ORIGINAL ARTICLE ■ *Health Services Research and Policy*

Current Gaps in Breast Cancer Screening Among Asian and Asian American Women in the United States

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Learning Objectives

By the end of this journal club, participants will be able to:

1. Realize the diversity of Asian America and the subsequent importance of data disaggregation
2. Be familiar with current breast cancer screening guidelines
3. Understand barriers to breast cancer screening that Asian and Asian American women face
4. Identify ways in which participants can bridge gaps in care for this patient population

Module Outline

I. <u>Case</u>
II. Background
III. Article Overview
IV. Clinical Questions
V. Key Points

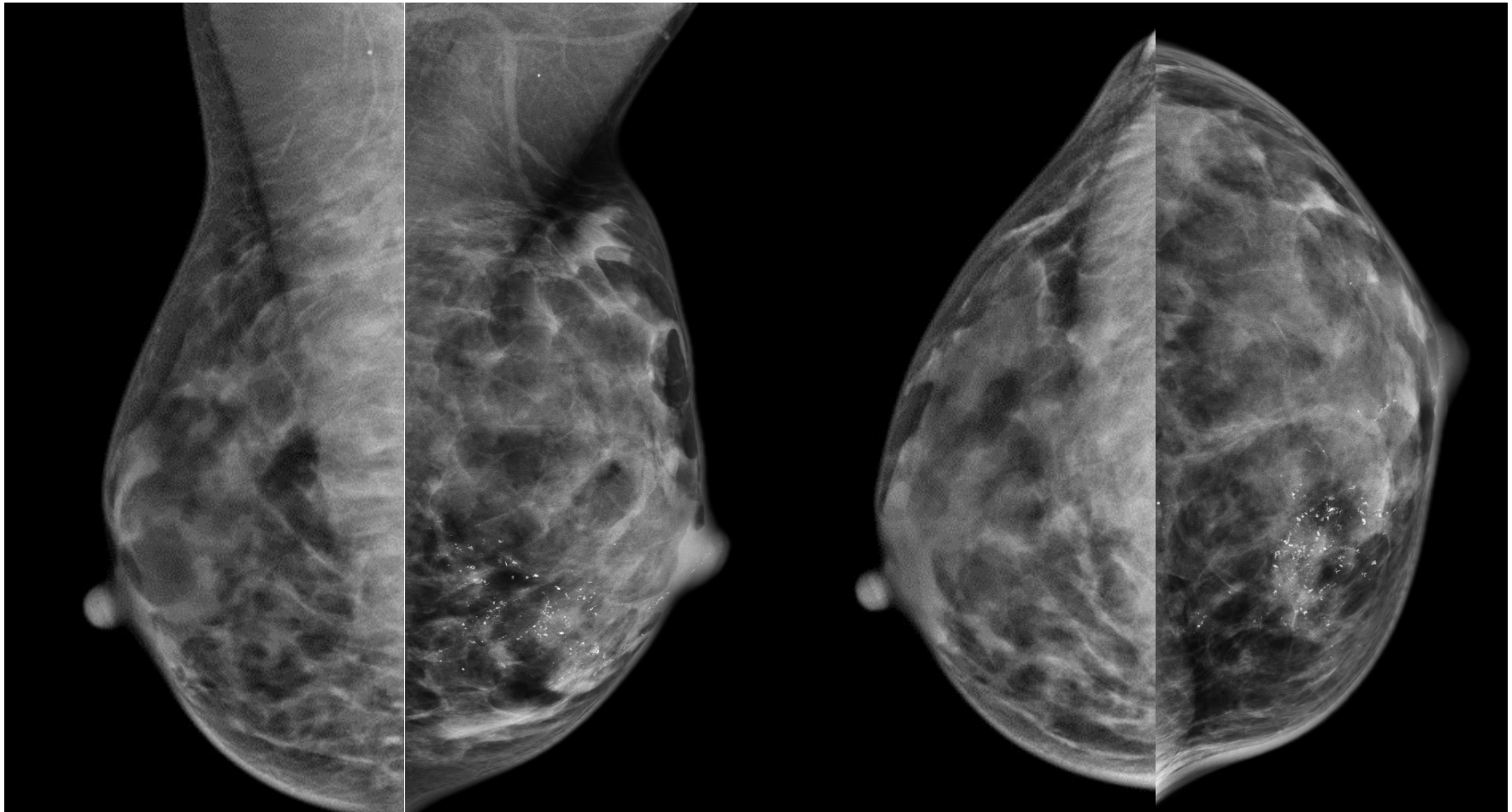
Case

A 40-year-old (non-Hispanic White) female comes into clinic for breast cancer screening.

She has heard that she should get a mammogram (X-ray of breast) every year starting at age 40.

Her mammogram:

40yo baseline bilateral screening MLO and CC mammograms



Case Cont.

Following her diagnostic mammogram, the patient is scheduled for a biopsy…

The biopsy results come back:

DUCTAL CARCINOMA IN SITU

Case Questions

1. How might this case have played out if the patient were an Asian or Asian American female?

2. What barriers to breast cancer screening do Asian or Asian American females face?

3. What are some ways in which we can bridge these gaps as physicians?

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Asian America

Six Asian origin groups in the U.S. had populations of at least 1 million people in 2019 ...

In thousands

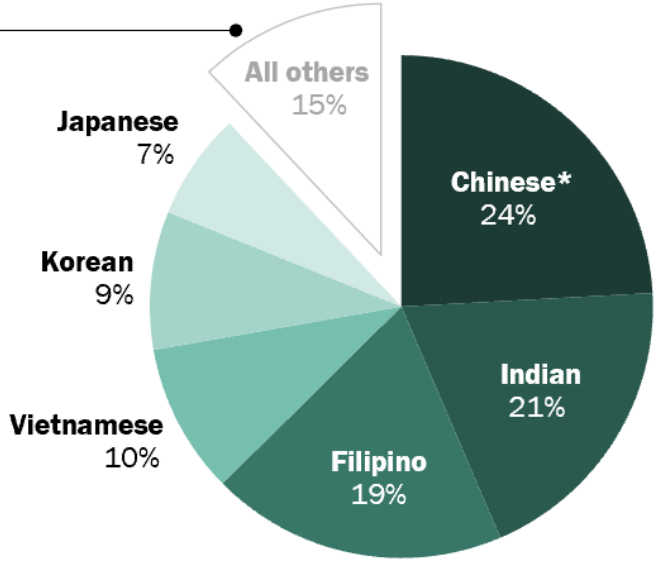
Origin group	Population 2019	Population 2010	Population 2000	% growth, 2000–2019
Chinese, with Taiwanese	5,399	4,010	2,865	88%
Taiwanese	226	230	145	56%
Chinese, except Taiwanese	5,172	3,780	2,720	90%
Indian	4,606	3,183	1,900	142%
Filipino	4,211	3,417	2,365	78%
Vietnamese	2,183	1,737	1,224	78%
Korean	1,908	1,707	1,228	55%
Japanese	1,498	1,316	1,160	29%
Pakistani	554	409	204	171%
Thai	343	238	150	128%
Cambodian	339	277	206	64%
Hmong	327	260	186	75%
Laotian	254	232	198	28%
Bangladeshi	208	147	57	263%
Nepalese	198	59	9	2,005%
Burmese	189	100	17	1,031%
Indonesian	129	95	63	105%
Sri Lankan	56	45	25	127%
Malaysian	38	26	19	106%
Mongolian	27	18	6	358%
Bhutanese	24	19	<1	11,288%
Okinawan	14	11	11	33%

Asian America

... accounting for 85% of the nation's Asian population

% of the U.S. Asian population that is ___, 2019

Pakistani	2%
Thai	2%
Cambodian	2%
Hmong	1%
Laotian	1%
Taiwanese	1%
Bangladeshi	1%
Nepalese	1%
Burmese	1%
Indonesian	1%
Sri Lankan	<1%
Malaysian	<1%
Mongolian	<1%
Bhutanese	<1%
Okinawan	<1%



Note: "All others" includes the category "Other Asian, not specified." Figures do not add to 100% because individuals identifying with more than one Asian group are included in all groups.

* Includes those identifying as Taiwanese; for more information, see "How many Taiwanese live in the U.S.? It's not an easy question to answer."

Source: For 2019, Pew Research Center analysis of 2019 American Community Survey 1-year estimates (Census data). For 2000 and 2010, census counts from U.S. Census Bureau, "The Asian Population: 2010" Census Brief, Table 6.

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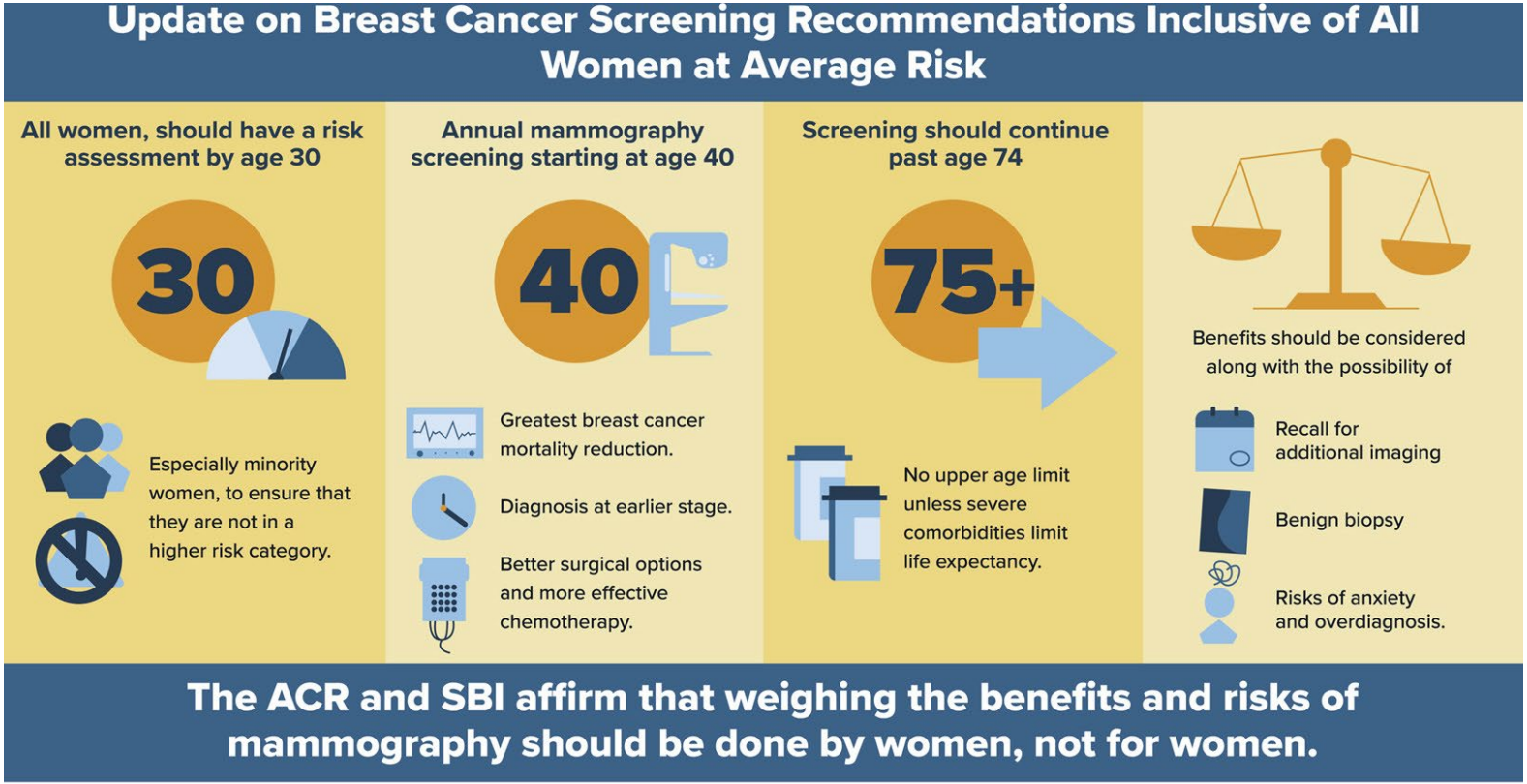
Breast Cancer Screening Guidelines



JACR VISUAL ABSTRACT

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Article Specifics

Purpose: to characterize challenges faced by Asian and Asian American women in the United States related to cultural stigma, socioeconomic status, and overall access to breast cancer care

Journal: Journal of the American College of Radiology

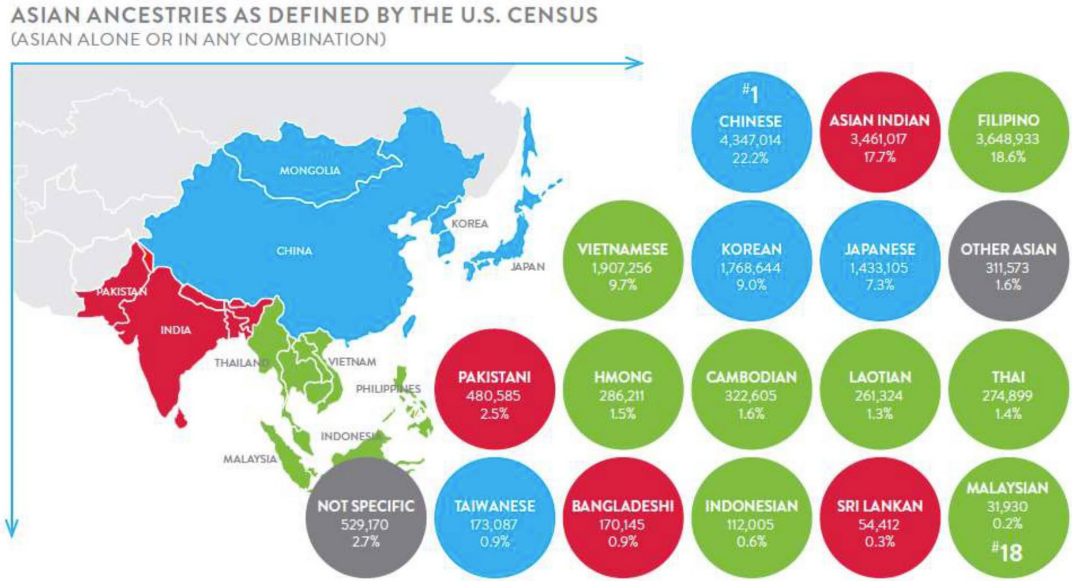
Study type: gap analysis

Population: 20 million Asian and Asian American women in the United States

Data: breast cancer incidence rates and mortality rates

Population

Asian American countries of origin



Source: 2013 American Community Survey 1-Year Estimates, Asian Alone or in Any Combination
Regional groupings are based on geographic representation.

Challenges

1. Importance of Disaggregation
2. Health Belief Model
3. Cultural Factors
4. Health System-Related Factors
5. Social and Environmental Factors
6. Patient- and System-Enabling Factors

Importance of Disaggregation

- **Subgroups differ in breast cancer incidence rates**

Laotian women: 36.9 per 100,000 women

Japanese women: 126.5 per 100,000 women

- **More time in US -> higher breast cancer incidence rates**

Nulliparity/low parity, late age at 1st full-term pregnancy, no/short duration breastfeeding, hormone therapy use, Western diet

US-born Chinese, Japanese, and Filipina women's breast cancer incidence rates almost on par with non-Hispanic White women

Importance of Disaggregation Cont.

- **Subgroups differ in breast cancer mortality rates**

Japanese women and “other Asians” -> lower mortality rates

Other self-reported Asian groups’ breast cancer survival rate on par with non-Hispanic White women

- **Filipina women have the highest breast cancer mortality rate**

Younger age at diagnosis, development of more aggressive disease

Health Belief Model

(1) Perceived susceptibility (will I get breast cancer?)

(2) Perceived seriousness (will I have poor health outcomes without screening?)

(3) Perceived benefits (will screening lead to good treatment results?)

(4) Perceived barriers (can I access screening?)

Patient-level factors: patient knowledge, culture, SES

System-level factors: health policy, hospital characteristics, resource availability

Cultural Factors

- **Poor patient-provider interactions**

Background/values, concerns, respect

- **Poor patient-provider communication**

Low SES, recent immigration (lack of access, negative connotation)

- **Poor understanding**

Susceptibility, benefits, cost

Cultural Factors Cont.

- Collectivism/family
- Spirituality
- Traditional/complementary medicine
- Language!

Chinese, Korean, Indian, Hmong women

- Fatalism AKA death sentence

Korean, Chinese, South Asian (Muslim) women

Health System-Related Factors

- **Health insurance coverage**

Korean and Vietnamese Americans, Native Hawaiians and Pacific Islanders -> lower rates of coverage

- **Privately insured patients have differences in screening utilization despite being covered**

Health care knowledge and cultural factors >> SES

- **Noncitizens - recent immigrants, undocumented immigrants**

Social and Environmental Factors

- **Income inequality**

Top 10% make 11x bottom 10%

Hmong, Bhutanese, Bangladeshi, and Burmese subgroups -> higher poverty rates

- **Women who immigrate from Asian countries are less likely to receive a mammogram and be diagnosed with early-stage breast cancer**

Ethnic enclaves!

Patient- and System-Enabling Factors

- **Korean Immigrants and Mammography-Culture-Specific Health Intervention [KIM-CHI]** -> women 40 years of age and older who had not had a mammogram in past 1 year, and husbands

Korean-language breast cancer educational video

Statistically significant increase in mammography uptake at 6 months and 15 months!

- **Churches/places of worship, community centers, grocery stores**

Patient- and System-Enabling Factors Cont.

- **Patient navigator programs** Chinatown Patient Navigation Collaborative - insurance plans, insurance coverage, patient rights, in-network PCPs, referrals for mammography screening, booklets, workshops
- **Communication workshops -> training for healthcare professionals** Communicating Across Cultural Boundaries
- **Mobile mammography, free transportation services, increased appointment times** Pink Card Program
- **EDUCATION ON ACA! (no cost sharing for screening mammography examinations)**
- **$$$ -> services and programs in communities**

Table 1. Breast cancer interventions and barriers addressed

Barriers Addressed		
Breast Cancer Awareness and Knowledge	**Cultural Factors**	**Health Care Access**
Community-based breast cancer educational programs to encourage women to engage in breast cancer screening and diagnostic imaging follow-up; for example, Witness Project & Help You Take Care of Yourself Program [50]	Distribution of breast cancer education materials, including health maintenance print outs (cards), in different languages to reach women with limited English proficiency	Patient navigation programs that educate and guide patients through the breast cancer care continuum [49]
Leveraging Asian news and media sources to distribute information about breast cancer imaging services to women who may be at increased risk of cultural barriers	Family-based education programs targeting women at screening age and their family members to improve breast imaging engagement, for example, KIM-CHI Program [17]	Increased allocation of funds in ethnic enclaves to enhance breast imaging services and CDC-funded programs targeting Asian and Asian American women to improve engagement
Improving patient correspondence materials, including "recall" lay letters, to sixth-grade reading level to meet AMA recommendation, addressing barriers related to health literacy [54]	Patient outreach utilizing ethnic networks such as churches, community centers, and grocery stores to reach specific ethnic communities	Increased flexibility of mammography appointment times to extend patient access and address competing interests including family obligations, job responsibilities, and other medical conditions
Breast cancer survivor-led education programs by women from the community to leverage shared cultural values in increasing breast cancer awareness	Training for health care professionals to better communicate and treat women from different communities; for example, Communicating Across Cultural Boundaries Program [50]	Mobile mammography screening services in underresourced communities, including ethnic enclaves, to improve access to screening mammography

CDC = Centers for Disease Control and Prevention; KIM-CHI = Korean Immigrants and Mammography-Culture-Specific Health Intervention.

Article Limitations

1. The article is not a study per se but moreso an analysis of gaps in healthcare.
2. Identifying specific gaps for Asian subgroups requires disaggregated data.
3. There are barriers to screening among racial and ethnic minority women at large. (However, it is important to focus on the unique challenges that Asian and Asian American women face in particular with access to breast cancer screening.)

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Clinical Questions

1. How might we use interventions at UNC to address these gaps in breast cancer screening for Asian and Asian American females?

2. If 6 Asian-origin groups account for 85% of the nation's Asian population, how do we ensure that the remaining 15% are heard when it comes to their screening barriers and access?

3. How do intersectionality and bi/multiracial identities further impact care?

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Key Points

1. Asian America is diverse and consists of 19+ different origin groups.

2. It is recommended that patients undergo mammography every year starting at age 40 and continuing past age 74.

3. Asian and Asian American women face unique challenges related to stigma, SES, and access to care.

4. We can address specific barriers to care through the use of interventions.

References

[1] “Solis Mammography Offers Four Compelling Reasons to Start Annual Mammograms at Age 40.” *Imaging Technology News*, 7 Mar. 2018, http://www.itnonline.com/content/solis-mammography-offers-four-compelling-reasons-start-annual-mammograms-age-40.

[2] Budiman, Abby, and Neil G. Ruiz. “Key Facts about Asian Origin Groups in the U.S.” *Pew Research Center*, https://www.pewresearch.org/fact-tank/2021/04/29/key-facts-about-asian-origin-groups-in-the-u-s/.

[3] Monticciolo, Debra L., et al. “Breast Cancer Screening Recommendations Inclusive of All Women at Average Risk: Update from the ACR and Society of Breast Imaging.” *Journal of the American College of Radiology*, vol. 18, no. 9, Sept. 2021, pp. 1280–88. *www.jacr.org*, https://doi.org/10.1016/j.jacr.2021.04.021.