**INTRODUCTION**

Breast cancer is second only to lung cancer as the leading cause of cancer deaths among women of all races and ethnicities in the United States. From 1998 to 2000, the age-adjusted breast cancer death rate was 28 per 100,000 women, and the rates differ by race/ethnicity. Nationwide, American Indian and Alaska Native women have low breast cancer incidence and death rates compared to women of other race/ethnicity groups. American Indian women have the poorest survival prognosis after diagnosis of breast cancer compared to all other races, even controlling for stage of disease.

Screening mammography facilitates early diagnosis of breast cancer, increases treatment options, and may improve survival time. A screening mammogram is a procedure performed as part of a routine checkup, not as followup on a lump or other symptom detected upon clinical breast exam or upon breast self-examination. The United States Department of Health and Human Services recommends that women ≥40 years of age be screened for breast cancer with mammography every one to two years.

A review of regional and national studies in the United States indicates that participation of American Indian women in screening mammography during the 1990s was lower than that observed for non-Hispanic White women, with rates of 35%–65% vs 57%–68%, respectively. However, these studies were based on self-reported information.

This study examines data on American Indian and non-Hispanic White women who participated in the Colorado Mammography Project (CMAP) from 1999 through 2003. As part of the National Breast Cancer Surveillance Consortium, CMAP is a National Cancer Institute-funded project studying performance of mammography in community settings.

**Study Objectives**

American Indian women have low mammography rates nationally. To our knowledge, no published studies have evaluated factors associated with adherence to recommendations for screening mammography among American Indian women. The aims of this study were to evaluate the patterns of screening mammography and factors associated with adherence to screening mammography recommendations during a five-year period from January 1, 1999, to December 31, 2003, and to compare adherence between the two racial/ethnic groups.

**Objective:** To compare adherence to screening mammography recommendations of American Indian and non-Hispanic White women in the Denver, Colorado, area.

**Design/Setting/Participants:** This study retrospectively examined adherence patterns in 229 American Indian and 60,197 non-Hispanic White women ≥40 years and older, with at least one screening mammogram in the Colorado Mammography Project (CMAP), from January 1, 1999, to December 31, 2003. The CMAP was a prospective study of women receiving mammograms at participating clinics around Denver.

**Main Outcome Measures:** Using logistic mixed models, we defined two dependent variables as annual and biennial adherence from the intervals between screening mammograms.

**Results:** Biennial adherence was substantially higher than annual adherence for both American Indian and non-Hispanic White women in our analyses. American Indian women were less likely than non-Hispanic White women to adhere to biennial recommendations in multivariate models controlling for age, family history of breast cancer, and economic status (zip code): odds ratio (OR) .4 and 95% confidence interval (CI) .2–.6. The association between American Indian race/ethnicity and annual adherence was similar, although not as strong (OR .5, 95% CI .3–.8).

**Conclusions:** American Indian women in the CMAP cohort were less likely than non-Hispanic White women to adhere to recommendations for screening mammography, both annually and biennially. Additional research is needed to explore the effect of biennial screening and other barriers among American Indian women.

**Key Words:** American Indians, Guideline Adherence, Mammography, Patient Compliance

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