Methods to Increase Colorectal Cancer Screening among Asian Americans

Annette Maxwell, DrPH

University of California, Los Angeles

Fielding School of Public Health &
Jonsson Comprehensive Cancer Center
UCLA Kaiser Permanente Center for Health Equity

California Colorectal Cancer Roundtable, Los Angeles, April 26, 2012
Outline

• Why focus on Asian Americans?

• Clinic based versus community based strategies to increase colorectal cancer screening – what is the evidence?

• The CDC funded Colorectal Cancer Control Program – an opportunity to increase awareness and screening in all populations, including Asian Americans
CRC Incidence and Mortality, CA Males, 2004-2008
(California Cancer Registry)
Why focus on Asian Americans?

Cancer Causes Control
DOI 10.1007/s10552-012-9937-6

Going against the tide: increasing incidence of colorectal cancer among Koreans, Filipinos, and South Asians in California, 1988–2007

Brenda Hofer Giddings · Sandy L. Kwong · Arti Parikh-Patel · Janet H. Bates · Kurt P. Snipes

Cancer Causes & Control, March 30, 2012.
Figure 1. Trends in age-adjusted colorectal cancer incidence rates among Asian subgroups, males, California, 1988-2007

- Chinese (APC, -1.6*)
- Japanese (APC, -1.0*)
- Filipino (APC, 0.2)
- Korean (APC, 3.6*)
- Vietnamese (APC, 1.2)
- South Asian^ (APC, 1.0)

Giddings et al., Cancer Causes & Control, 2012
Figure 2. Trends in age-adjusted colorectal cancer incidence rates among Asian subgroups, females, California, 1988-2007

Chinese (APC, -0.6*)
Japanese (APC, -0.4)
Filipino (APC, 1.6*)
Korean (APC, 2.7*)
Vietnamese (APC, 1.4)
South Asian^ (APC, 2.8*)

Giddings et al., Cancer Causes & Control, 2012
Trends in Colorectal Cancer Screening Utilization among Ethnic Groups in California: Are We Closing the Gap?
Maxwell and Crespi, CEBP 2009

Major Ethnic Groups
Proportion up-to-date with CRC screening

Asian Subgroups
Proportion up-to-date with CRC screening

2015
Target: 78%
Lifestyle risk factors for CRC


<table>
<thead>
<tr>
<th></th>
<th>Chinese</th>
<th>Japanese</th>
<th>Korean</th>
<th>Filipino</th>
<th>Vietnamese</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 1,285</td>
<td>n = 421</td>
<td>n = 620</td>
<td>n = 659</td>
<td>n = 480</td>
<td>n = 27,400</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>29 (24–34)</td>
<td>60 (49–70)</td>
<td>46 (38–53)</td>
<td>66 (59–72)</td>
<td>33 (24–42)</td>
<td>64 (62–65)</td>
</tr>
<tr>
<td><strong>W</strong></td>
<td>16 (12–19)</td>
<td>21 (14–29)</td>
<td>15 (11–20)</td>
<td>36 (30–42)</td>
<td>16 (11–22)</td>
<td>43 (41–44)</td>
</tr>
</tbody>
</table>

Standard BMI categories: % overweight or obese (95% CI)

Asian-specific BMI categories: % at increased or high risk (95% CI)

2005 California Health Interview Survey data

Standard Body Mass Index of $\geq 25$ = overweight/obese
Asian-Specific Body Mass Index $\geq 23$ = Increased or high risk
Lifestyle risk factors for CRC

<table>
<thead>
<tr>
<th></th>
<th>Chinese</th>
<th>Japanese</th>
<th>Korean</th>
<th>Filipino</th>
<th>Vietnamese</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Consume 5 or more fruits and vegetables per day (95% CI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>47 (42–52)</td>
<td>52 (42–63)</td>
<td>59 (51–66)</td>
<td>48 (40–55)</td>
<td>58 (50–66)</td>
</tr>
<tr>
<td>W</td>
<td>38 (35–42)</td>
<td>43 (33–54)</td>
<td>32 (26–38)</td>
<td>29 (22–36)</td>
<td>31 (25–37)</td>
</tr>
<tr>
<td>% Had any alcoholic beverage in past month (95% CI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>58 (52–63)</td>
<td>65 (54–76)</td>
<td>65 (56–73)</td>
<td>55 (47–63)</td>
<td>65 (58–72)</td>
</tr>
<tr>
<td>W</td>
<td>37 (32–42)</td>
<td>52 (44–60)</td>
<td>55 (49–61)</td>
<td>38 (33–43)</td>
<td>27 (20–35)</td>
</tr>
<tr>
<td>% Binge drink in past 30 days (95% CI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>8 (5–11)</td>
<td>20 (11–29)</td>
<td>21 (15–28)</td>
<td>23 (16–30)</td>
<td>17 (11–24)</td>
</tr>
<tr>
<td>W</td>
<td>3 (2–4)</td>
<td>15 (8–22)</td>
<td>12 (7–17)</td>
<td>7 (3–11)</td>
<td>4 (1–6)</td>
</tr>
<tr>
<td>% Current smoker (95% CI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>15 (11–18)</td>
<td>13 (4–23)</td>
<td>30 (22–37)</td>
<td>25 (18–32)</td>
<td>31 (23–38)</td>
</tr>
<tr>
<td>W</td>
<td>3 (2–5)</td>
<td>16 (9–23)</td>
<td>12 (6–18)</td>
<td>6 (3–8)</td>
<td>–</td>
</tr>
</tbody>
</table>

2005 CHIS data

Why focus on Asian Americans?

- CRC incidence is increasing in some Asian subgroups in California (while decreasing in the general population)

- CRC screening rates are low in some Asian subgroups

- Asian Americans adopt “Western habits” and lifestyle risk factors such as obesity/overweight, smoking (in women), drinking, etc.

- Asian Americans (and Latinos) are the fastest growing populations in the United States, with an estimated increase of 43% between 2000 and 2010.
Studies in Clinical Settings to increase CRC screening in Asian American populations

- Mike Potter and colleagues, UCSF: bundeling preventive services – **FLU-FOBT program**, successfully used in **Chinese American** patients: 18 percentage pt increase in CRC screening

- Shin Ping Tu and colleagues, Univ of Washington, Seattle: 
  **RCT**: **In-Clinic Patient Education + Print Materials + Video + FOBT cards** in low income, low acculturation **Chinese** patients versus Usual Care Control

<table>
<thead>
<tr>
<th>Ever screened</th>
<th>Baseline</th>
<th>6 Mos Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control: 42%</td>
<td>CRC screening not current</td>
<td>27.6%</td>
</tr>
<tr>
<td>Intervention: 40%</td>
<td></td>
<td>69.5%</td>
</tr>
</tbody>
</table>
Studies in Community Settings

- Community & Provider Education vs. Control
  - Community = Media Campaign, Health Ed Materials, Phone Hotline
  - Provider = Seminars, Newsletters, DVDs

- SF Bay Area vs. Houston (Alameda & Santa Clara vs. Harris counties)

- N = 533, panel surveys in each community
  - Low Income Vietnamese (40% with household income < $20,000)
  - 22% un-insured
  - phone directory sample using 37 most common Vietnamese surnames

<table>
<thead>
<tr>
<th>INTERVENTION (SF Bay Area)</th>
<th>CONTROL (Houston area)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline</strong></td>
<td><strong>Follow-Up</strong></td>
</tr>
<tr>
<td>FOBT past year</td>
<td>27%</td>
</tr>
<tr>
<td>Sig/Col past 5 yrs*</td>
<td>20%</td>
</tr>
</tbody>
</table>
Increasing CRC Screening among Filipino Americans
(Maxwell, Bastani, Danao, Crespi, UCLA. ACS 2004-2009, )

Recruitment of subjects in 45 CBOs and churches

Baseline Interview (N=906)
RANDOMIZATION of subjects who are non-adherent at baseline (N=548)

Control
(Exercise)

Intervention 1
(Education, FOBT kit* + reminder letter * + letter to provider*)

Intervention 2
(Education, NO FOBT kit* + reminder letter * + letter to provider*)

6 month telephone follow up: any CRC screening during follow-up

Verification of self-reported screening

* Evidence-based intervention strategies
Filipino American Health Study (listed on Rtips)
(Maxwell, Bastani, Danao, Crespi, UCLA. ACS 2004-2009)

Multi-component intervention: small group education by health professional in community setting, print materials, take home FOBT kit, reminder letter to participant and letter to physician
Intervention was broadly effective
# Efficacy of combinations of intervention components

<table>
<thead>
<tr>
<th>Intervention components</th>
<th>Intervention combination subgroups</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=81</td>
<td>N=74</td>
</tr>
<tr>
<td>Small-group session, print materials &amp; reminder letter</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>FOBT kit</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Letter to provider</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Estimated percent screened</td>
<td>27%</td>
<td>28%</td>
</tr>
<tr>
<td>OR vs. control group</td>
<td>7.0 (1.5, 33.1)</td>
<td>9.2 (2.0, 42.7)</td>
</tr>
<tr>
<td>P-value</td>
<td>.015</td>
<td>.005</td>
</tr>
</tbody>
</table>

Maxwell et al 2011, Cancer Causes and Control
## Overall, Scant Research in Asian Americans

<table>
<thead>
<tr>
<th></th>
<th>Clinical Settings versus</th>
<th>Community Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workforce</strong></td>
<td>Health Professionals</td>
<td>Volunteers</td>
</tr>
<tr>
<td><strong>Fit with mission</strong></td>
<td>Focus on health</td>
<td>?</td>
</tr>
<tr>
<td><strong>Reach of Programs</strong></td>
<td>Limited to those who</td>
<td>Potentially broader reach (large proportion uninsured)</td>
</tr>
<tr>
<td></td>
<td>engage with health care</td>
<td>But … still need access to medical system to get screened</td>
</tr>
<tr>
<td></td>
<td>system</td>
<td></td>
</tr>
<tr>
<td><strong>Sustainability of</strong></td>
<td>Good chance if</td>
<td>May depend on technical assistance and financial resources</td>
</tr>
<tr>
<td><strong>Programs</strong></td>
<td>incorporated into the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>system</td>
<td></td>
</tr>
</tbody>
</table>
Percent Uninsured by Race/Ethnicity (Adults 55-64 yrs)

Source: Kaiser Commission on Medicaid and the Uninsured/Urban Institute analysis of 2009 ASEC Supplement to the CPS
CDC's Colorectal Cancer Control Program (CRCCP)

Goal: to increase colorectal cancer screening rates among men and women aged 50 years and older from about 64% to 80% in the funded states by 2014

Program has two components: screening promotion and screening provision

Funding for
- 25 states and
- 4 tribes
CRCCP Grantee Survey 2011: Screening Promotion
Most Use > 1 Evidence based Intervention

% Using Each EBI

- Small Media
- Client Reminders
- Reduce Structural Barriers
- Provider Assessment/Feedback
- Provider Reminders

Note. Mean EBIs used = 3.1 (SD = 1.4)
CRCCP Grantee Survey 2011 (28 grantees): Most Offer Colonoscopy or FIT

% Using as Primary Test

- Colonoscopy
- FIT
- FOBT
- Sigmoidoscopy
- Changed test past year

0  20  40  60  80  100
Conclusions

- Need more clinic & community based intervention research
  - to inform and connect underserved groups to services
- Very few community-based interventions tested
  - Most focused on single ethnic group
  - But this is very inefficient
- More research needed to develop interventions that will work across ethnic groups with minimal tweaking
  - Need to include sufficient sample sizes to conduct sub-group analyses
- Once evidence base on effective interventions is available
  - important to conduct dissemination research to assure wide adoption of the interventions
  - Need more research on how to increase sustainability of programs
Publications


