

Colorectal Cancer in California: an Update

Cyllene R. Morris, DVM, PhD

California Cancer Reporting and Epidemiologic Surveillance
(CalCARES) Program

UC Davis Comprehensive Cancer Center



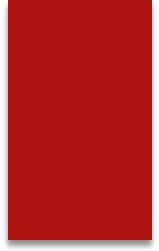
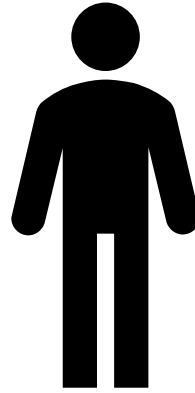
UC DAVIS
HEALTH

COMPREHENSIVE
CANCER CENTER

CCR and CalCARES Program

- ▶ California Cancer Registry (CCR): statewide cancer surveillance system, collects information on most cancers diagnosed in CA since 1988.
- ▶ Since 2012, CalCARES, UC Davis Comprehensive Cancer Center, has partnered with the California Department of Public Health.
- ▶ Program manages daily operations of the state mandated CCR

In 2017 – last
year with
complete
reporting

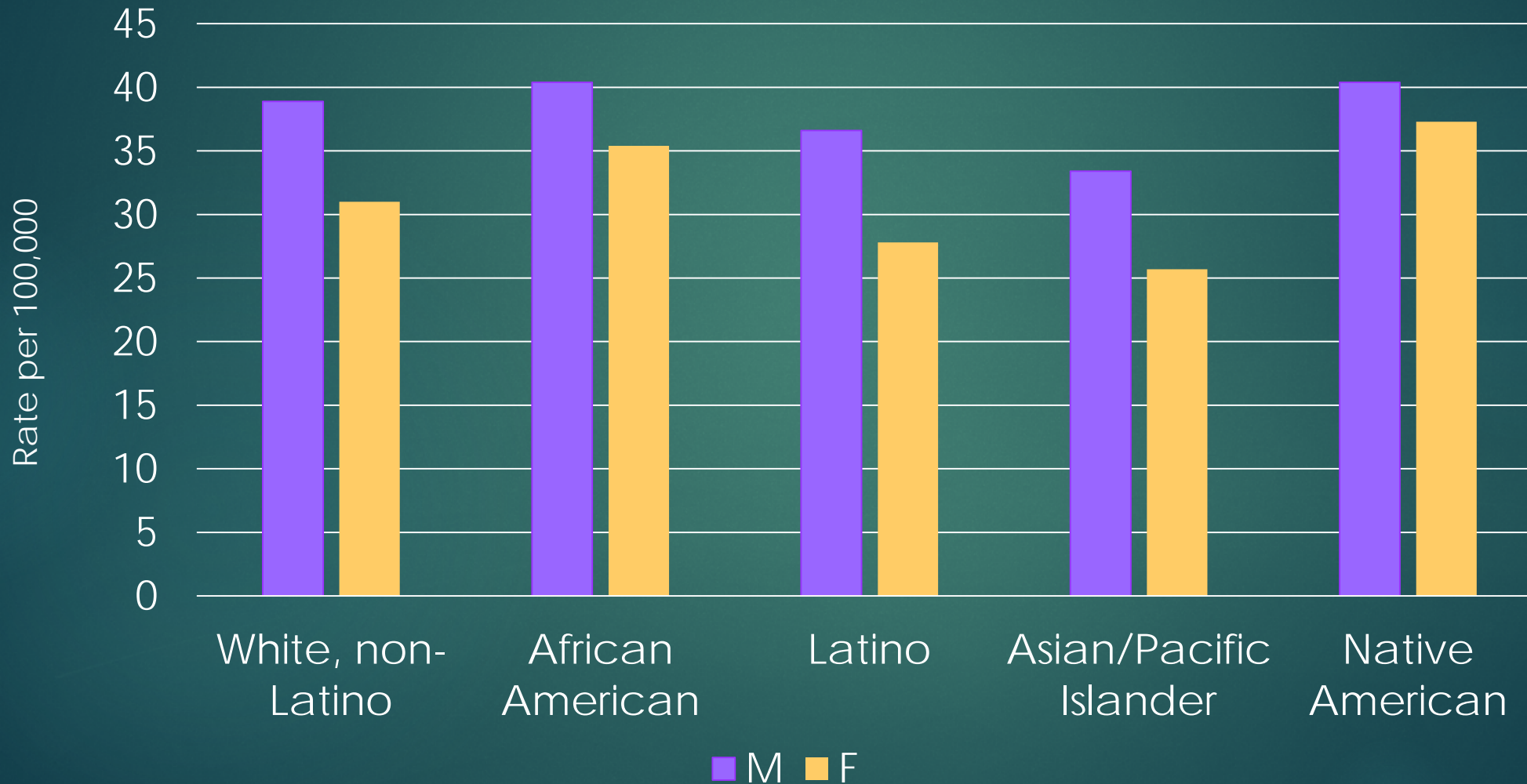


- ▶ Colorectal cancer (CRC): 3rd most common cancer among males and females, and the 3rd in number of cancer deaths
- ▶ 7,640 cases 7,006 cases
- ▶ 2,730 deaths 2,555 deaths

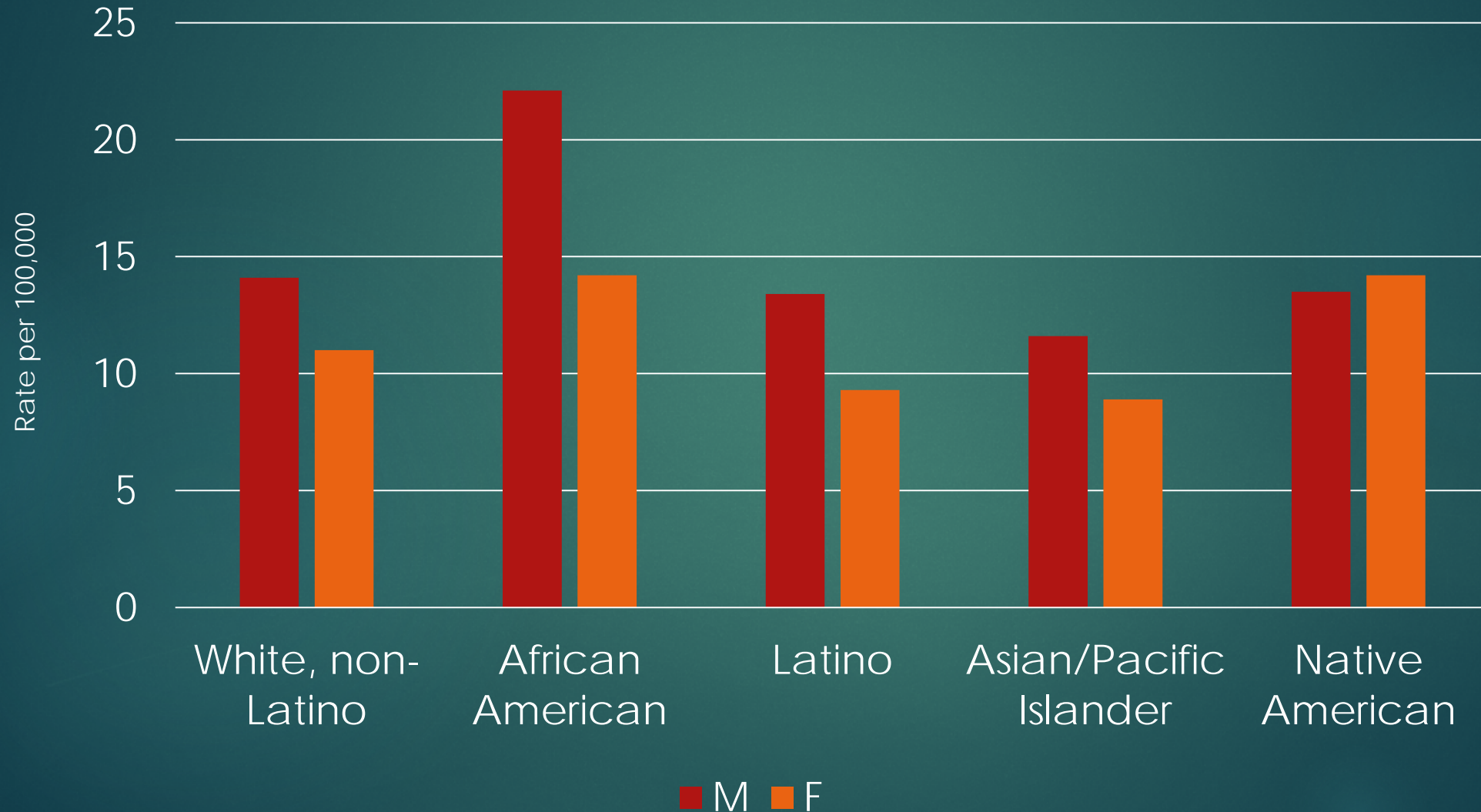
Current CRC Age-Adjusted Incidence and Mortality Rates (per 100,000) in California

	2017	1988
► Incidence		
► Males:	38.0	67.7
► Females:	30.1	49.4
► Mortality		
► Males:	14.0	27.3
► Females:	10.6	19.8

CRC Age-Adjusted Incidence Rates: California, 2017



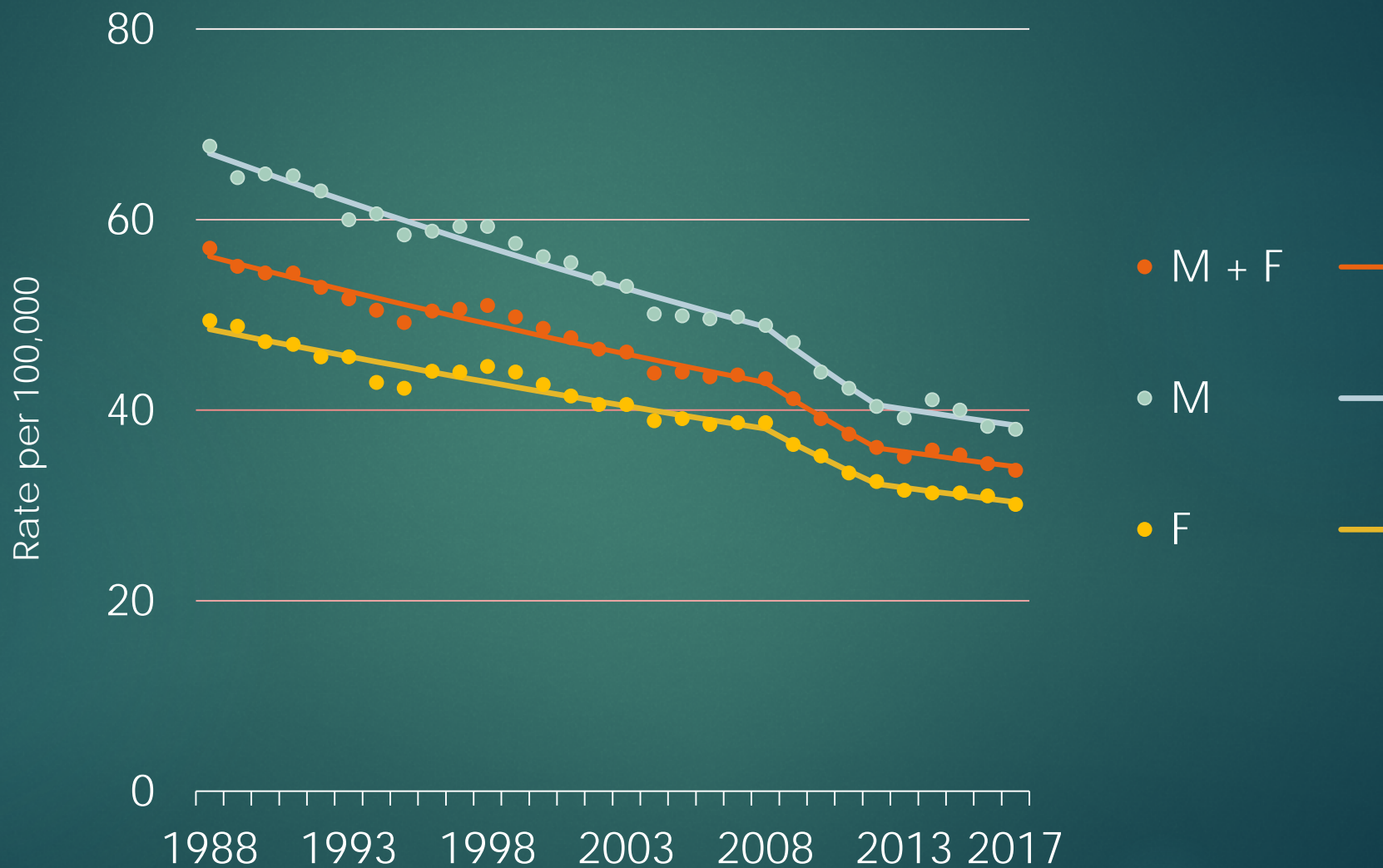
CRC Age-Adjusted Mortality Rates: California 2017



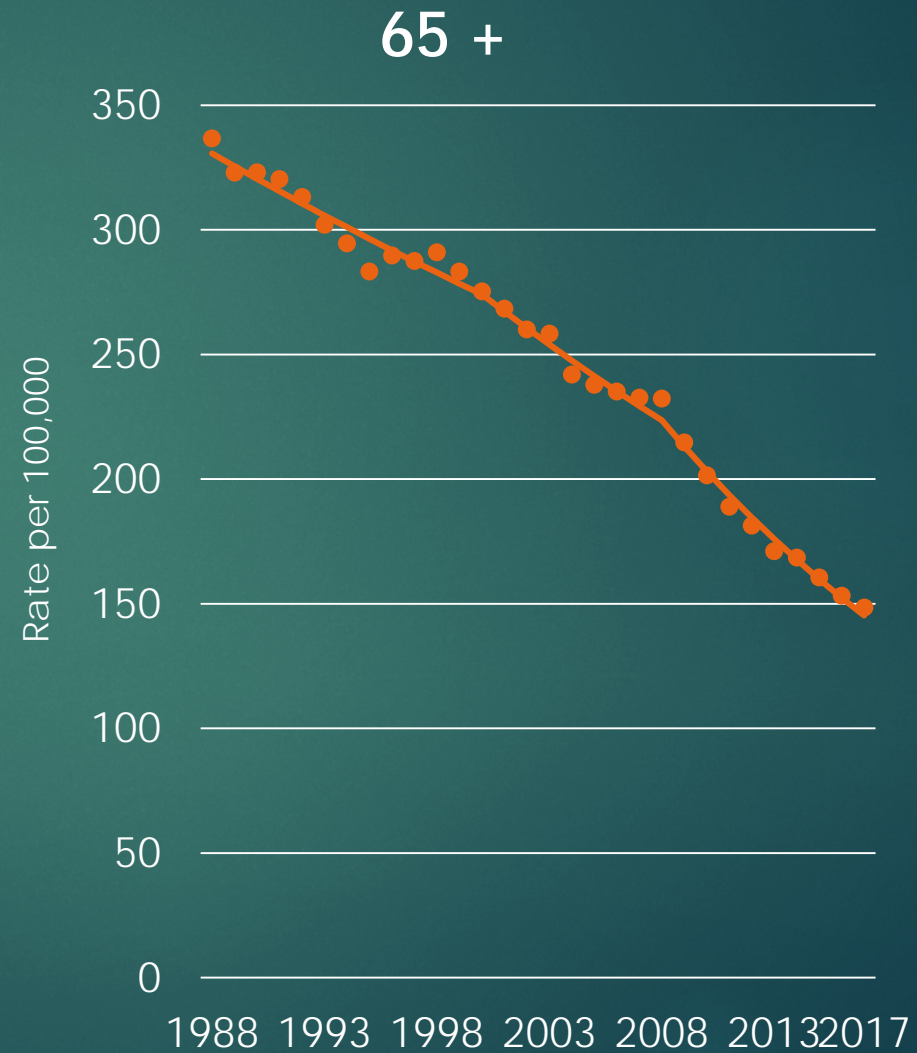
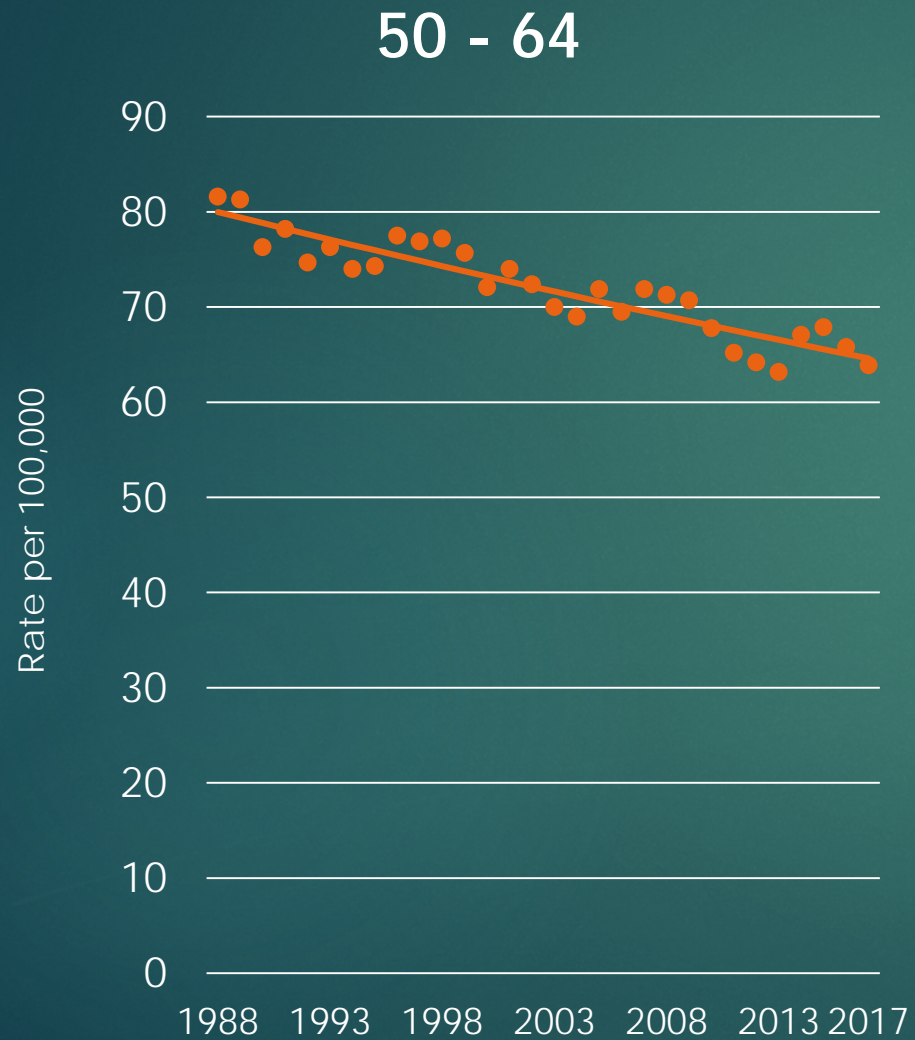
Trends in Age-Adjusted CRC Incidence Rates: California, 1988-2017

Overall
Decrease

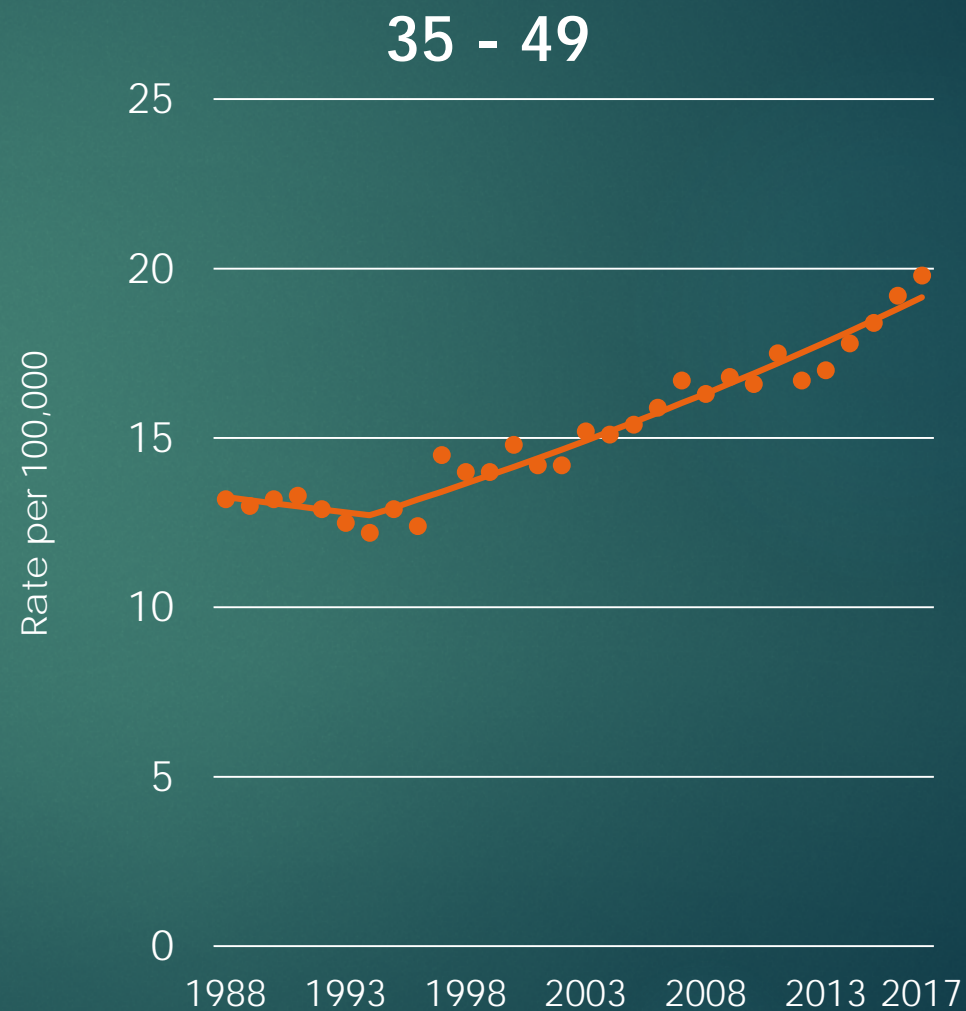
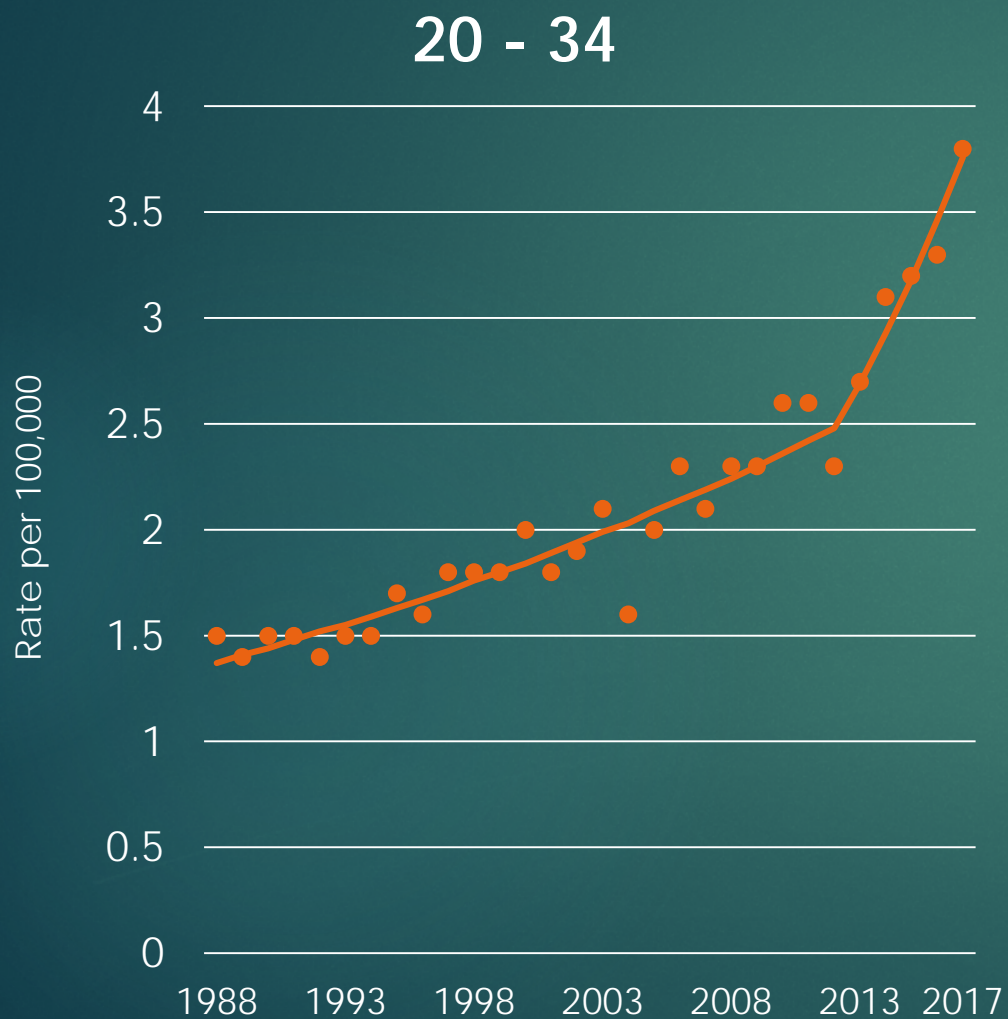
43 % M
37 % F



Incidence trends differ by age



Incidence: lower but increasing among younger persons



Overall percent change in CRC incidence: California, 1988 - 2017

Race/Ethnicity	Males		Females	
White, non-Latino	-44 %	↓	-39 %	↓
African American	-44 %	↓	-43 %	↓
Latino	-16 %	↓	-14 %	↓
Asian/Pacific Islander	-34 %	↓	-34 %	↓
Native American	41 %	≈	73 %	↑

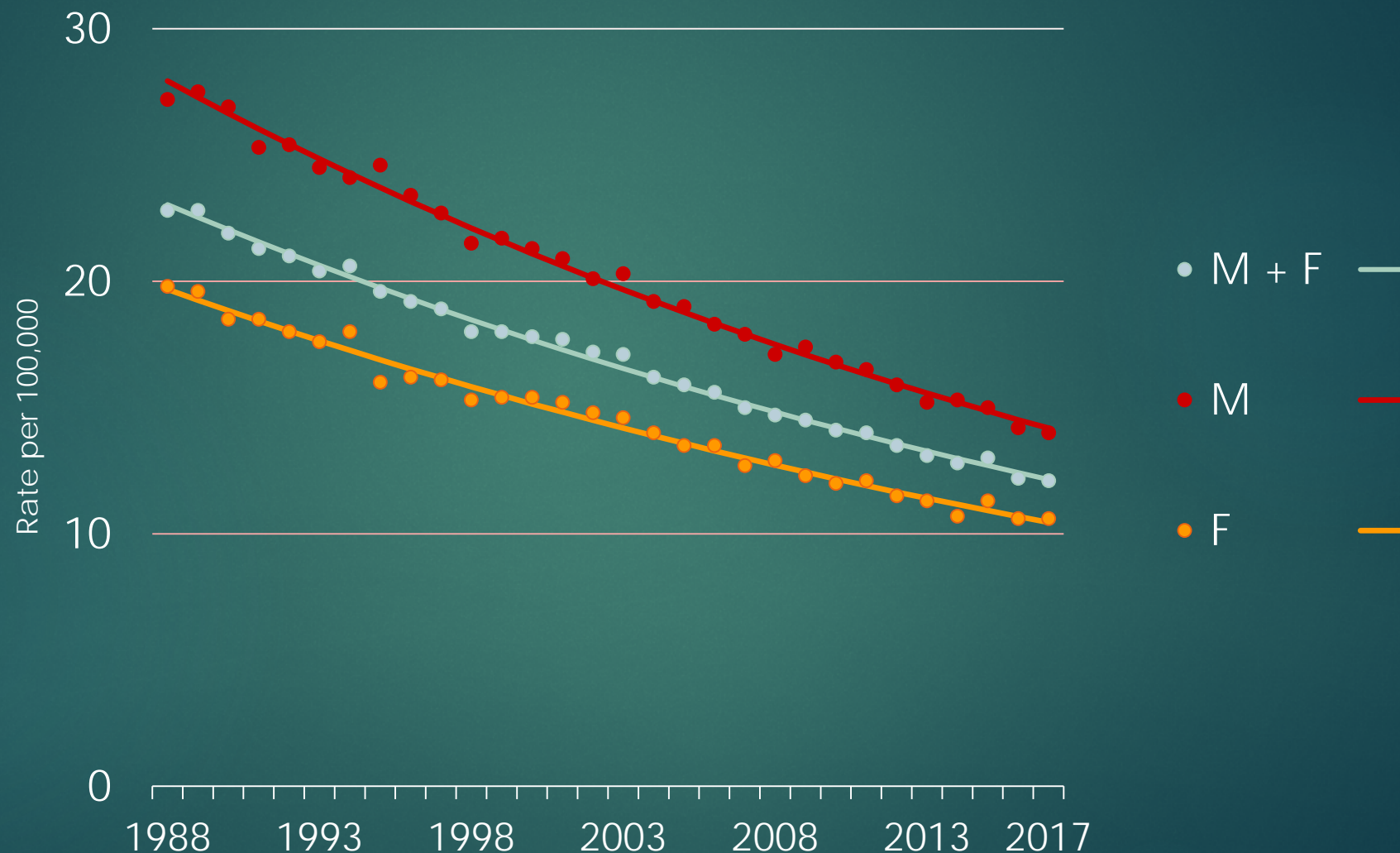
≈ Not Significant

Trends in Age-Adjusted CRC Mortality Rates: California, 1988-2017

Overall
Decrease

49 % M

48 % F



Overall percent change in CRC mortality: California, 1988 - 2017

Race/Ethnicity	Males		Females	
White, non-Latino	-53 %	↓	-48 %	↓
African American	-39 %	↓	-46 %	↓
Latino	-14 %	≈	-27 %	↓
Asian/Pacific Islander	-41 %	↓	-35 %	↓
Native American	117 %	↑	88 %	≈

≈ Not Significant

Highest Rates:

- * Colusa-Glenn-Tehama
Sierra-Yuba
- * Butte
- * San Bernardino
- * Stanislaus

Lowest Rates:

Southern Bay Area
Central Coast
Gold Country

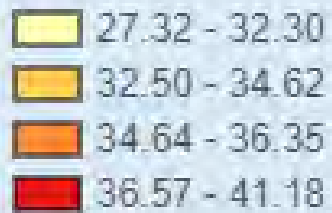
- * significant difference

Age-Adjusted Invasive Cancer Incidence Rates in California Colon & Rectum, 2013 - 2017

By County

Age-Adjusted to the 2000 U.S. Standard Population

California Rate: 34.81 / per 100,000



<https://www.cancer-rates.info/ca/>

Highest Rates:

Sierra-Yuba

- * Stanislaus
- * Shasta
- * San Bernardino
- * San Joaquin

Lowest Rates:

Bay Area / Central Coast
Eastern Sierra

* Significant difference

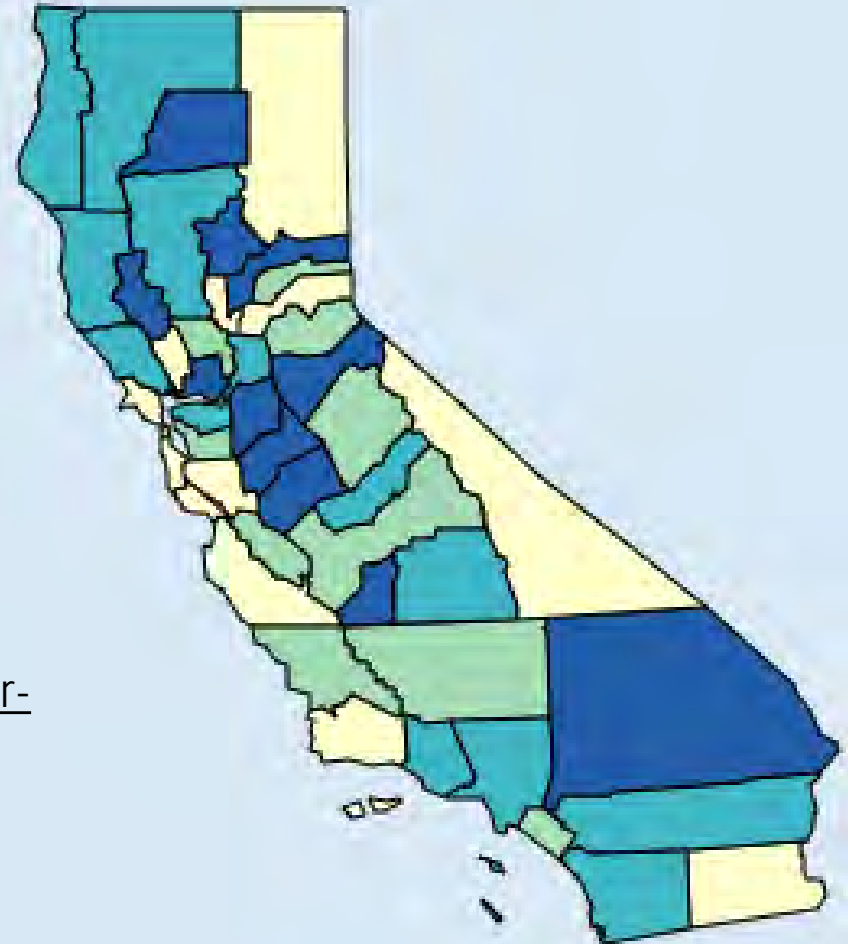
Age-Adjusted Cancer Mortality Rates in California

Colon & Rectum, 2013 - 2017

By County

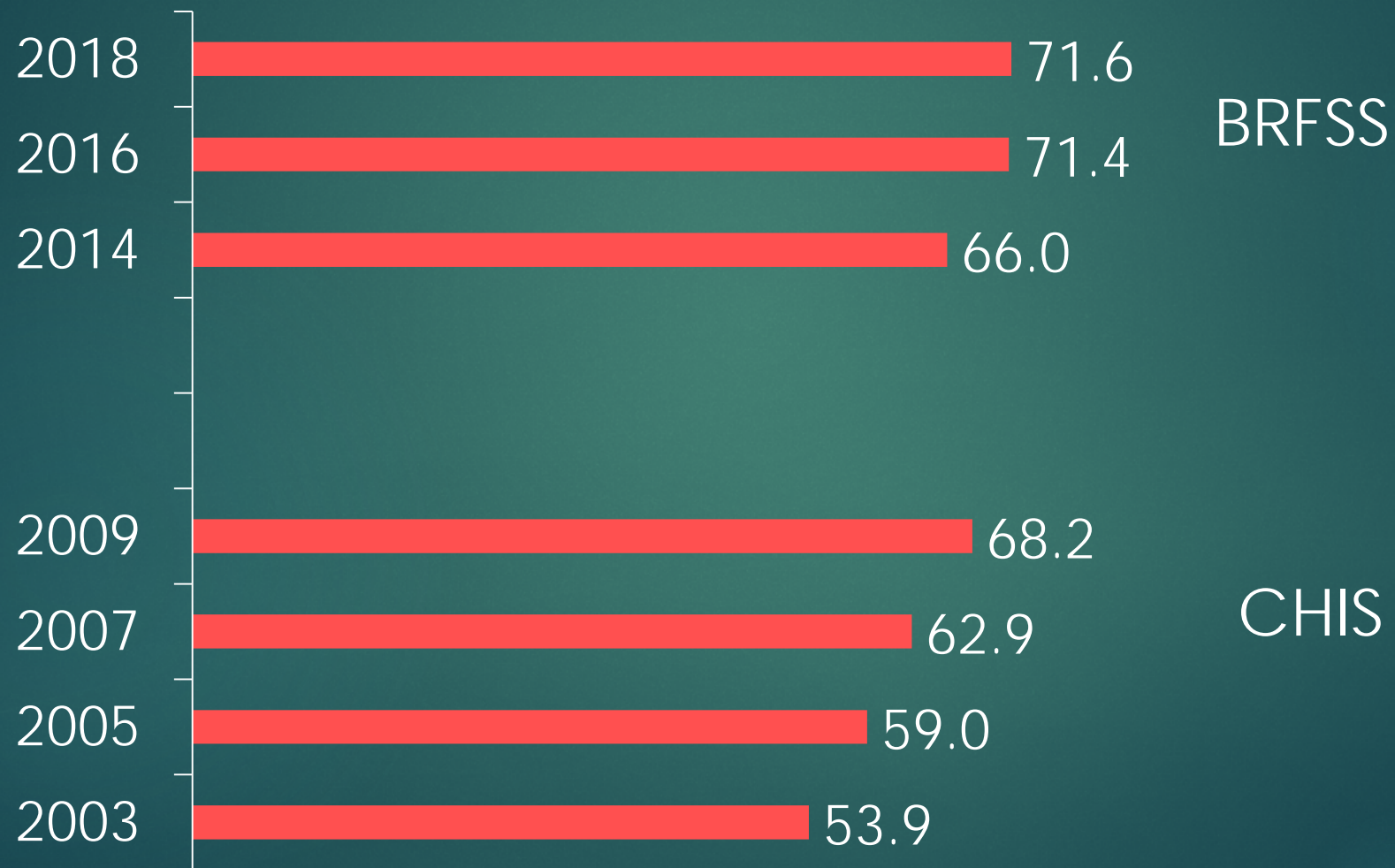
Age-Adjusted to the 2000 U.S. Standard Population

California Rate: 12.63 / per 100,000



<https://www.cancer-rates.info/ca/>

CRC Screening in California: Percent Compliance (at time of recommendation)



Late Stage Diagnoses

- ▶ Examined by Summary Stage System

- ▶ **Early**

- ▶ In Situ and localized tumors

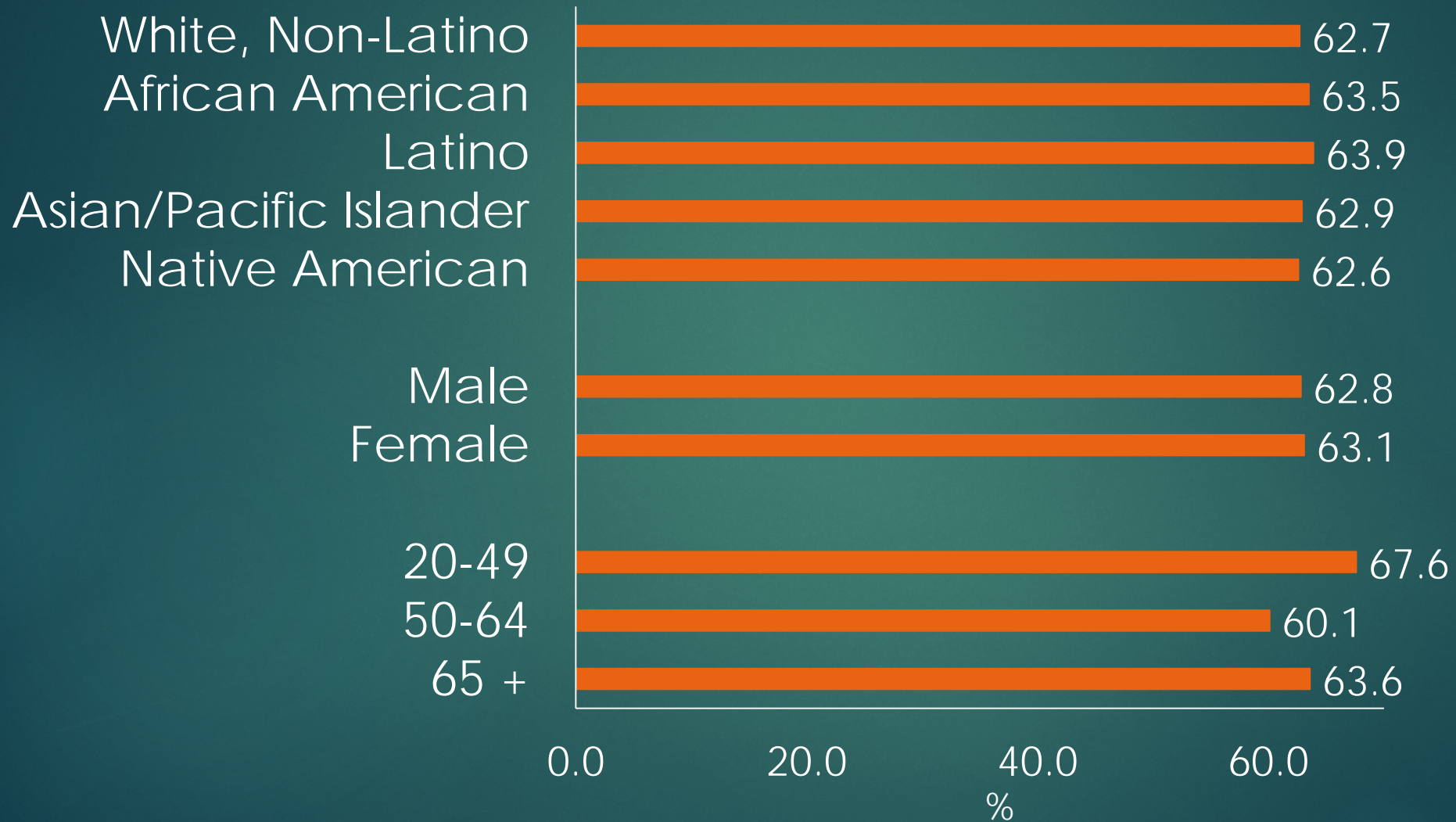
- ▶ Confined to colon and rectum

- ▶ **Late**

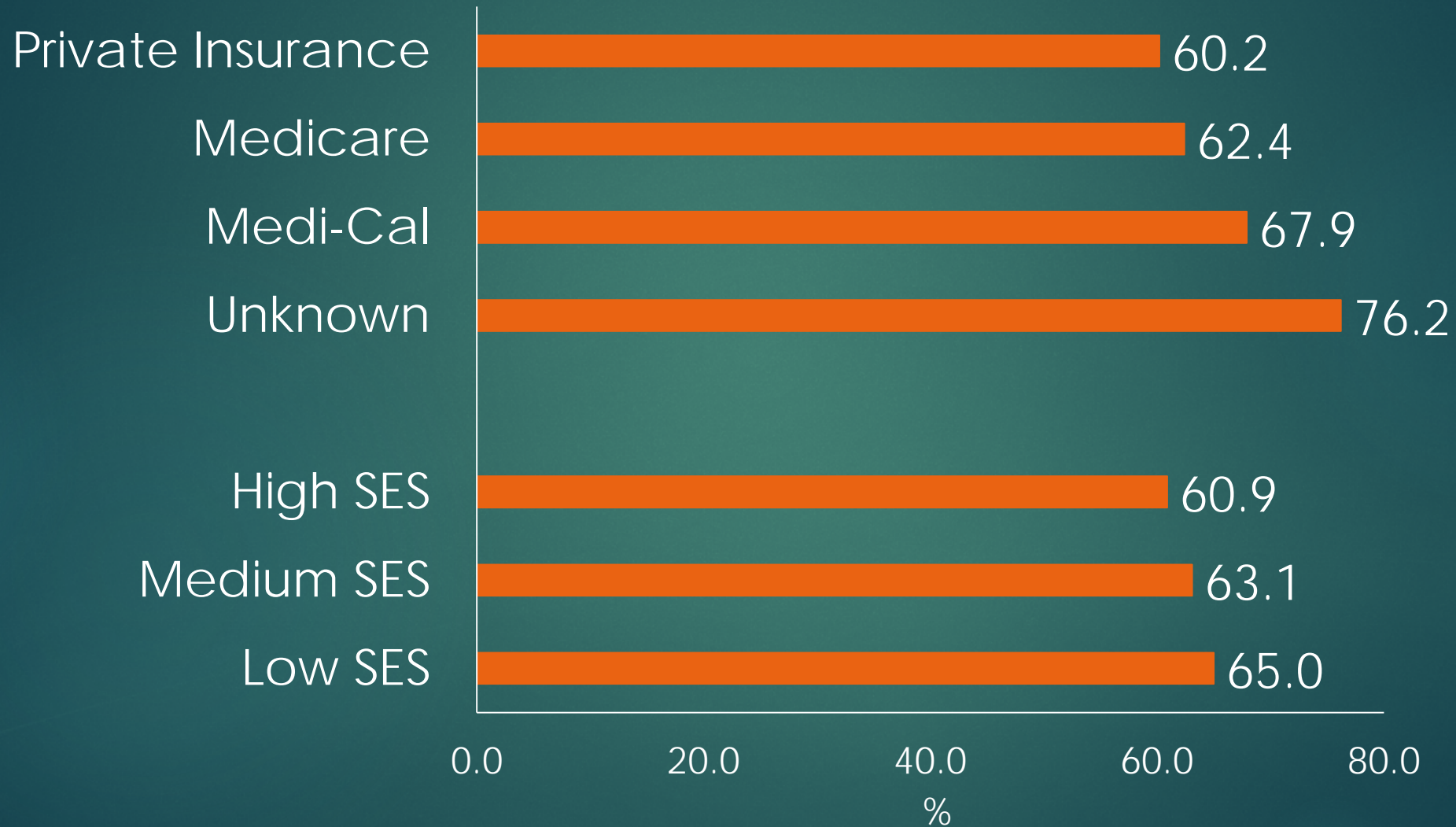
- ▶ Regional Extension and Metastatic

- ▶ Tumor invades serosa (membrane covering the colon and other organs) and beyond

Percent Late Stage Diagnoses: California 2015-2017



Percent Late Stage Diagnoses: California 2015-2017



Percent Late Stage, 2015-17:

California: 60.1%

Colusa:	72.3
Yuba:	70.8 *
Tehama:	69.9 *
Amador:	69.8 *
Plumas:	68.8
Lassen:	68.5
Mendocino:	66.4
Lake:	66.0
Santa Cruz	65.9 *

* significantly higher than State



Advanced Stage at Diagnosis by Medical Service Study Area (MSSA)

- ▶ CCR produces maps comparing proportion of late-stage cancers in each MSSA with the statewide proportion late-stage in the non-Latino white, high SES population
- ▶ Current maps only available for breast cancer, CRC will be available soon.



<https://www.californiahealthmaps.org>

- ▶ Interactive mapping for incidence of the 12 most common cancers, by sex and race/ethnicity
- ▶ Maps show data for subcounty areas in California: Census tract "Zones", MSSA, Legislative Districts
- ▶ Demographic and health information for the area selected also shown

Cancer Incidence ?

Download ▼

Print Page

Select Area Type ?

Zone ▼

Location Search

oakland Q

Date Range

5-Year: 2013-2017 ▼

Cancer Site/Type ?

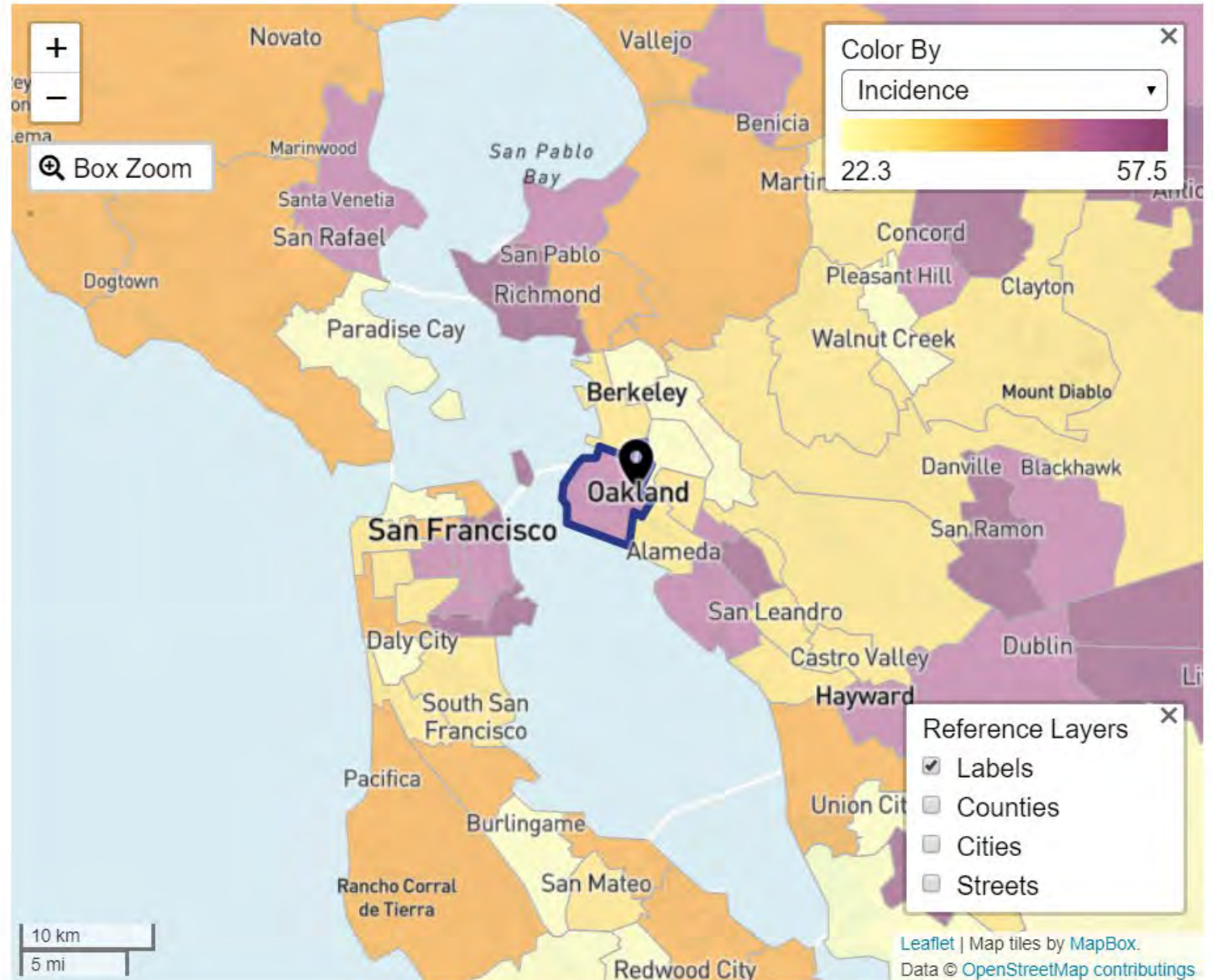
Colorectal Cancer ▼

Sex ?

All Sexes ▼

Race/Ethnicity ?

All Ethnicities ▼



Alameda 4 (A1118) ✕

Counties: Alameda County

Cities: Alameda, Oakland

5-Year: 2013-2017

Colorectal Cancer ✕

All Sexes

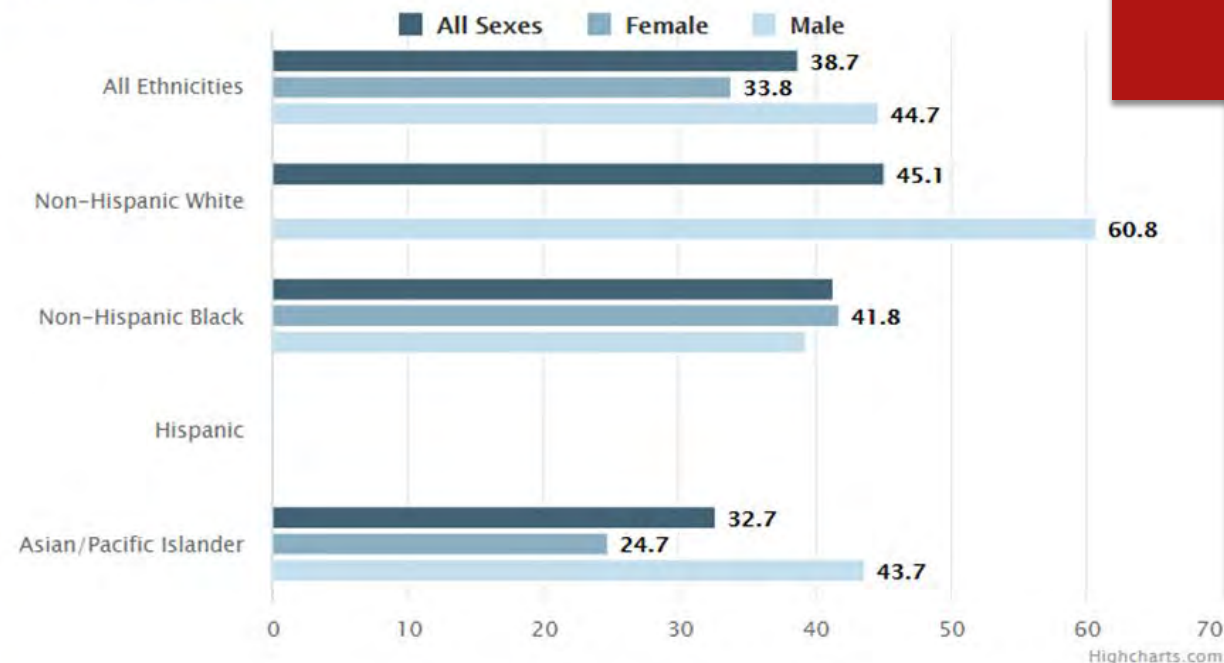
All Ethnicities

Cancer Statistics

	Selected Area	Statewide
Cases	139	73,262
Age Adjusted Incidence Rate i (95% LCI, 95% UCI) i	38.7 (32.4, 46.1)	35.1 (34.9, 35.4)

According to California Department of Public Health guidelines, cancer incidence rates cannot be reported if based on <15 cancer cases and/or a population of <10,000 to ensure confidentiality and stable statistical rates.

Age Adjusted Incidence Rate Colorectal Cancer



Alameda 4 (A1118)

Demographics	Selected Area	Statewide	Healthcare Access and Use	Selected Area	Statewide
Population	60,897	29,390,200	% Uninsured i	18.6 %	17.8 %
% Non-Hispanic White i	21.1 %	40.1 %	% Routine Checkups i	67.3 %	82.5 %
% Non-Hispanic Black i	35.4 %	5.8 %	% Delayed Care i	18.6 %	19.3 %
% Hispanic i	13.5 %	37.6 %	% Colorectal Cancer Screening i	64.0 %	62.9 %
% Asian/Pacific Islander i	25.2 %	13.4 %	% Mammograms i	79.7 %	78.9 %

Thank you!

CMORRIS@UCDAVIS.EDU