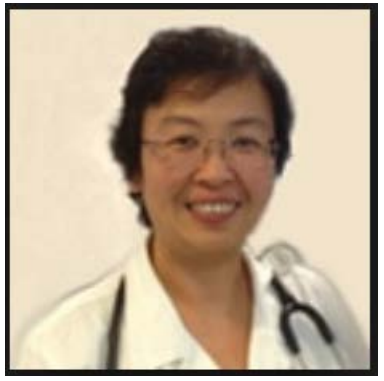

Korean PCPs
Clarksburg
Waterford
Poolesville
Gaithersb
Clarksville
Columbia
Linthicum Heights
Glen Burnie
Pasadena
Purcellville
Leesburg
Potomac River
Rockville
North Bethesda
Potomac
Ashburn
Sterling
Bethesda
College Park
Hyattsville
Edgewater
Atoka
Middleburg
Aldie
Dulles
Tysons
Washington
Falls Church
Largo
The Plains
Centreville
Fairfax
Annandale
Springfield
Joint Base Andrews
Clinton
Deale
Airlie
Manassas
Warrenton
Lorton
Lake Ridge
Fort Washington
Brandywine
Dunkirk
Woodbridge
Accokeek
Catlett
Google

Chinese PCPs Participating in the Study

Dr. Rong Zhang



Dr. Moping Chow

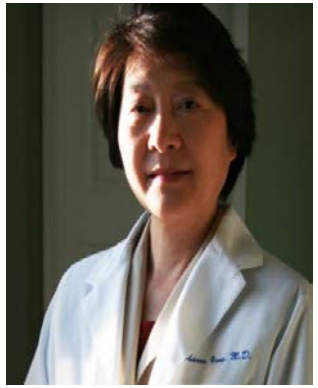


Dr. Qiufang Cheng

Dr. Harry Li

Dr. Hing-Chung Lee

Dr. Mark Li

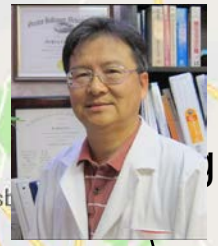


Dr. Sharon Yang

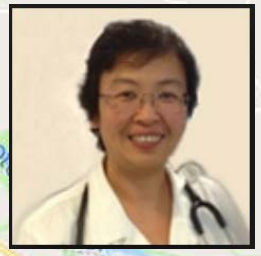
Dr. Nan Ni

Dr.Cathy Gao

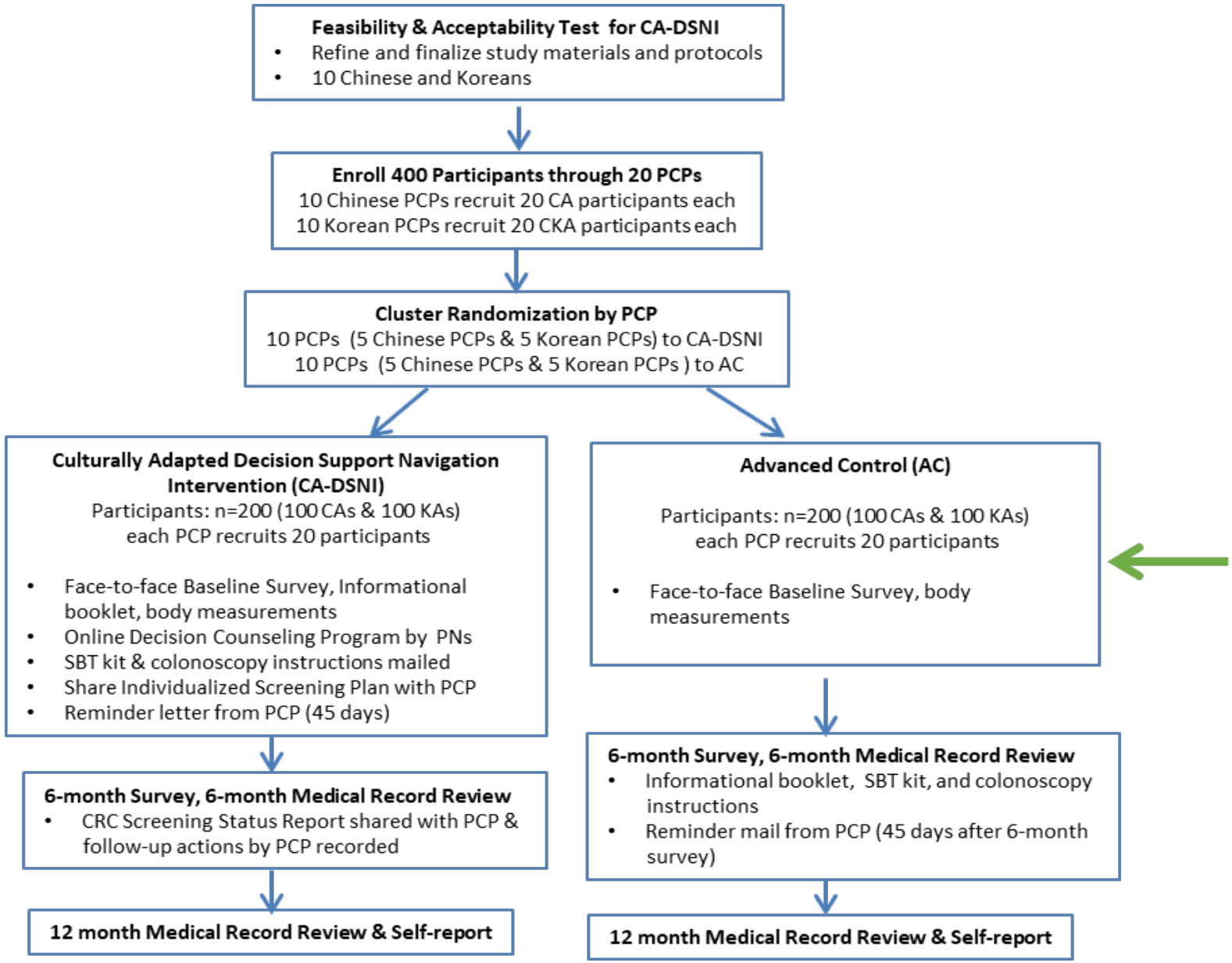
Dr. Benson Yu



Cathy Gao



Chinese PCPs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10 PCPs (5 Chinese PCPs & 5 Korean PCPs) to AC
Culturally Adapted Decision Support Navigation Intervention (CA-DSNI)
Participants: n=200 (100 CAs & 100 KAs)
each PCP recruits 20 participants
• Face-to-face Baseline Survey, Informational booklet, body measurements
• Online Decision Counseling Program by PNs
• SBT kit & colonoscopy instructions mailed
• Share Individualized Screening Plan with PCP
• Reminder letter from PCP (45 days)
6-month Survey, 6-month Medical Record Review
• CRC Screening Status Report shared with PCP & follow-up actions by PCP recorded
12 month Medical Record Review & Self-report
Advanced Control (AC)
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Additional Services at the Baseline Meeting

- Weight & Height – BMI calculated
- Waist and Hip circumference measured
- Blood Pressure
- Glucose
- Cholesterol

- We let them know if their measurements are out of range, and recommend them to consult with their PCPs

During the Decision Counseling Program…

Patient Navigator will:

- Review CRC screening materials and verify participant's preferred screening test
- Identify major factors that would influence participant to or not to screen (pros and cons), determine the level of influence the patient assigns to each factor (not important to overwhelmingly important), enter reported factors and factor weights into DCP, and compute a screening likelihood score (low to high)
- Review this with participants, and develop a screening plan to reinforce facilitators and overcome barriers. Then share this with PCP and participant, and help arranging screening
- Will send a provider endorsement and encouragement for screening
- During any time of the study period (1 year), if PCP meets with patients, this will be reinforced

Sample #1

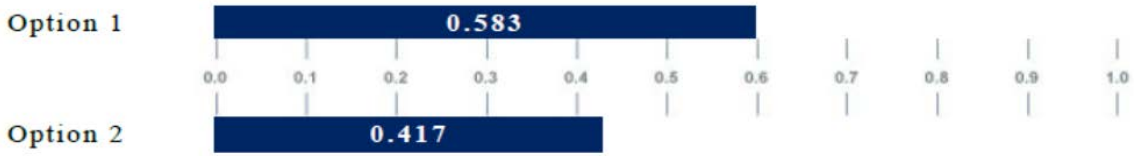
SCHOOL OF PUBLIC HEALTH

First Name: Anett Last Name: Chen
Date of Birth: 12-12-1960
Medical Record Number:
Case ID: Anett001
Date of Report: 05/31/2018

Decision Counseling Report:

A. Results of this session indicate that <u>you are likely to do a stool blood test</u> at home.

The bar graph below shows how you feel about Option 1 (To do a stool blood test at home) and Option 2 (Not to do a stool blood test at home). If one option has a longer bar (0.546-1.000), that option is preferred over the option with the shorter bar (0.000-0.454). Otherwise, preference for the options is about equal.



B. Top Factors and Direction of Influence:

The following factors are likely to have an effect on your preference.

<u>Factors Favoring Option 1</u>
(To do a stool blood test at home)

Afraid of colonoscopy and prefer to do stool blood test

The schedule is very flexible (compared with colonoscopy, doesn't need to take one day off.)

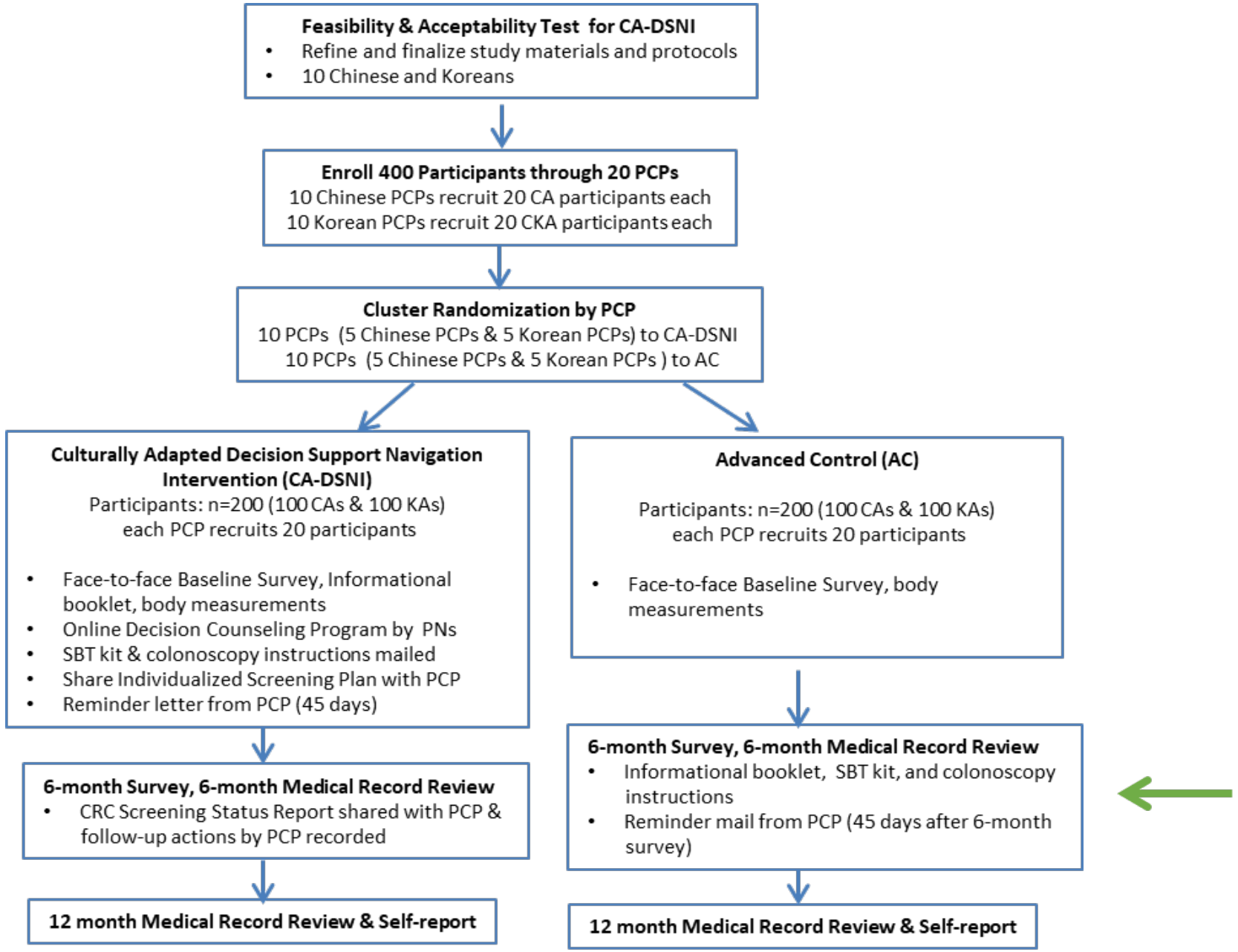
<u>Factors Favoring Option 2</u>
(Not to do a stool blood test at home)

Feel very uncomfortable when participant needs to collect sample

C.Comments:

No comment

Decision Counselor: Yan Qiao


Feasibility & Acceptability Test for CA-DSNI
• Refine and finalize study materials and protocols
• 10 Chinese and Koreans
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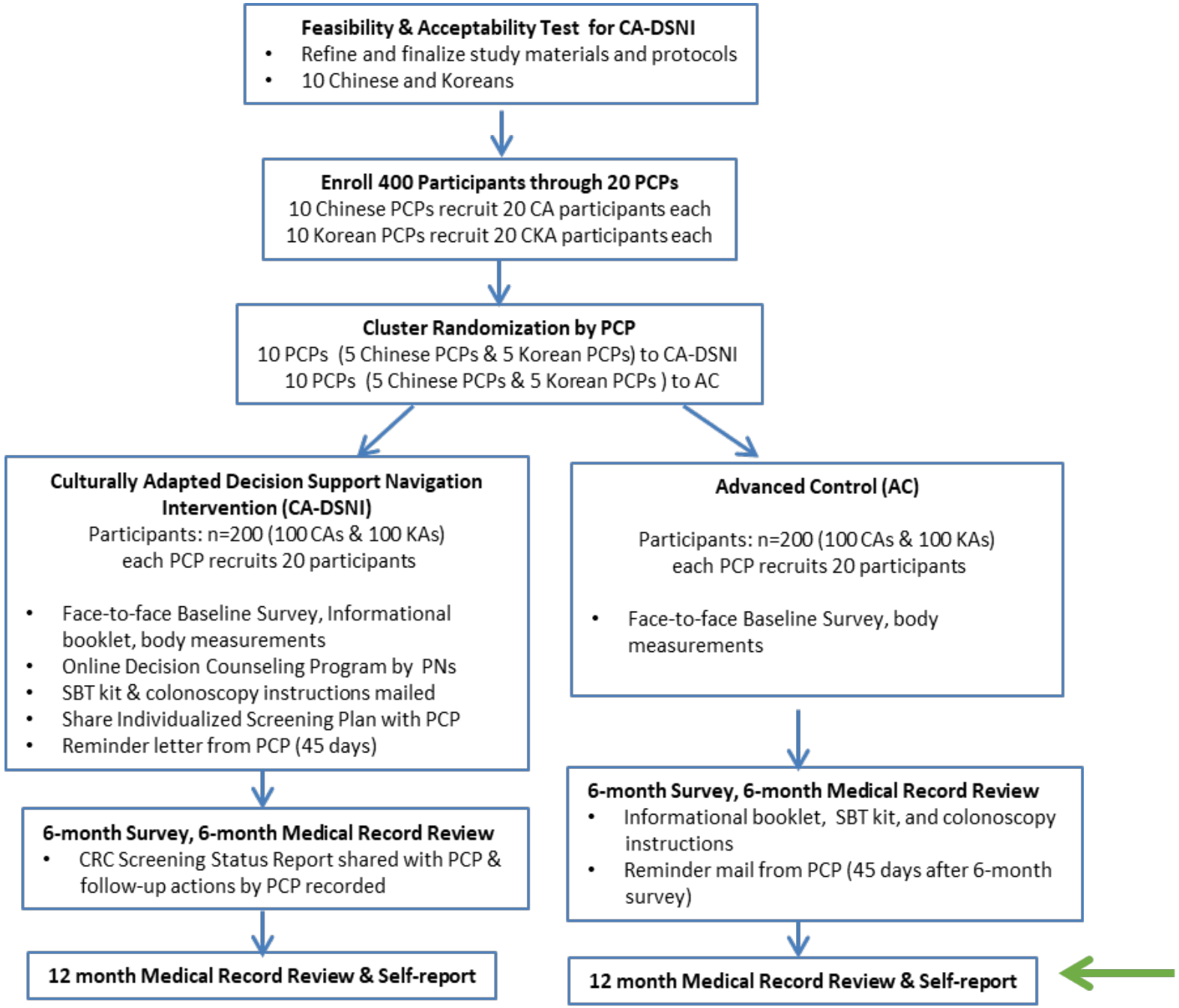
After 6-month Review

- CRC screening status report will be shared with PCP
- PCP will follow-up with participants
  - Non-adherent participants: providers will contact participants and encourage screening
  - Those who require follow-up of abnormal Stool Blood Test (SBT): providers will arrange diagnostic colonoscopy
  - Those who had normal SBT result: providers will contact patients in one year to offer screening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Community-Engaged Research

- Community-engaged research is crucial for success of health disparities research
  - More than 50 Asian-serving community-based organizations (CBO) and faith-based organizations (FBO)
  - More than 30 physicians who serve Asian population
  - Korean American Medical Association's Washington DC Chapter & Chinese American Doctor's Association
- Health Department of Local Government
- Have maintained Community Advisory Board for last 10 years
- BUILD TRUST! (Takes time and effort)
  - Offer assistance for growth of CBO/FBO
  - Train community health workers
  - Bi-directional community learning
  - Long-term relationship