

## INTRODUCTION

Colorectal cancer (CRC) incidence among persons older than 50 years old has decreased in California and nationally, but incidence rates have increased among persons younger than 50. Previous studies present incidence rates among younger persons using a wide age group of 20-49 years. Incidence rates for such a wide age group do not provide enough detail about risk among specific segments of the population, nor allow for tailored recommendations about CRC screening among young adults.

## PURPOSE

To identify CRC rates by 10-year age intervals (20-29, 30-39, and 40-49) to better understand incidence trends among younger persons.

## METHODS

We used SEER\*Stat and Joinpoint software for people diagnosed from 1989 to 2015 identified in the California Cancer Registry. Year of diagnosis was grouped by three years (1989-1991, 1992-1994, etc.) for statistical analysis. Joinpoint trends in incidence were examined by age and race, and the average annual percentage change (AAPC) in rates was quantified by age group. Age was divided into 10-year intervals (20-29, 30-39, 40-49), and race was categorized as Non-Hispanic White, Non-Hispanic Black, Hispanic, Asian/Pacific Islander, and American Indian groups.

## RESULTS

Significant AAPC increases in CRC incidence rates were observed among the 20-29, 30-39, and 40-49 age groups in both Non-Hispanic White (3.5%, 3.2%, 1.9%) and Hispanic (3.5%, 2.7%, 1.4%) populations, respectively. A significant increase was observed among the 40-49 year old Asian/Pacific Islanders (1.0%) and American Indians (4.6%). No significant increases were seen in the 20-29 and 30-39 groups among Non-Hispanic Blacks and Asian/Pacific Islanders, although the number of CRC cases in these groups was quite small.

## CONCLUSION

CRC is significantly increasing among several young age groups. Since there is no formal CRC screening recommendation for persons less than 50 years old and since evidence suggests that younger adults present with more advanced disease, these results may be useful for educating healthcare providers about CRC risk and suggest that CRC screening recommendations should be developed for this population. Continued surveillance of CRC incidence rates among young adults is warranted.

**Average Annual Percent Change (AAPC) of CRC Incidence Rates among Young People, 1989-2015**

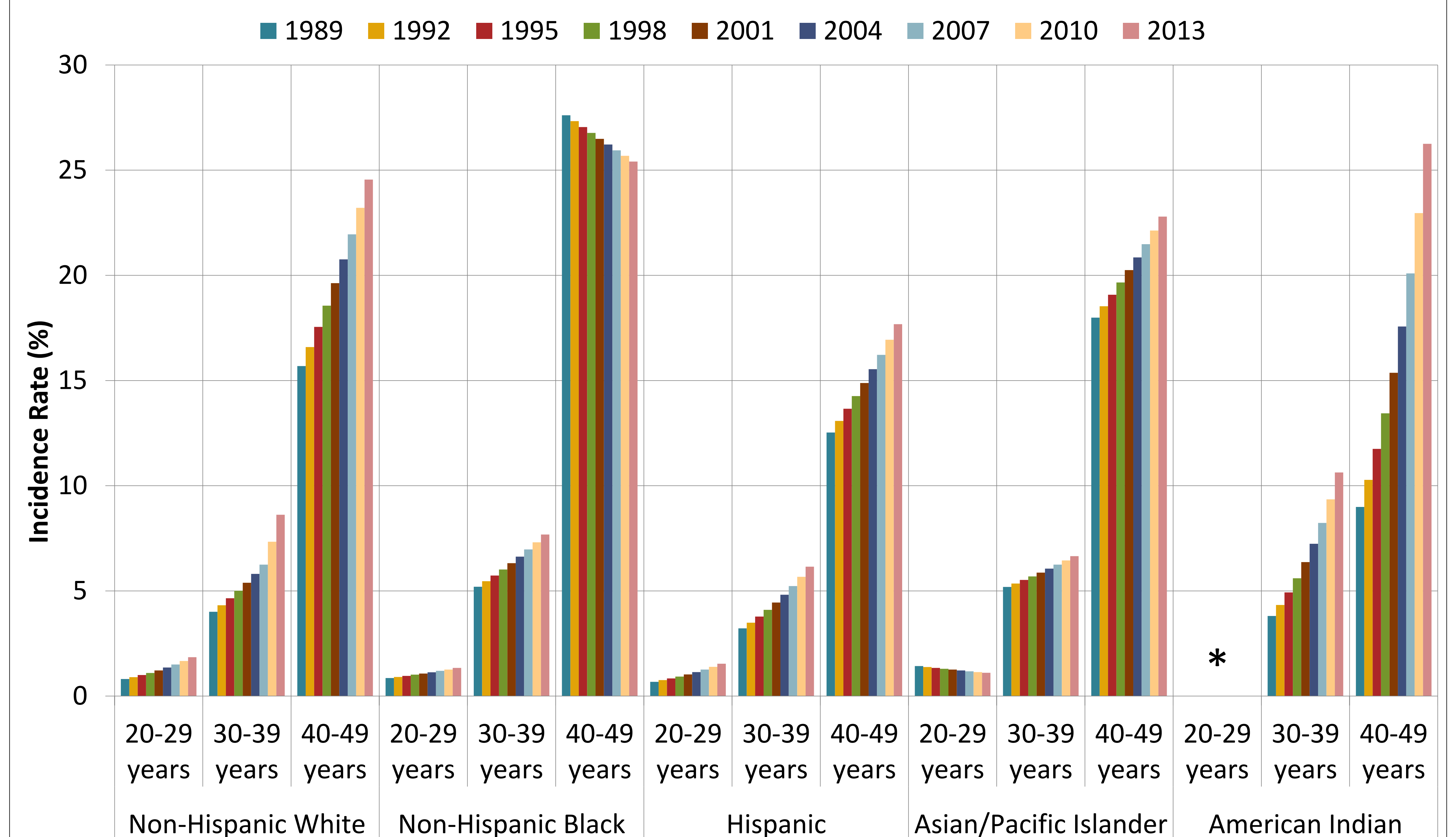
Race	Age (Years)	AAPC (%)	95% CI
Non-Hispanic White	20 – 29	3.5*	2.1 – 4.9
	30 – 39	3.2*	2.1 – 4.4
	40 – 49	1.9*	1.5 – 2.3
Non-Hispanic Black	20 – 29	1.8	- 1.1 – 4.8
	30 – 39	1.6	- 0.3 – 3.6
	40 – 49	- 0.3	- 1.0 – 0.3
Hispanic	20 – 29	3.5*	2.1 – 4.8
	30 – 39	2.7*	1.8 – 3.7
	40 – 49	1.4*	0.9 – 2.0
Asian/Pacific Islander	20 – 29	- 1.1	- 1.0 – 0.9
	30 – 39	1.0	- 0.3 – 2.4
	40 – 49	1.0*	0.4 – 1.6
American Indian	20 – 29	–	–
	30 – 39	4.4*~	1.5 – 7.3
	40 – 49	4.6*	1.6 – 7.6

\* AAPC is significantly different from zero at the alpha = 0.05 level.

– AAPC unable to be calculated due to insufficient data.

~ AAPC significance should be interpreted with caution due to small counts.

**Colorectal Cancer (CRC) Incidence Rates among Young People by Age and Race, 1989-2015**



\* Rates unable to be calculated due to insufficient data.

Rates are per 100,000 and age-adjusted to the 2000 US Standard Population.

Rates were modeled using Joinpoint software.