

Differences in breast and colorectal cancer incidence in the US in Asian Americans and Hispanics

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Background

- Incidence of breast cancer and colorectal cancer (CRC) present substantial difference by racial/ethnic subgroups and nativity.
- Earlier reports from Japanese migrants to Hawaii have shown that breast cancer incidence rates continued to increase from native Japanese to 1st generation and then to 2nd generation migrants, but CRC incidence rates were similar between 1st and 2nd generation migrants, supporting a greater role of early-life risk factors for breast cancer.
- Nativity-specific incidence rates based on the 1988-2004 California Cancer Registry have shown that breast cancer incidence for several (including Chinese, Filipino, and Hispanic women) but not all (Japanese) immigrant populations were higher among the US-born than the foreign-born counterparts.
- For CRC, incidence rates among US-born individuals were higher (Chinese men, Filipino men and women), similar (Chinese women), or lower (Japanese men and women) than foreign-born individuals.
- Annual percent changes were different depending on nativity.
- However, updated analysis of nativity-specific incidence have not been conducted due to the lack of nativity-specific population estimates.

Objectives: We utilized the American Community Survey (ACS) data to estimate incidence rates of breast and CRC by racial/ethnic subgroups and nativity (US-born vs. foreign-born) among Asian Americans and Hispanics in California.

Methods

- Data: 2011-2015 California Cancer Registry data
- Foreign-born/US-born population was estimated using the ACS Public Use Microdata Sample (PUMS) data.
 - We calculated % foreign-born (FB) for Hispanics for each age-sex subgroup.
 - For each Asian subgroup, we calculated the same %FB separately for single race and mixed-race groups. We then calculated the weighted average of % FB among the single race group and % FB among the mixed race group for each age, sex, and ethnicity subgroup, and applied these to the age-sex-specific population estimates of the Asian subgroup.

References: Kolonel et al., Nat Rev Cancer 2004, 4:519; Gomez et al., AJPH 2010, 100:5125; Ladabaum et al., AJG 2013, 109:579

Fig 1. Female breast cancer AAIR by race/ethnicity and nativity, California, 2011-2015.

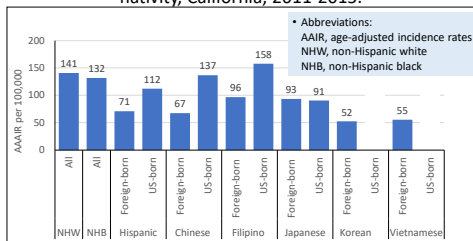
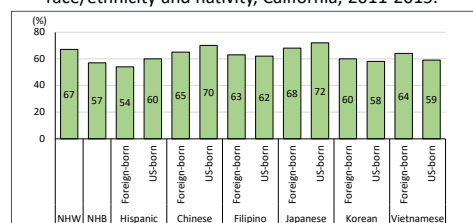


Fig 2. Localized stage proportion, female breast cancer by race/ethnicity and nativity, California, 2011-2015.



Results and Discussion:

- Breast cancer AAIRs were higher in US-born than foreign-born women among Hispanics and Asian subgroups except among Japanese women. The rates among US-born Korean and Vietnamese women were ~200 and ~400 per 100,000, respectively (data not presented due to the modest case counts (<200)); further examination is warranted.
- Foreign-born Hispanics, Chinese, and Japanese breast cancer patients were diagnosed at a later stage than their US-born counterparts. In particular, foreign-born Hispanic women had the lowest proportion of localized stage diagnosis, followed by NHB women.
- CRC AAIRs among US-born individuals were higher for Hispanic and Filipino) or lower (Chinese and Japanese) than foreign-born individuals in both men and women.

Fig 3. Colorectal cancer AAIR by sex, race/ethnicity and nativity, California, 2011-2015.

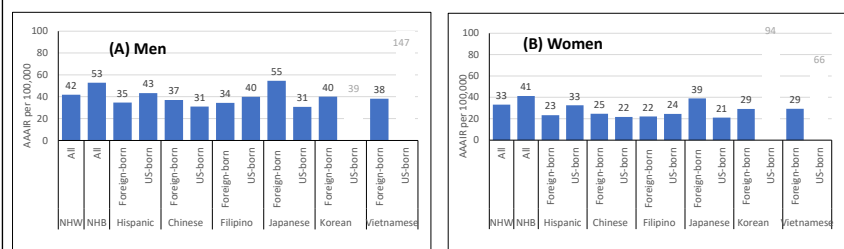
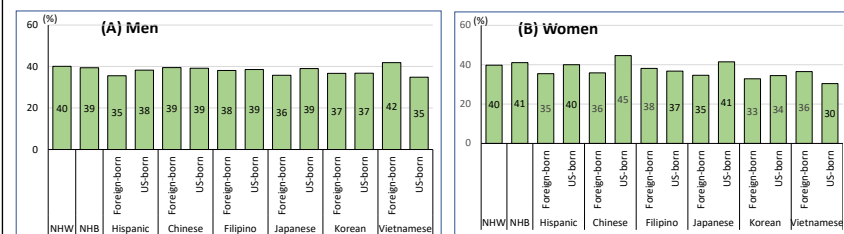


Fig 4. Localized stage proportion, CRC by sex, race/ethnicity and nativity, California, 2011-2015.



- Although the numbers are small, CRC AAIRs were much higher in US-born Korean women and Vietnamese men and women than their foreign-born counterparts (data not shown).
- Among male CRC patients, foreign-born Hispanics and Japanese had a lower percentage of localized stage diagnosis than their US-born counterparts. Among women, this pattern was observed for Hispanic, Chinese, and Japanese women. Surprisingly, the proportion of localized stage disease was lowest for US-born Vietnamese women (30%), warranting continued monitoring of cancer control and prevention efforts among US-born immigrants.

Conclusions: Accurate estimation of the nativity-specific incidence rates will provide important information in planning efficient cancer prevention and control efforts. Cancer trends in US-born immigrants warrant continued monitoring.