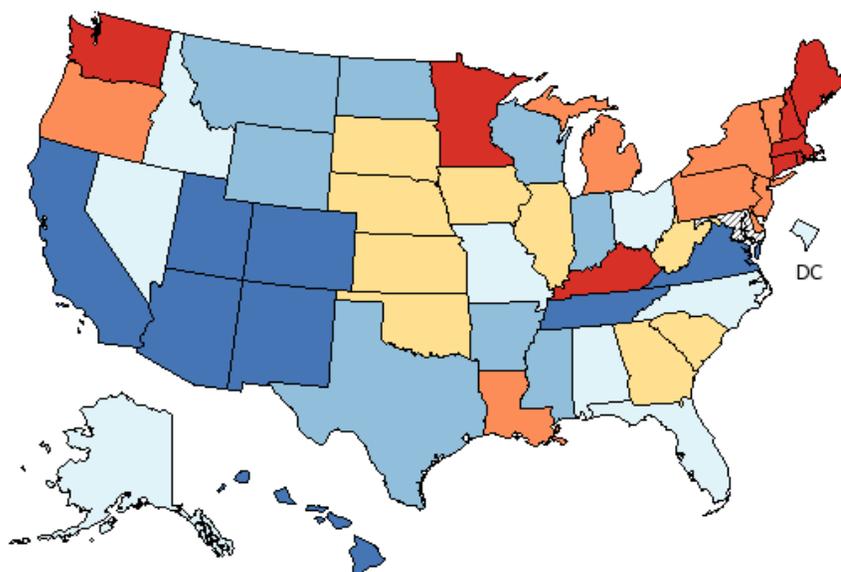


Latest † Incidence Rates † for United States
All Cancer Sites
All Races (includes Hispanic), Both Sexes, All Ages
2004 (SEER areas 2005)



Is Maryland a High Cancer Incidence State?

Diane M. Dwyer, MD
Medical Director

Center for Cancer Surveillance and Control
Maryland Dept. of Health and Mental Hygiene
February 26, 2009

Contact Information

Maryland Dept. of Health and Mental Hygiene

Center for Cancer Surveillance and Control

<http://www.fha.state.md.us/cancer/index.cfm>

Data and Reports

http://www.fha.state.md.us/cancer/surv_org.cfm

http://www.fha.state.md.us/cancer/surv_data-reports.cfm

Maryland Cancer Registry

Maryland Cancer Registry

201 West Preston Street

Room 404

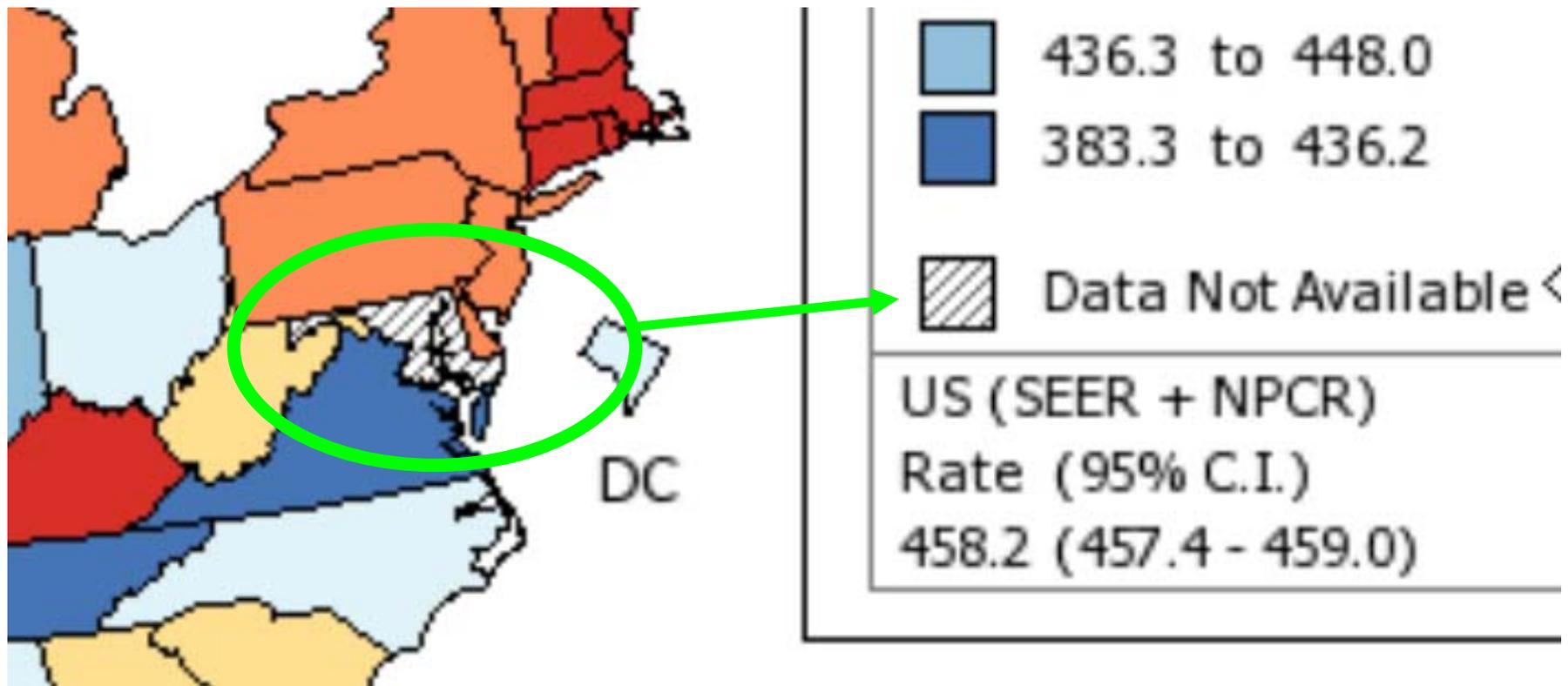
Baltimore, MD 21201

410-767-4055

ddwyer@dhmh.state.md.us

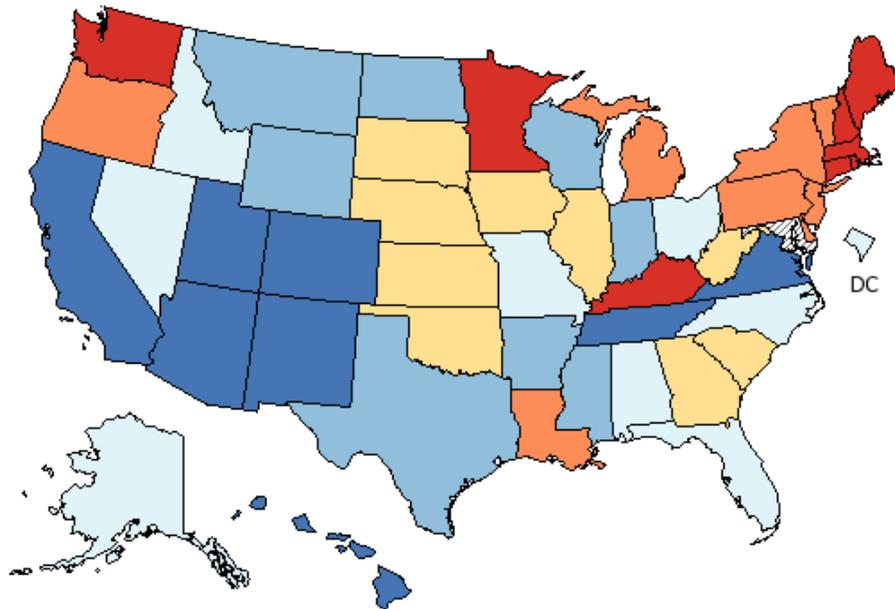
kstern@dhmh.state.md.us

http://www.fha.state.md.us/cancer/mcr_home.cfm



Source: statecancerprofiles.cancer.gov

Latest [‡] Incidence Rates [†] for United States
All Cancer Sites
All Races (includes Hispanic), Both Sexes, All Ages
2004 (SEER areas 2005)



Is Maryland a High Cancer Incidence State?

NEW Results from the
Maryland Cancer Registry

Cancer Data Sources

Cancer incidence data:

Maryland Cancer Registry

Center for Cancer Surveillance and Control

Department of Health and Mental Hygiene

201 W. Preston Street, Room 400, Baltimore, MD 21201

www.fha.state.md.us/cancer/registry/, 410-767-4055

Cancer mortality data:

Maryland Vital Statistics Administration

Through the CDC WONDER

Support for the Maryland Cancer Registry

- Maryland State General Funds
- Maryland Cigarette Restitution Fund (CRF) Program
- National Program for Cancer Registries (NPCR),
Centers for Disease Control and Prevention, Atlanta, GA

Acknowledgements

Maryland Dept. of Health and Mental Hygiene

Center for Cancer Surveillance and Control

- Donna Gugel

Maryland Cancer Registry

- Kimberly Stern
- Jennifer Hayes
- Afaq Ahmad
- Delores Rich
- Carolyn Davis-Harris

CRF Surveillance and Evaluation Unit

- Carolyn Poppell

Vital Statistics Administration

- Isabelle Horon
- Bob Hayman

Acknowledgements

Westat

- Marsha Dunn
- Amy Solis
- Serban Negoita
- Steve Peace

Certified Tumor Registrars

- Mary Mesnard
- Donna Calicutt
- Sarah Sherman-VanDeventer
- Deb Haegele
- Alex Barriera
- Pat Weeks-Coulthurst
- Polly Kee
- Sheryl Roberts
- Terry Lewis
- Theresa San Lorenzo-Caswell

Info. Technology

- Michael Raithel
- Pat Spray
- Krishna Hari
- Raghav Adimulam
- Lei Fan
- Erika Wilson

- Vanessa Ralda

Acknowledgements

Reporting Facilities

- Hospitals
- Laboratories
- Radiation Facilities
- Physicians
- Other states

Cancer Registry Advisory Committee

- Kathryn Farrell, Chairperson

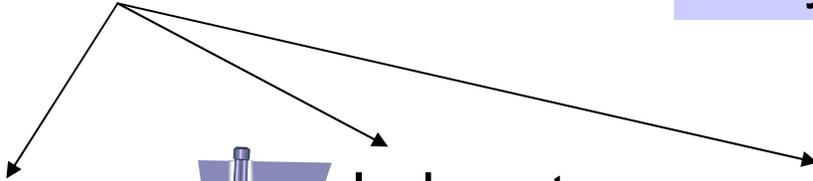
How do we count health events?

Surveillance for “cancer”

- For cancers diagnosed
 - Count cases of cancer (tumor-level)
 - (Count people with one or more cancers)
- For cancer deaths
 - Count people who died FROM cancer (underlying cause of death)

Maryland and US States

Person with cancer

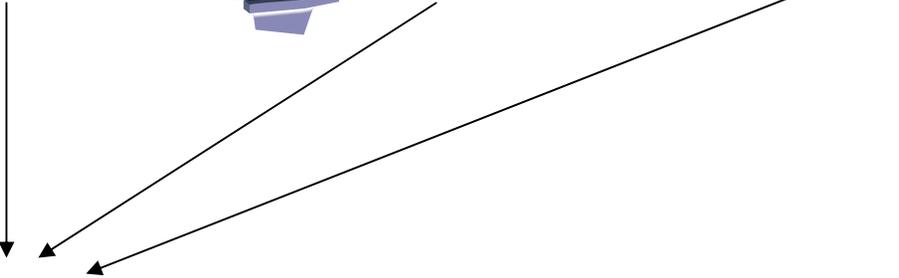


Hospital #1



Laboratory #2

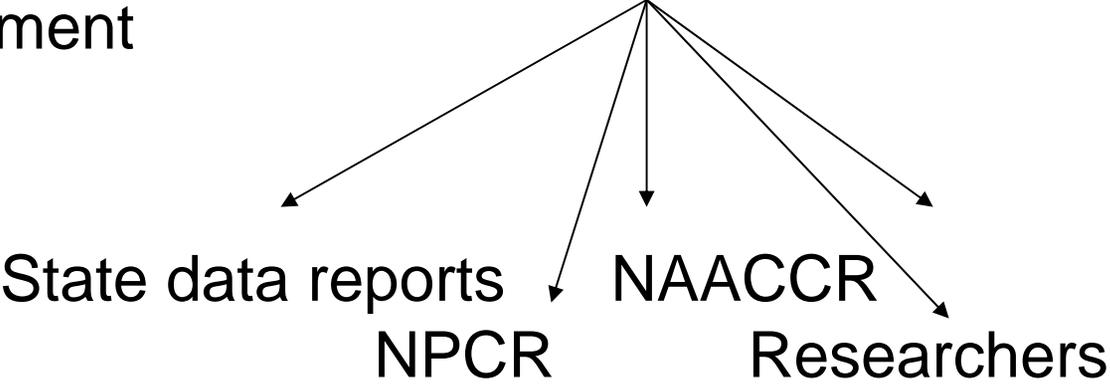
Doctor #3



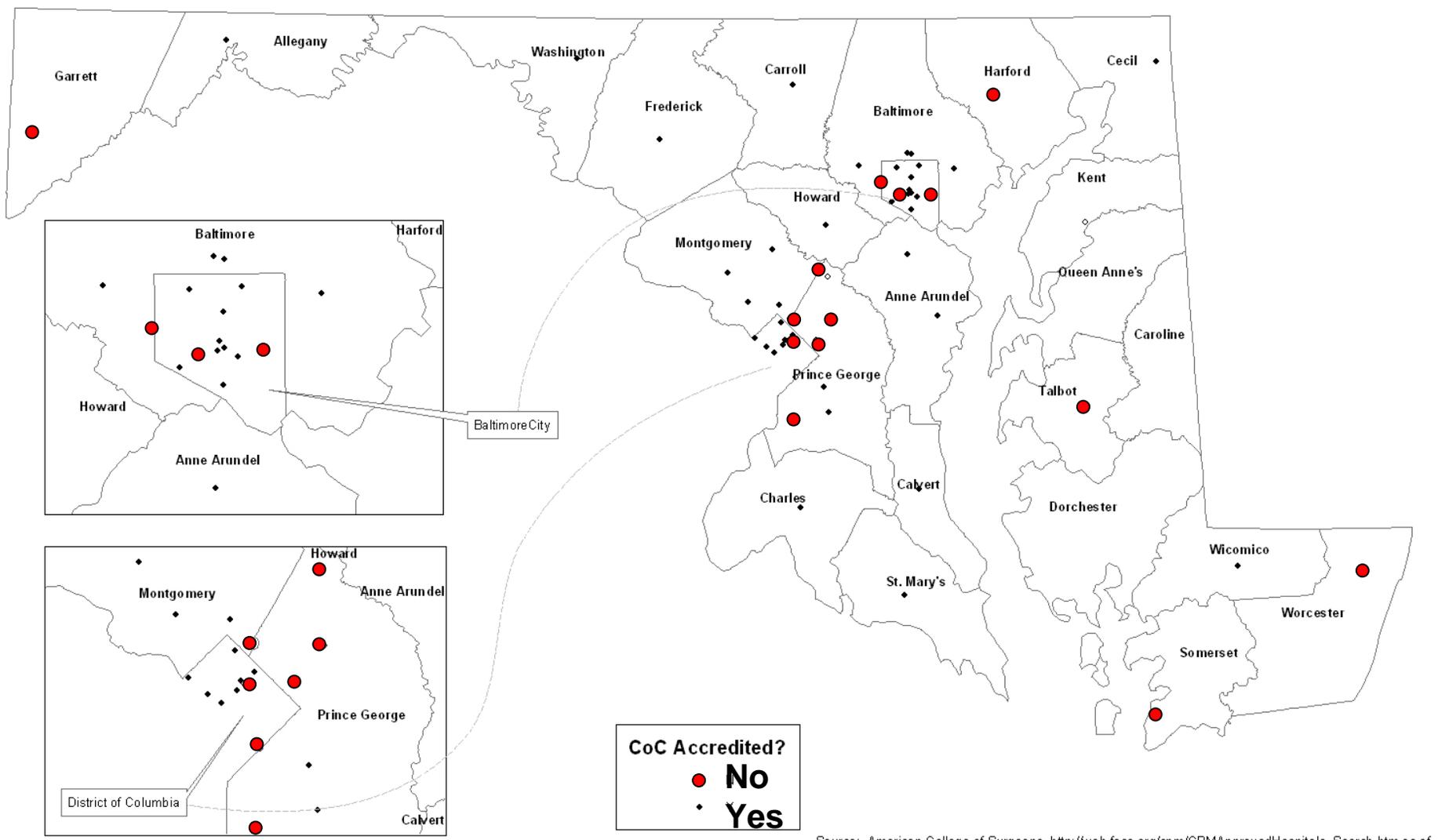
Maryland Cancer Registry Contractor for QA-Data Management
Westat--2008



Maryland Cancer Registry
DHMH

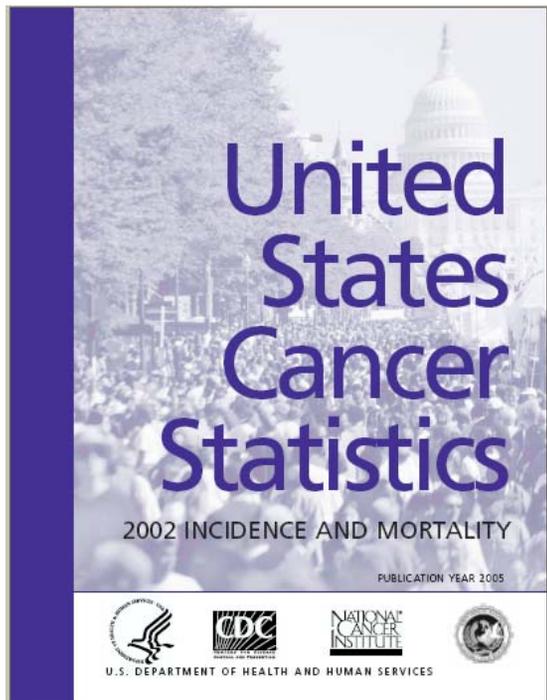


American College of Surgeons, Commission on Cancer Accreditation of Hospitals in Maryland and DC



Source: American College of Surgeons, http://web.facs.org/cpm/CPMAApprovedHospitals_Search.htm as of February 2007 and Maryland Dept. of Health and Mental Hygiene, CCSC, EPHT and IRMA GIS Unit.

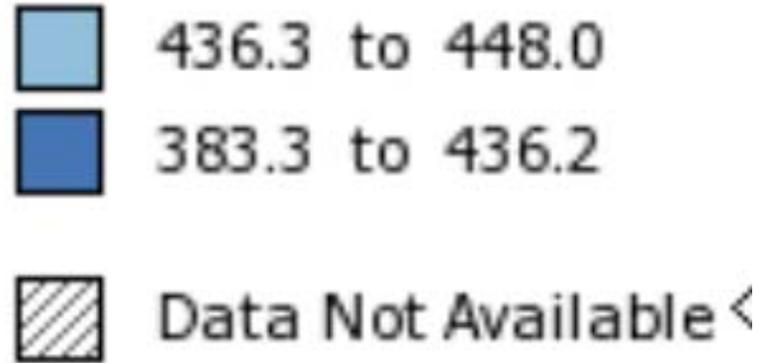
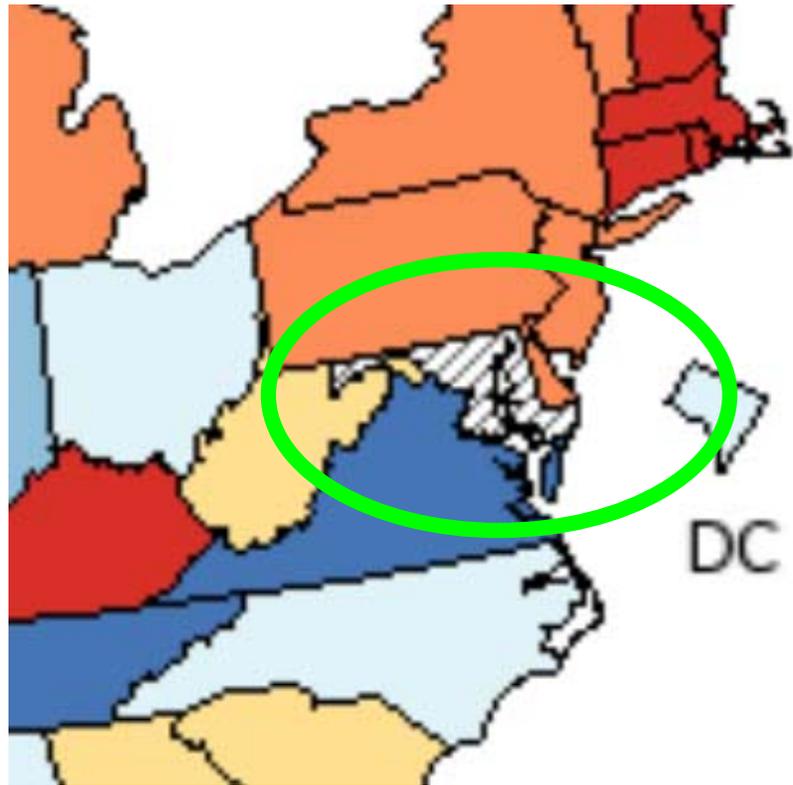
Registry Certification



- NPCR includes data that are from “high quality” registries in US Cancer Statistics
- <http://apps.nccd.cdc.gov/uscs>

NAACCR Registry Certification

	Silver 	Gold 
Completeness	90-94% of “expected” number	$\geq 95\%$ of “expected” number
Passing edits	97%	100%
Death certificate only cases	$\leq 5\%$	$\leq 3\%$
Timeliness	Within 23 months	Within 23 months
Duplicates	$\leq 2/1000$	$\leq 1/1000$
Missing values: Sex, Age, County	$\leq 3\%$	$\leq 2\%$
Missing Race	$\leq 5\%$	$\leq 3\%$



US (SEER + NPCR)
Rate (95% C.I.)
458.2 (457.4 - 459.0)

“Cancer” in Maryland... compared to what?

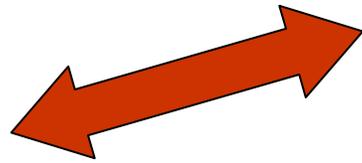
- The world
- Other similar countries
- The United States
- Other states; other *similar* states
- Maryland
- Jurisdictions *within* Maryland
- What Maryland could be

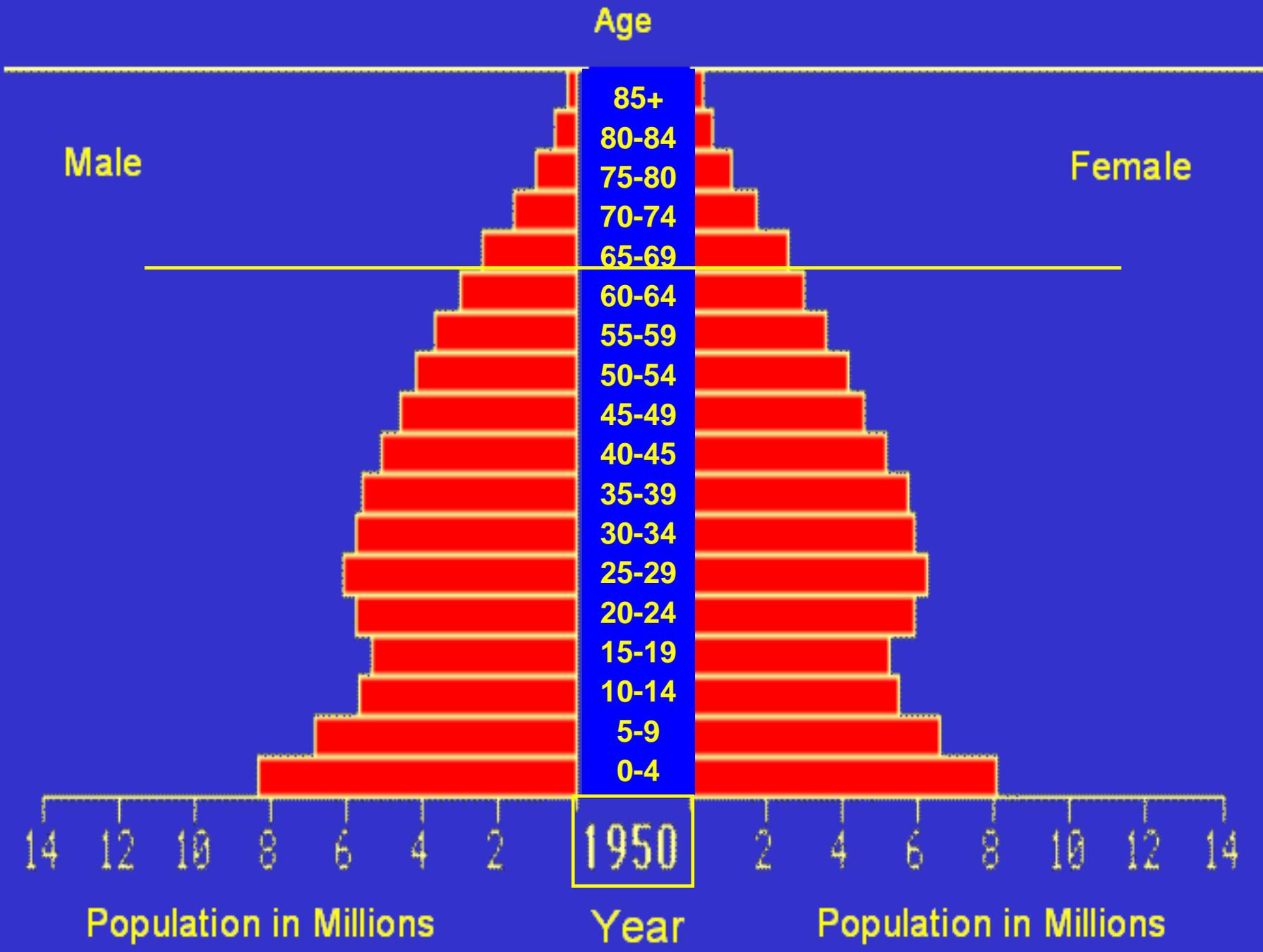


Specific cancer in Maryland, compared to...

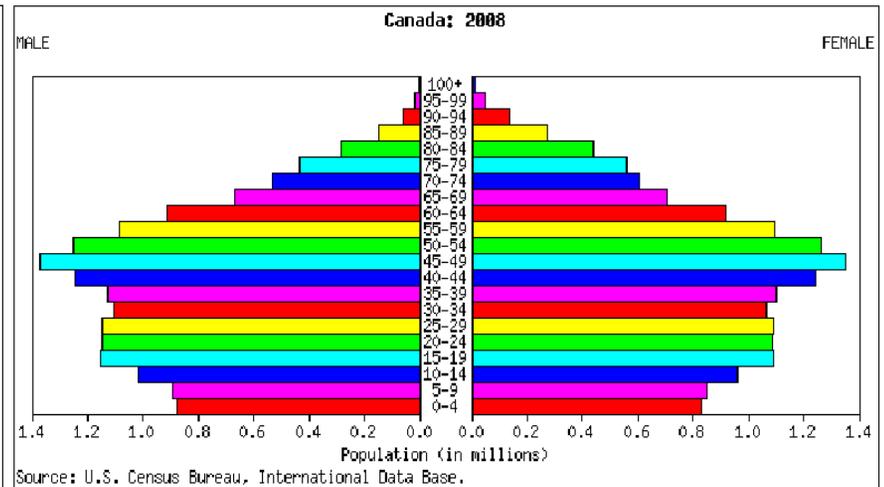
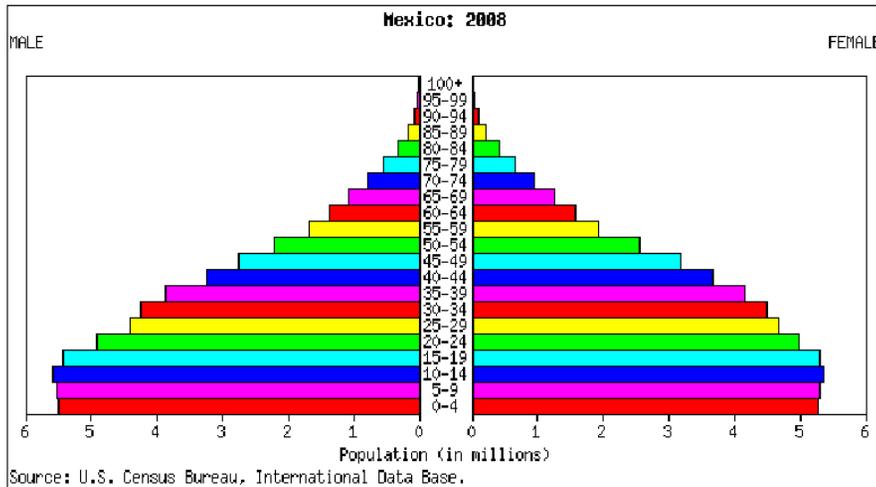
- The world
- Other similar countries
- The United States
- Other similar states
- Maryland
- Other cancers in Maryland
- What Maryland could be







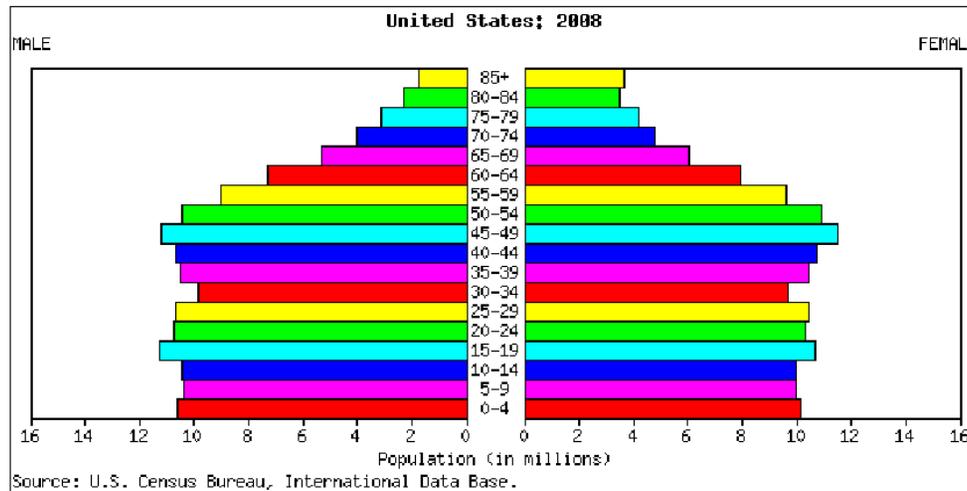
2008 Population Pyramids



Mexico

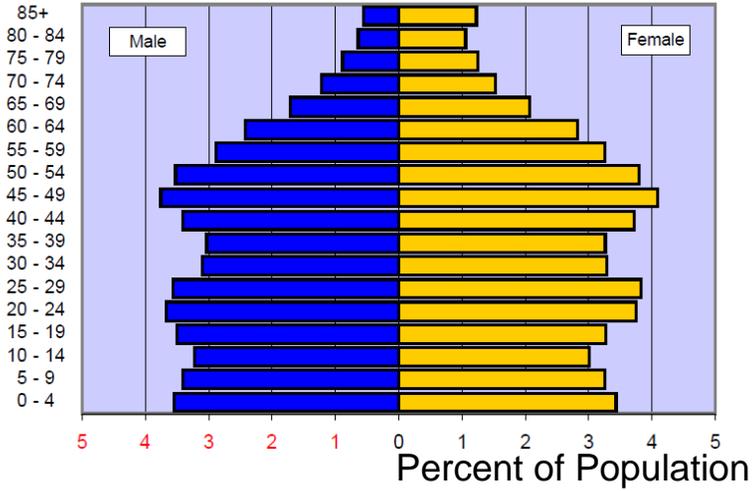
US

Canada



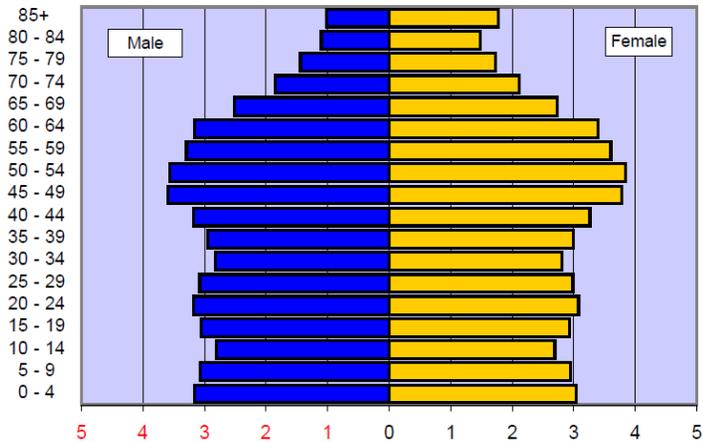
2010 Population Pyramids

Maryland



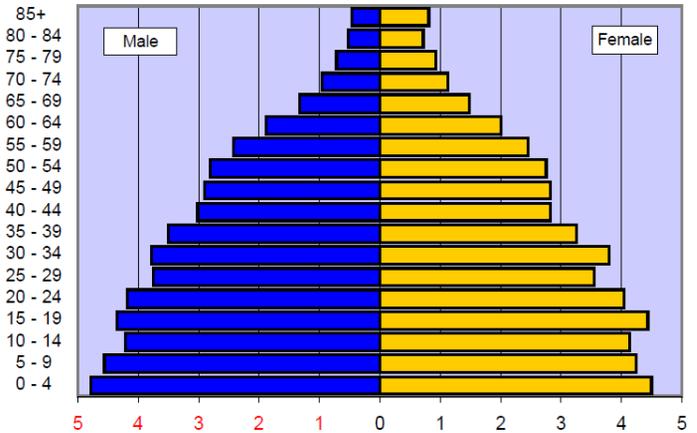
Florida

2010



Utah

2010

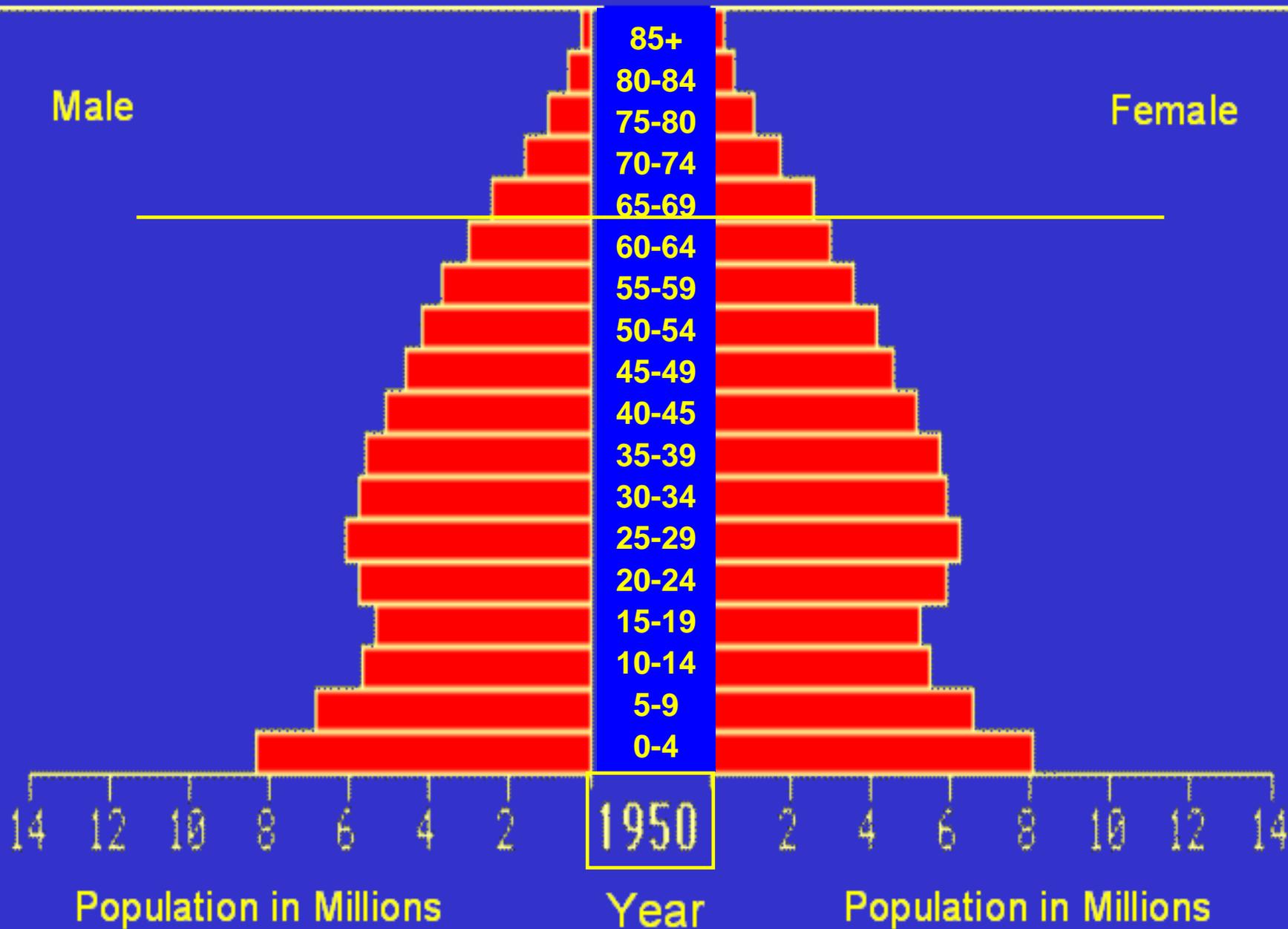


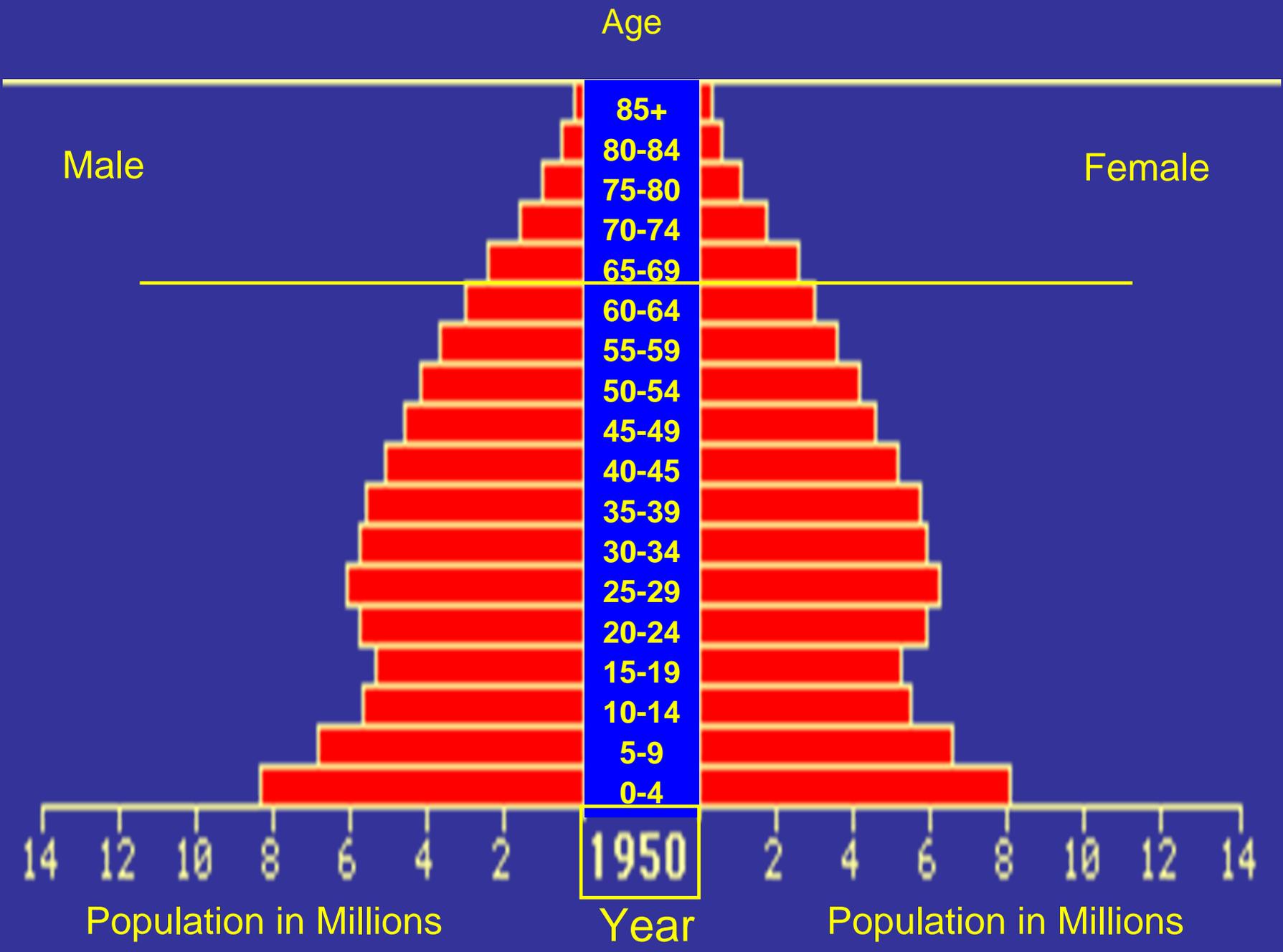
United States

Age

Male

Female





US Census bureau data; <http://www.ac.wvu.edu/~stephan/Animation/pyramid.html>

The rate of cancer
(mortality or incidence)

crude? age-adjusted, standardized?

Trends over time

Comparisons among states, jurisdictions, populations

The rate of cancer (mortality or incidence)

crude? age-adjusted, standardized?

Trends over time

Comparisons among states, jurisdictions, populations

The number of cases of cancer

Health care access

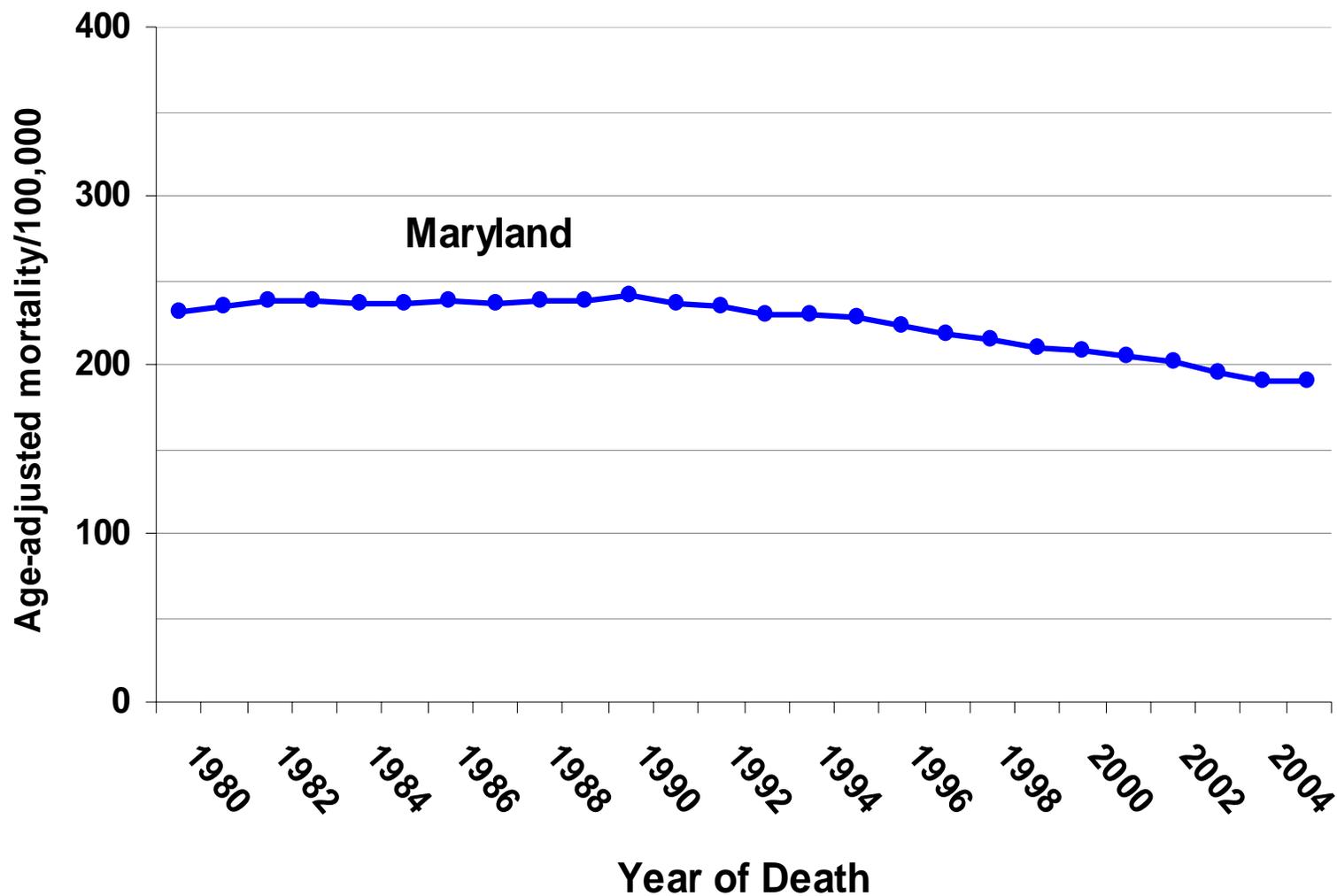
Health care costs

Planning

End of life care, etc.

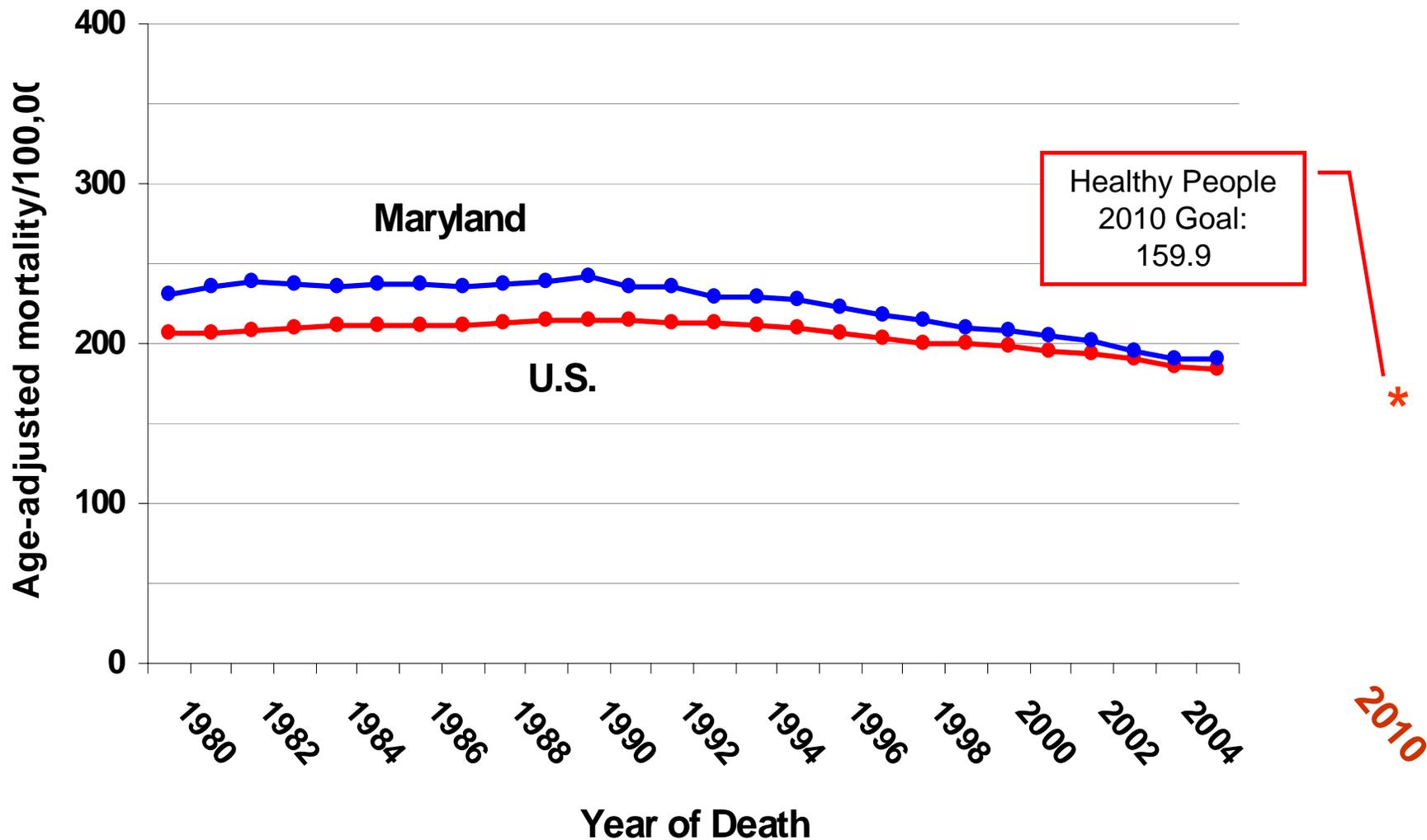
Cancer Mortality Rates

Cancer Mortality Rate, Maryland, 1980-2005

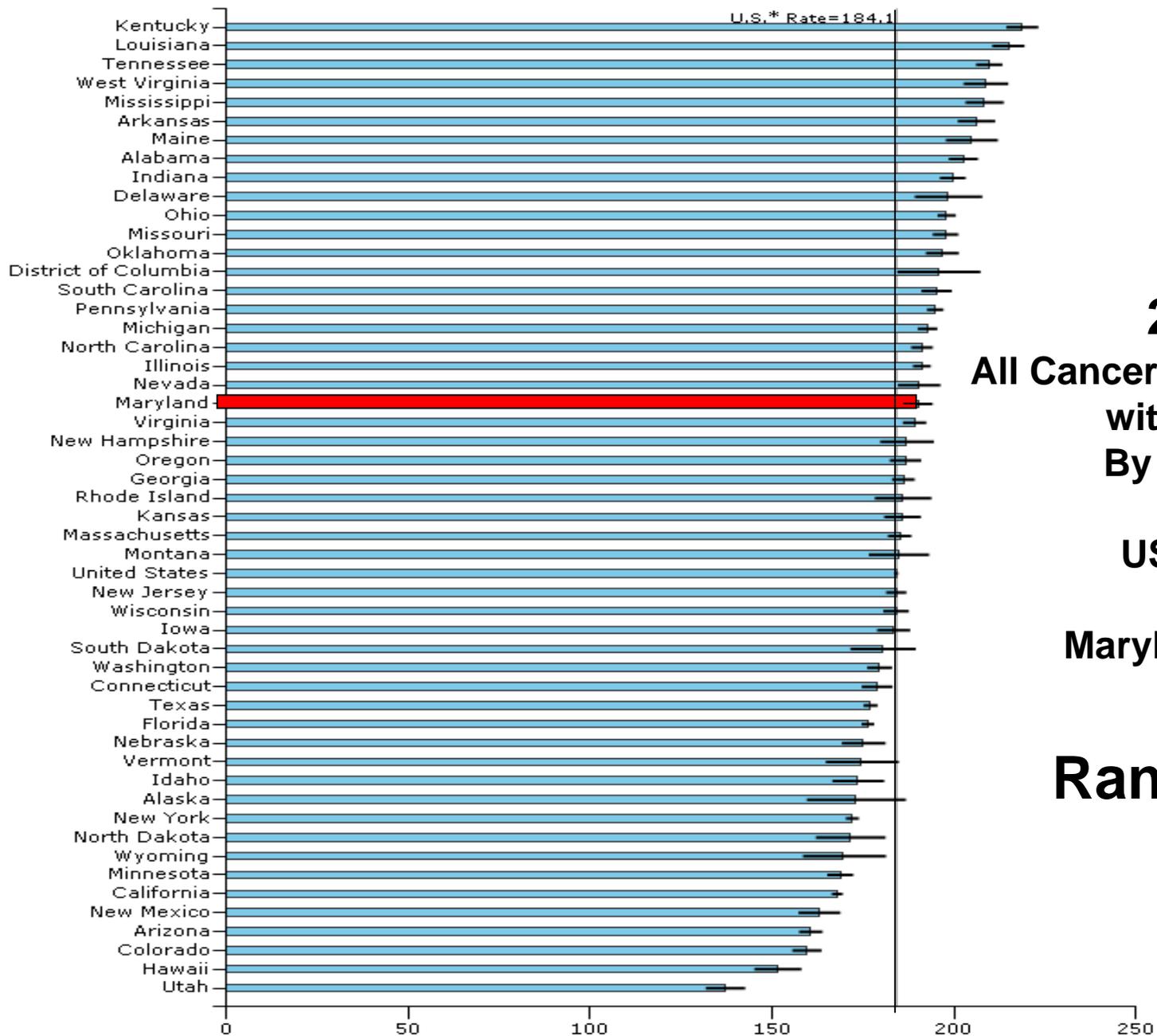


*Age Adjusted to the US Standard Population, 2000

Cancer Mortality Rate, Maryland and U.S., 1980-2005



*Age Adjusted to the US Standard Population, 2000



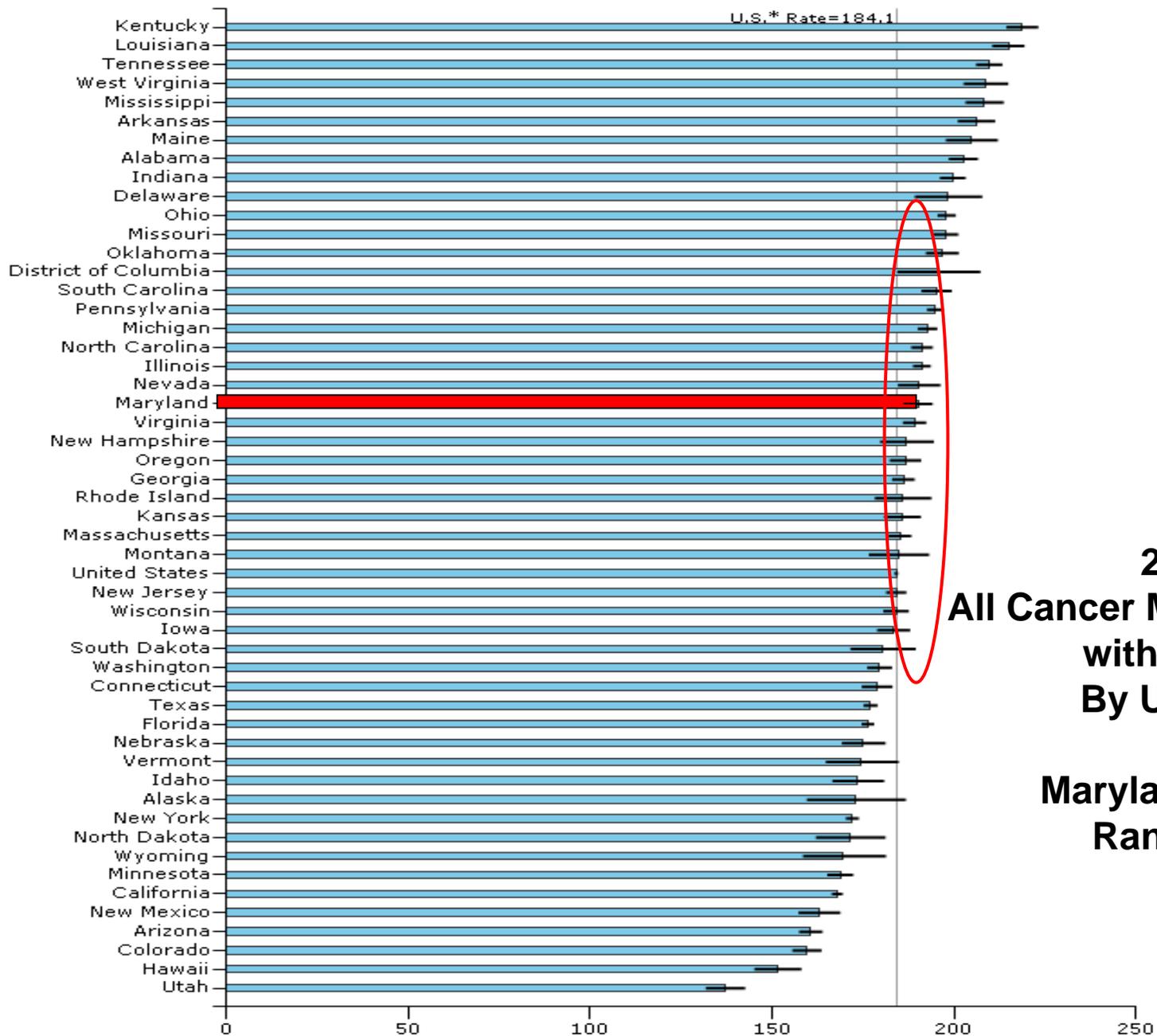
2005
All Cancer Mortality Rates
with 95% CI
By US State

US: 184.2

Maryland: 190.2

Rank: 21st

Rate per 100,000



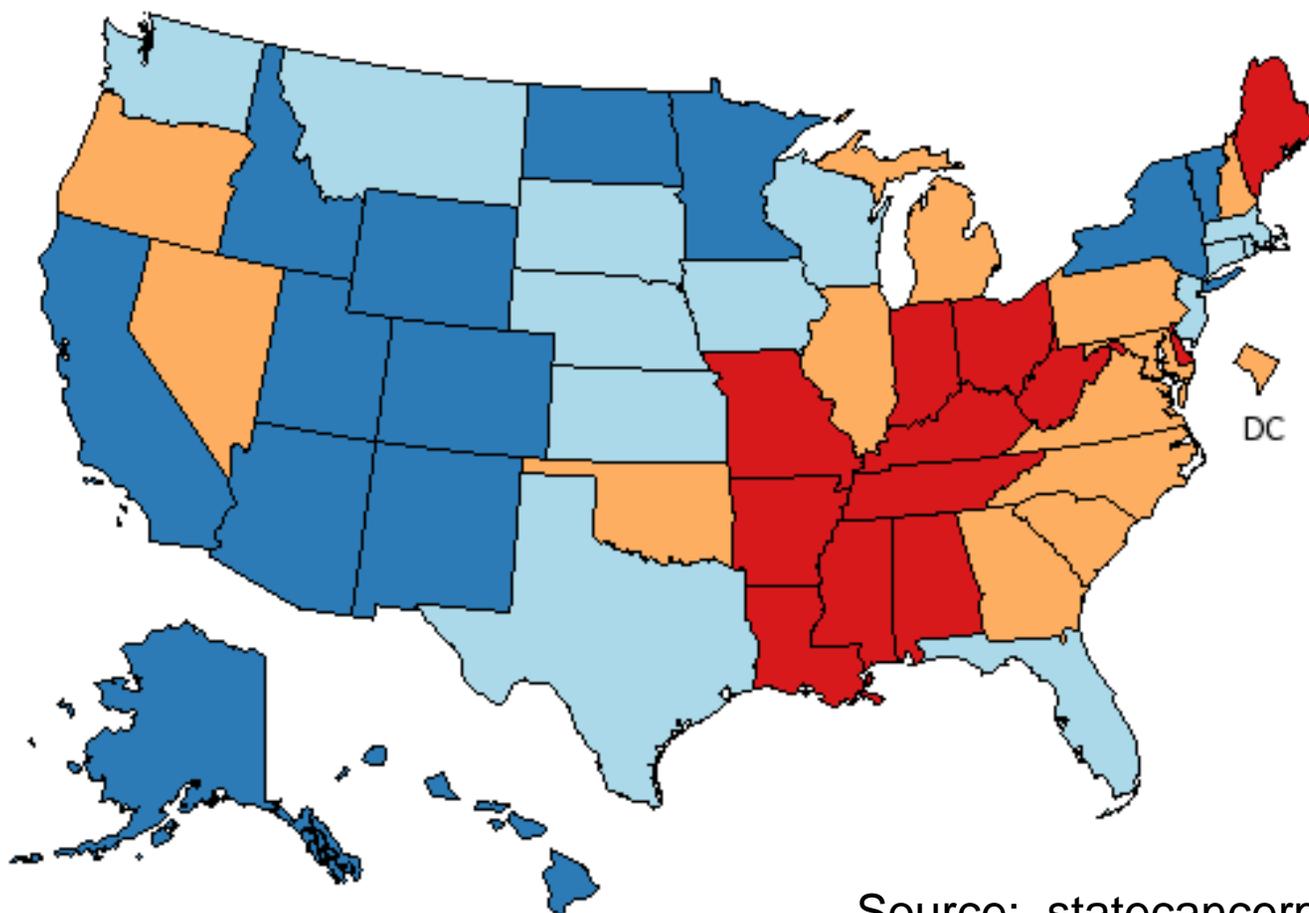
**2005
All Cancer Mortality Rates
with 95% CI
By US State**

**Maryland: 190.2
Rank: 21st**

Age-Adjusted Death Rates for United States, 2005

All Cancer Sites

All Races (includes Hispanic), Both Sexes, All Ages



Age-Adjusted
Annual Death Rate
(Deaths per 100,000)

Quantile Interval

- 196.7 to 218.7
- 185.9 to 196.6
- 174.6 to 185.8
- 137.0 to 174.5

United States
Rate (95% C.I.)
184.0 (183.5 - 184.5)

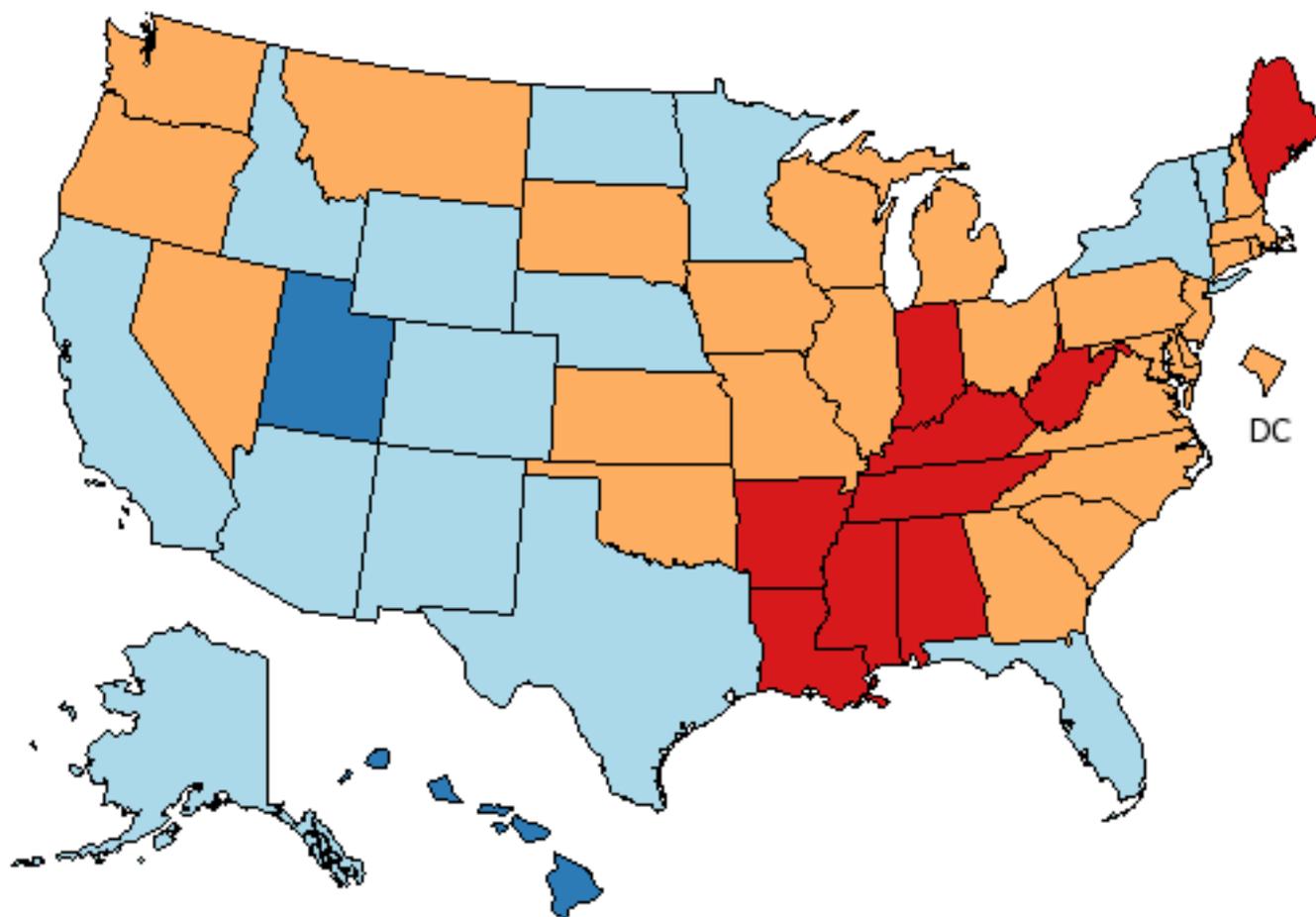
Healthy People 2010
Goal 03-01
159.9

Source: statecancerprofiles.cancer.gov

Age-Adjusted Death Rates for United States, 2005

All Cancer Sites

All Races (includes Hispanic), Both Sexes, All Ages



Age-Adjusted Annual Death Rate (Deaths per 100,000)

Equal Interval

- 198.4 to 218.7
- 177.9 to 198.3
- 157.4 to 177.8
- 137.0 to 157.3

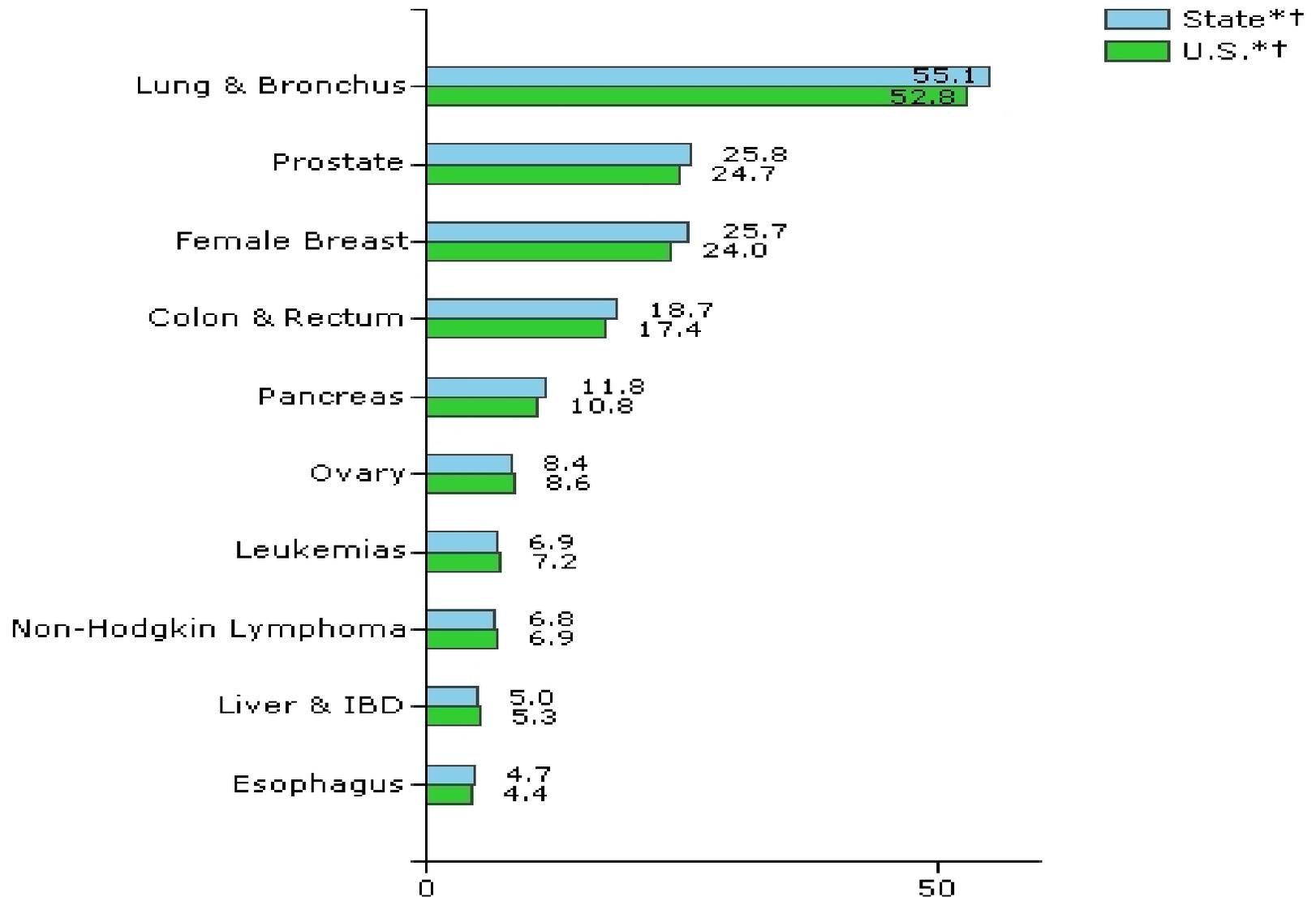
United States Rate (95% C.I.)
184.0 (183.5 - 184.5)

Healthy People 2010 Goal 03-01
159.9

Source: statecancerprofiles.cancer.gov

Death Rates — Maryland vs. United States, 2005, Male and Female

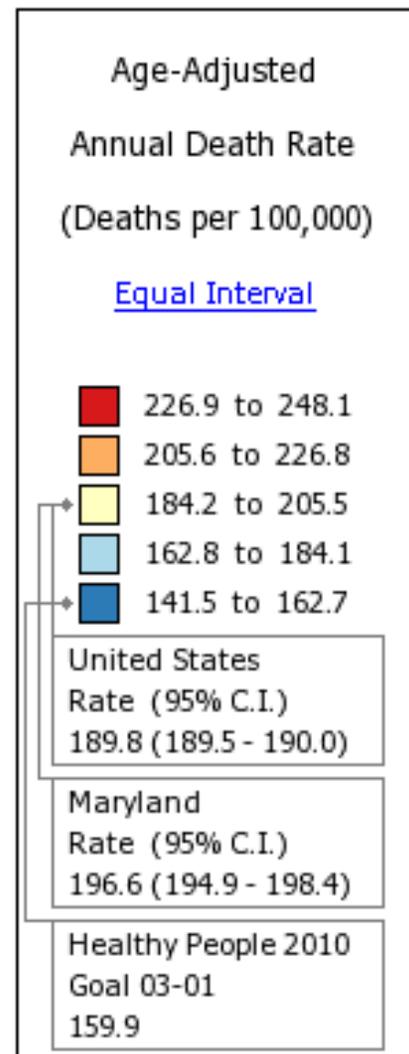
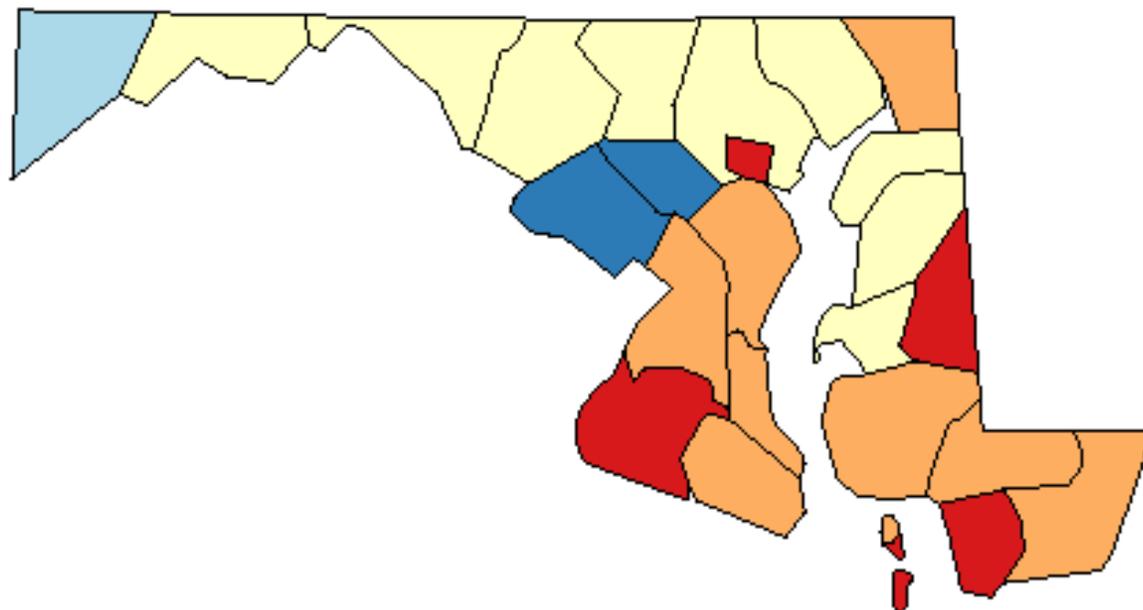
Top 10 Cancers



Age-Adjusted Death Rates for Maryland, 2001 - 2005

All Cancer Sites

All Races (includes Hispanic), Both Sexes, All Ages

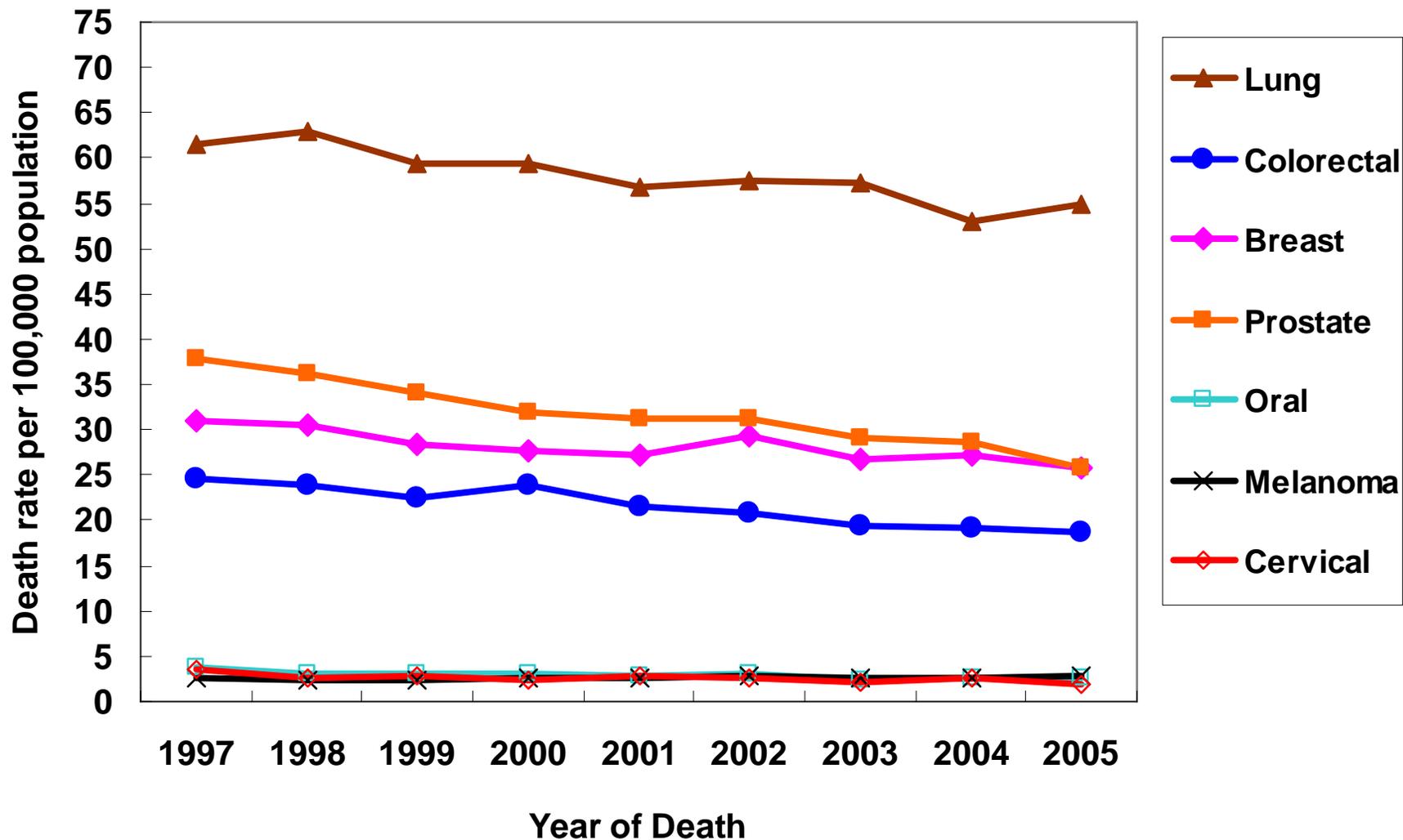


Highest: Baltimore City, Caroline, Charles, Somerset counties

Source: statecancerprofiles.cancer.gov

Targeted Cancers

Mortality Rates for Men and Women*, Maryland, 1997-2005

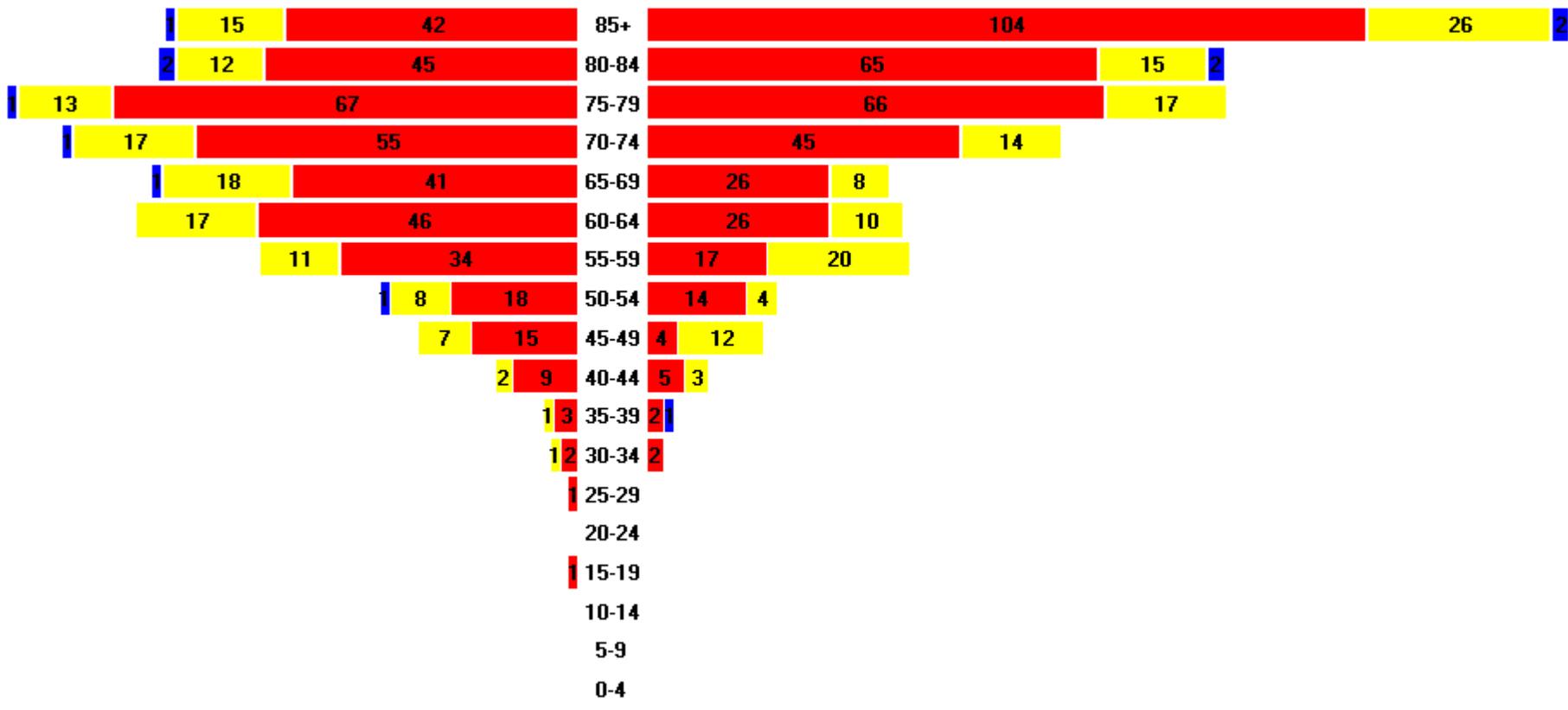


*Mortality rates/100,000 population, age-adjusted to the US standard population 2000

Number of Colorectal Cancer Deaths by Gender, Age, and Race/Ethnicity, Maryland 2002

Legend
 Unspecified
 White
 Black
 Other

Event Count Pyramid
 1,018 Events



Male

Female

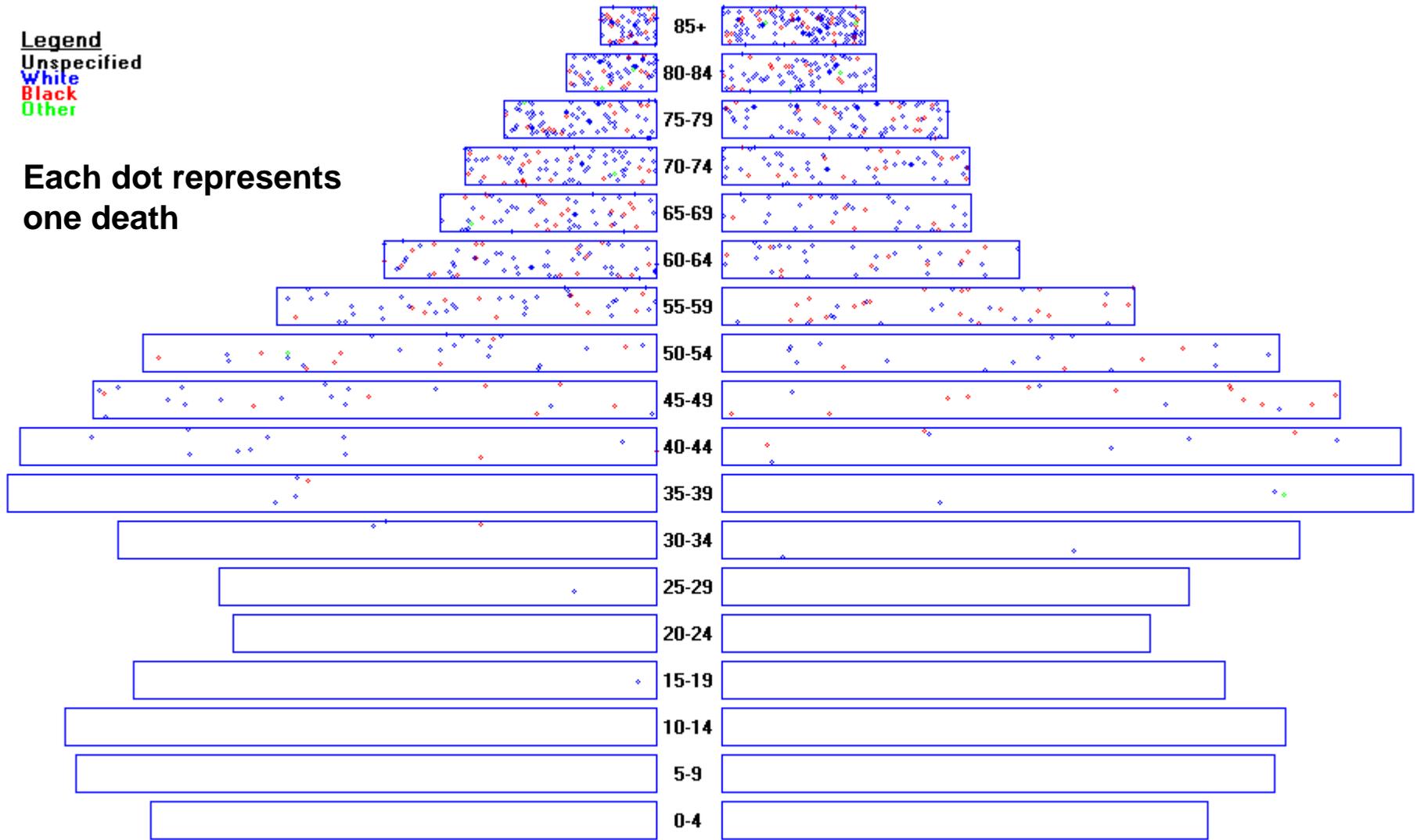
>> colon and rectum
 >> ALL SEXES
 >> ALL RACES
 >> ALL AGES

PPT Tools—Ed Bunker ebunker@jhmi.edu using Vital Statistics Data

Colorectal Cancer Deaths by Gender, Age, and Race/Ethnicity--Maryland 2002--Events by Size of Population

Legend
 Unspecified
 White
 Black
 Other

Each dot represents one death



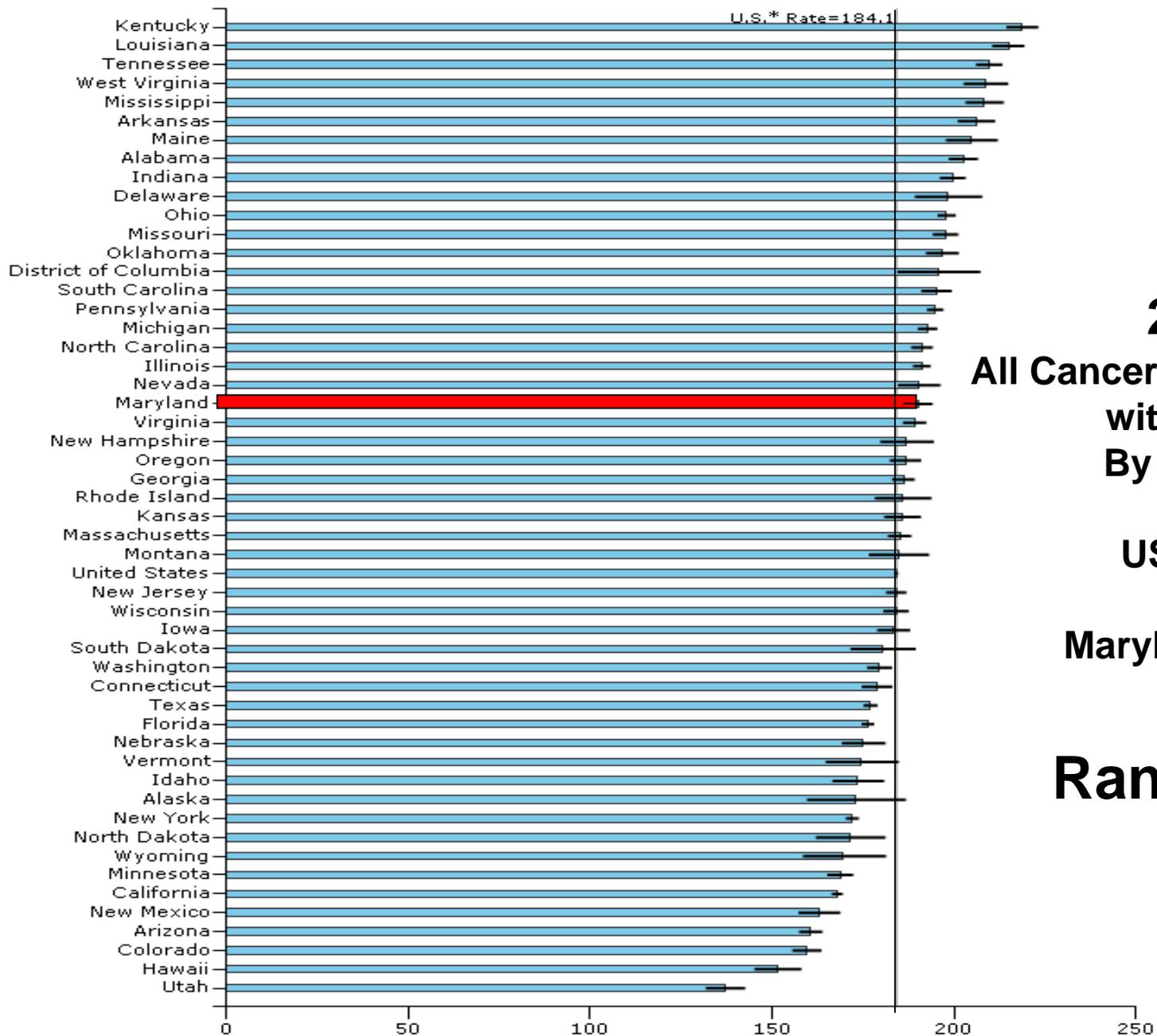
Male

Female

>> colon and rectum
 >> ALL SEXES
 >> ALL RACES
 >> ALL AGES

PPT Tools--Ed Bunker, ebunker@jhmi.edu, using Vital Statistics Data

Maryland's **Mortality**
Ranking among States



2005
All Cancer Mortality Rates
with 95% CI
By US State

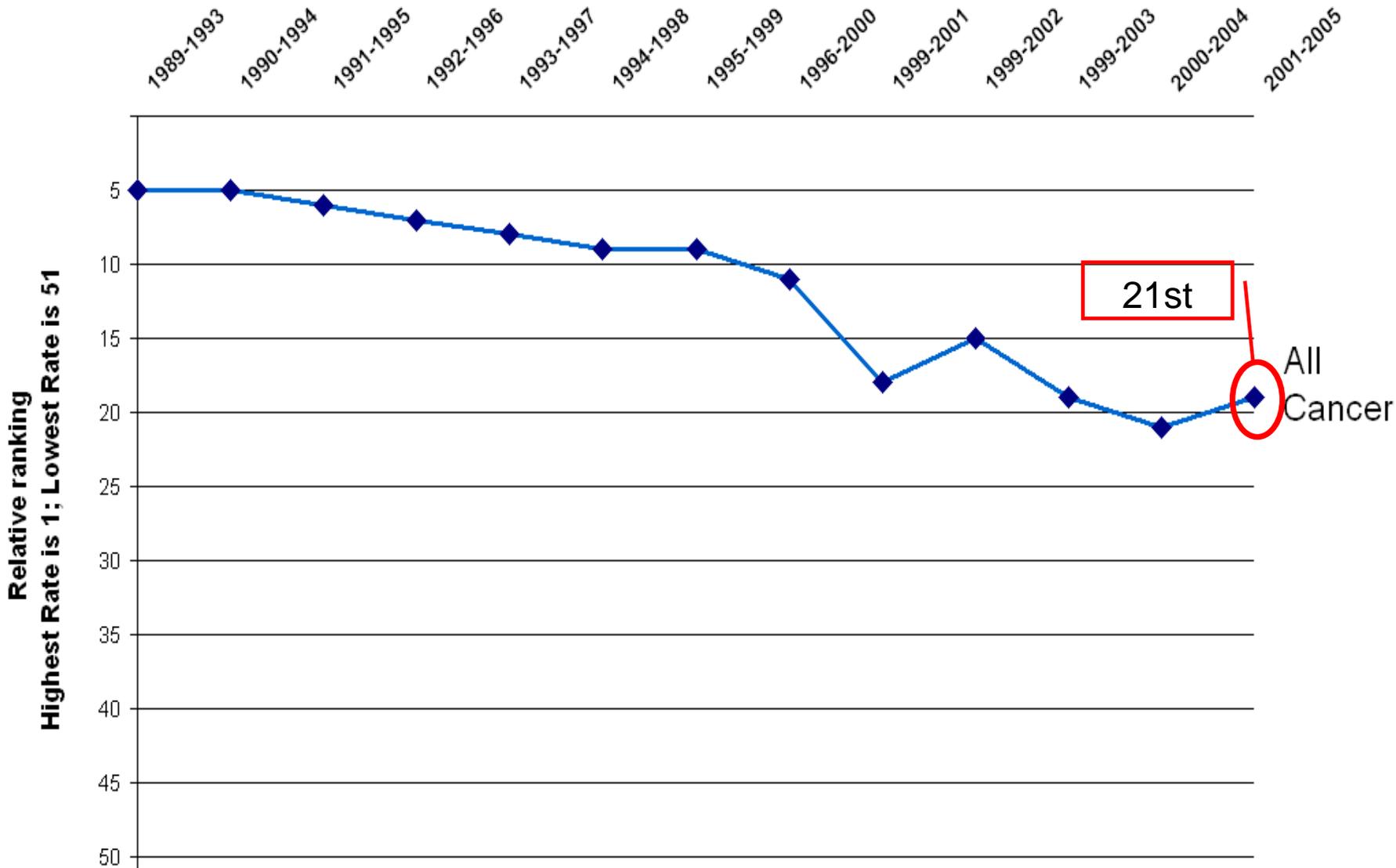
US: 184.2

Maryland: 190.2

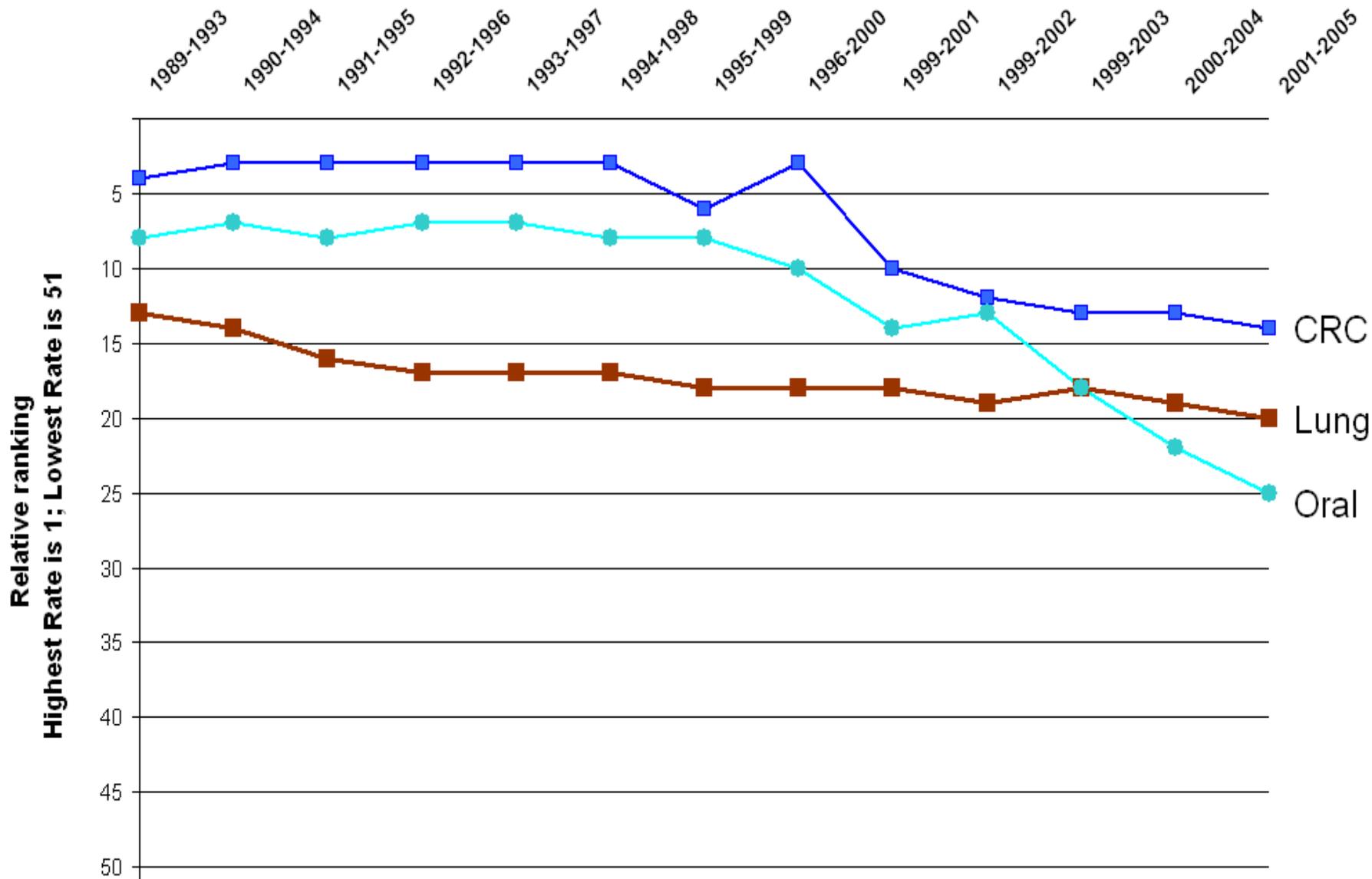
Rank: 21st

Rate per 100,000

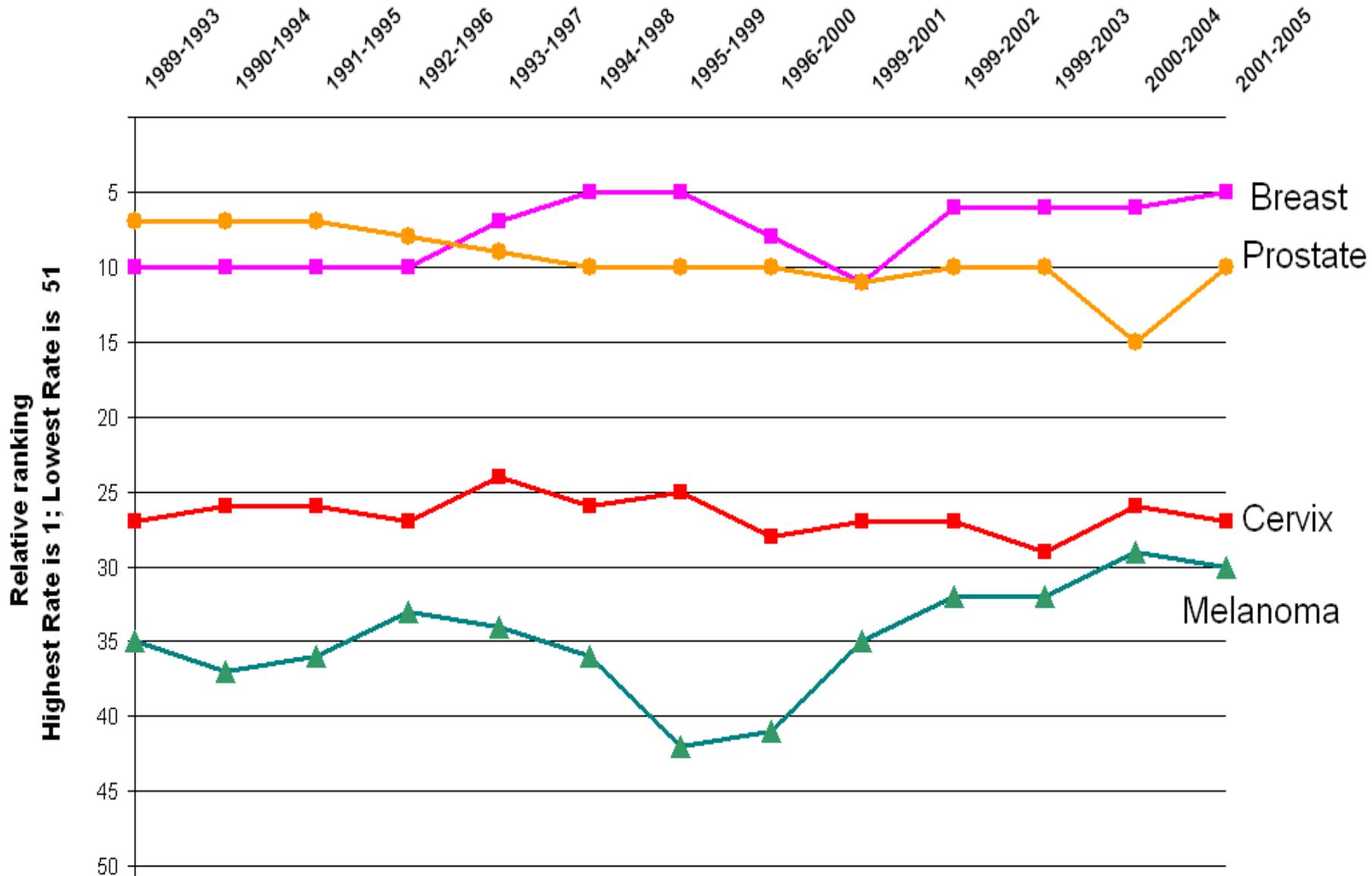
Maryland Mortality Ranking in US by Rolling Five Year Rates for All Cancers



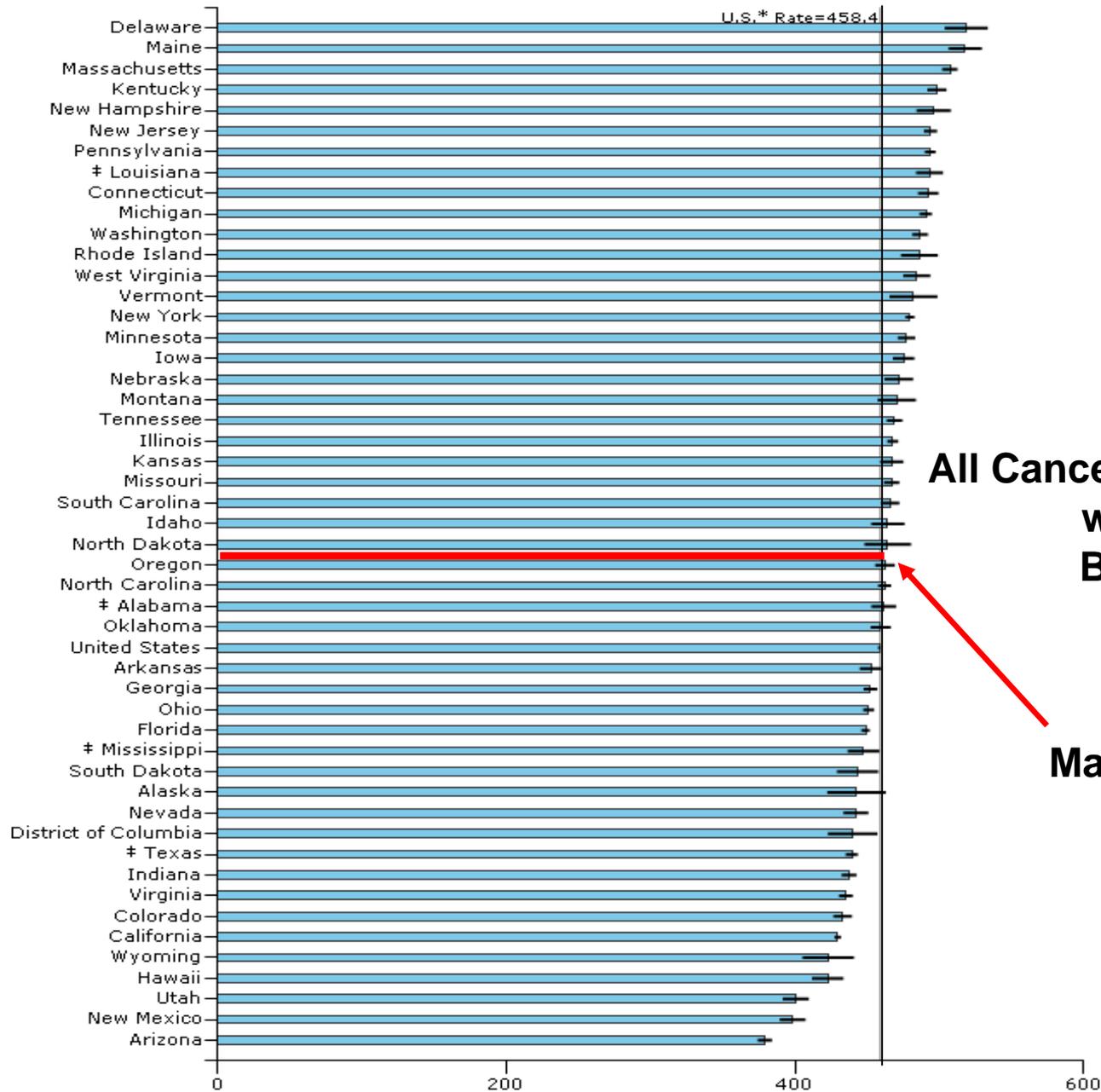
Maryland Mortality Ranking in US Rolling Five Year Rates by Cancer Site



Maryland Mortality Ranking in US Rolling Five Year Rates by Cancer Site



Cancer Incidence (New cases)



**2005
All Cancer Incidence Rates
with 95% CI
By US State**

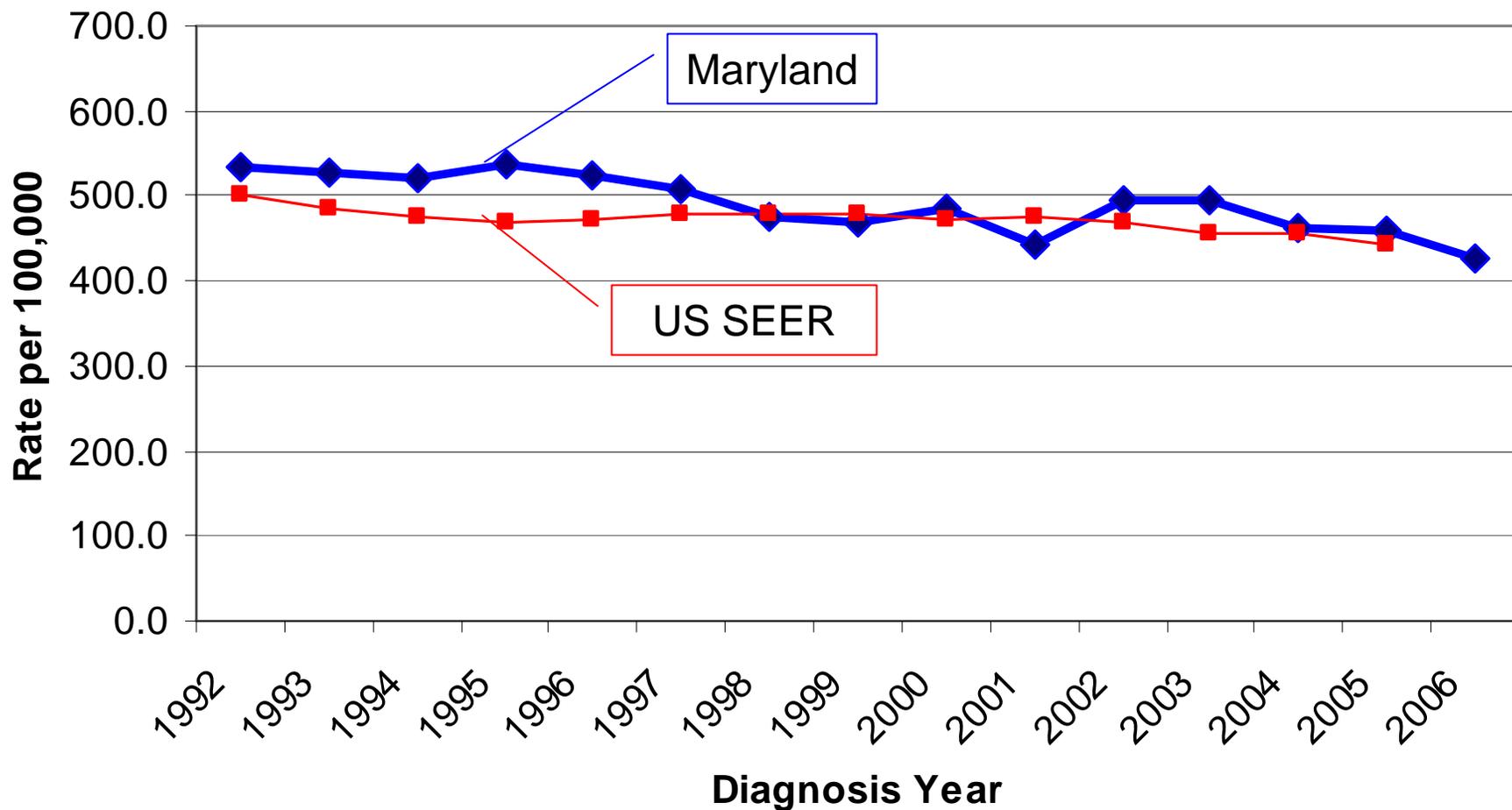
US 458.4

Maryland 459.2

Rate per 100,000

All Cancer* Incidence

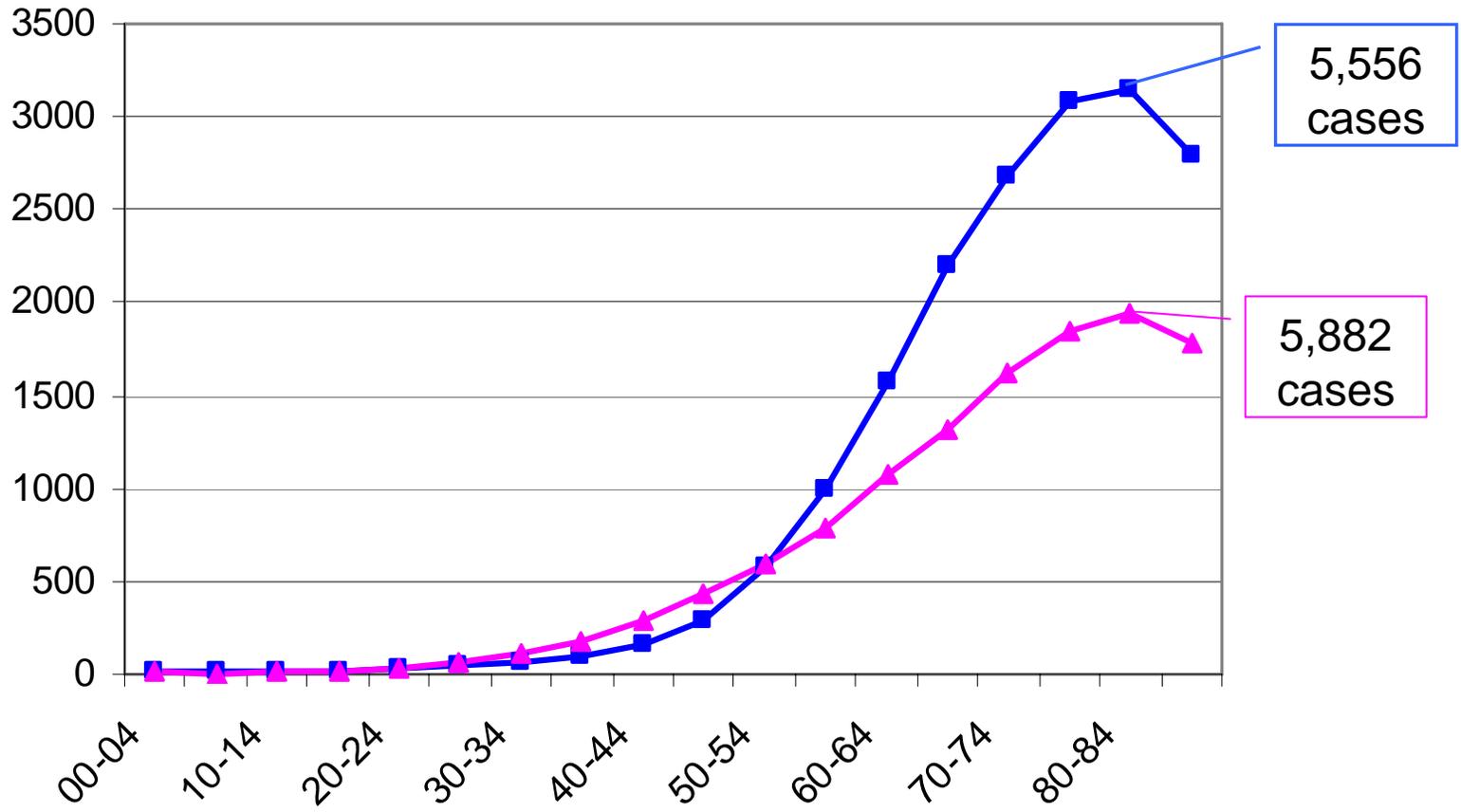
Maryland 1992-2006 and US SEER 13 Rate 1992-2005



Source: Maryland Cancer Registry, 1/29/08 and SEER.cancer.gov

*Invasive cancer and in situ bladder, excluding basal and squamous skin cancer

All Cancer Sites of Invasive Cancer Age Specific Incidence Rates by Gender, Maryland, 2002-2006



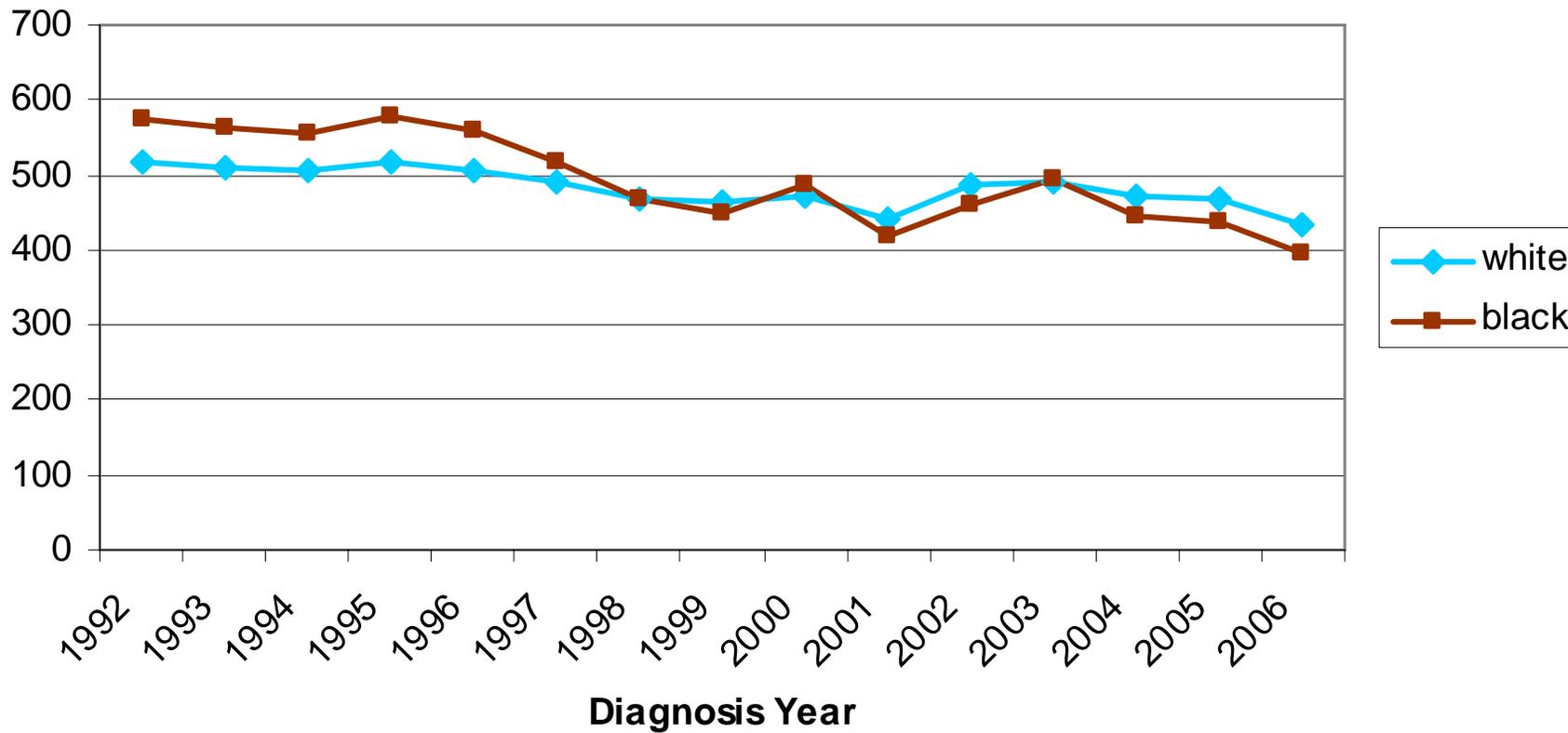
Age Group (Years)

Source: Maryland Cancer Registry Consolidated Data as of 01282009

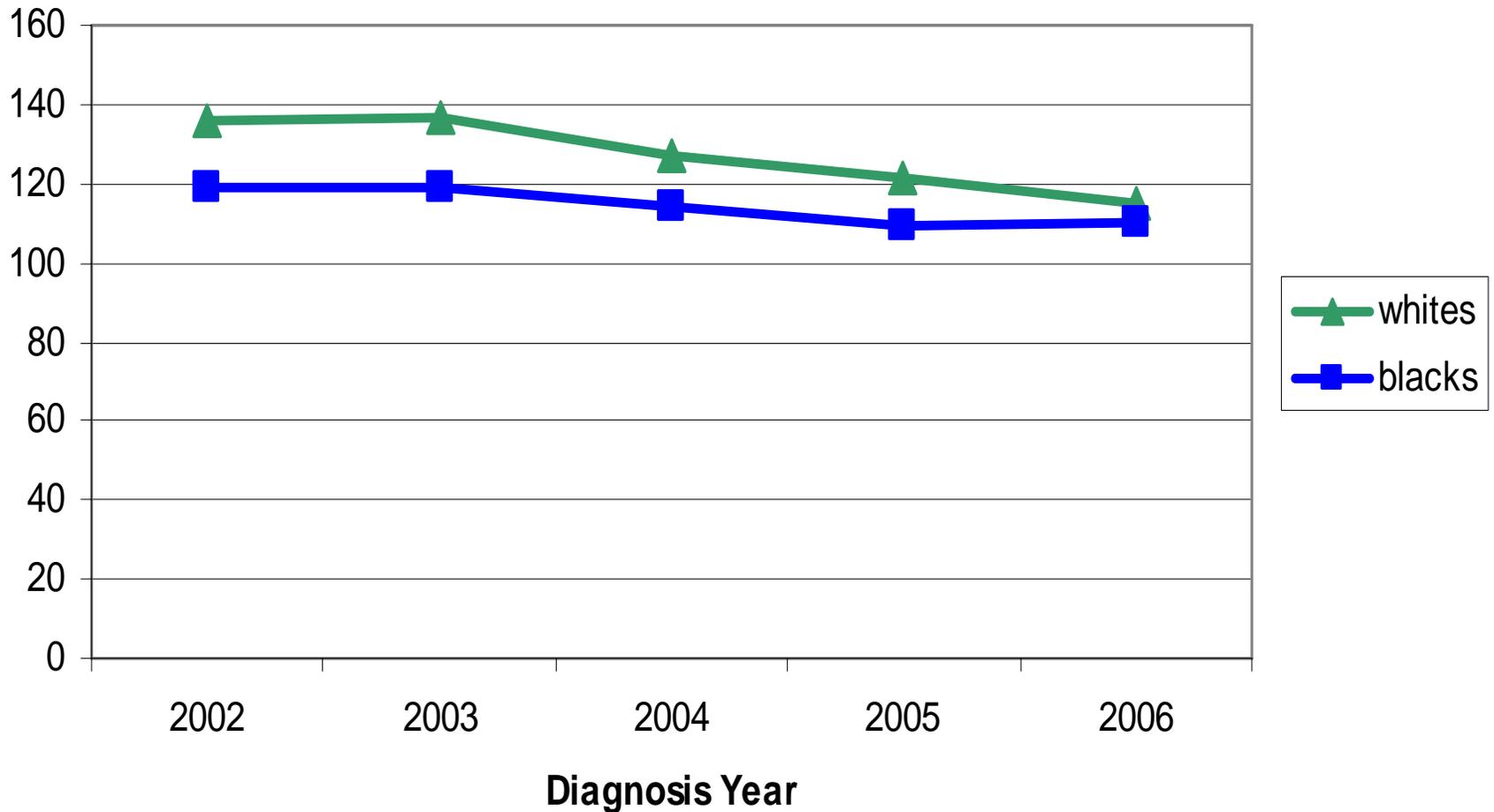
■ Males ▲ Females

All Cancer Sites Incidence Rates by Race

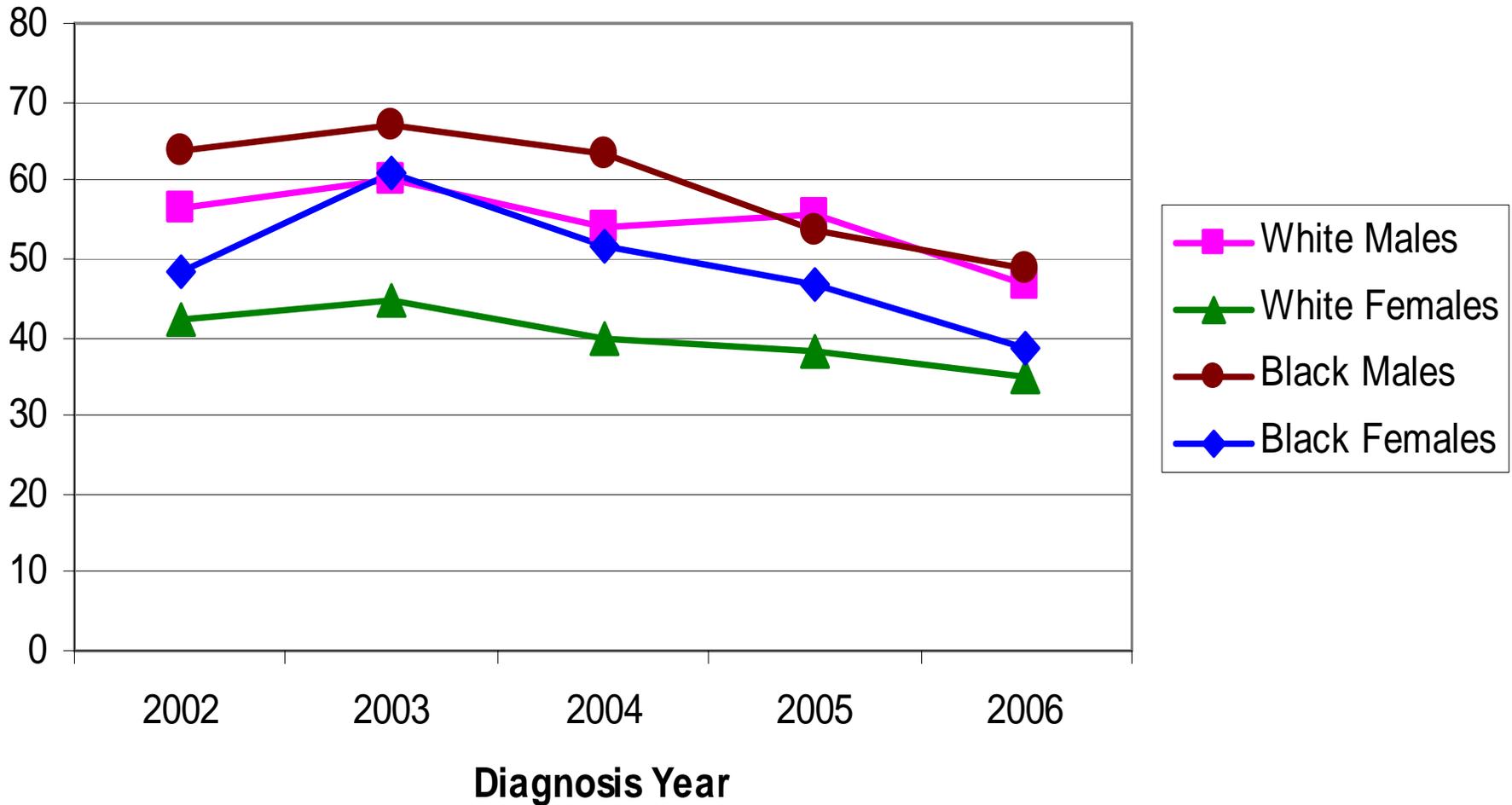
Maryland, 1992-2006



Female Breast Cancer Incidence Rates by Race in Maryland, 2002-2006

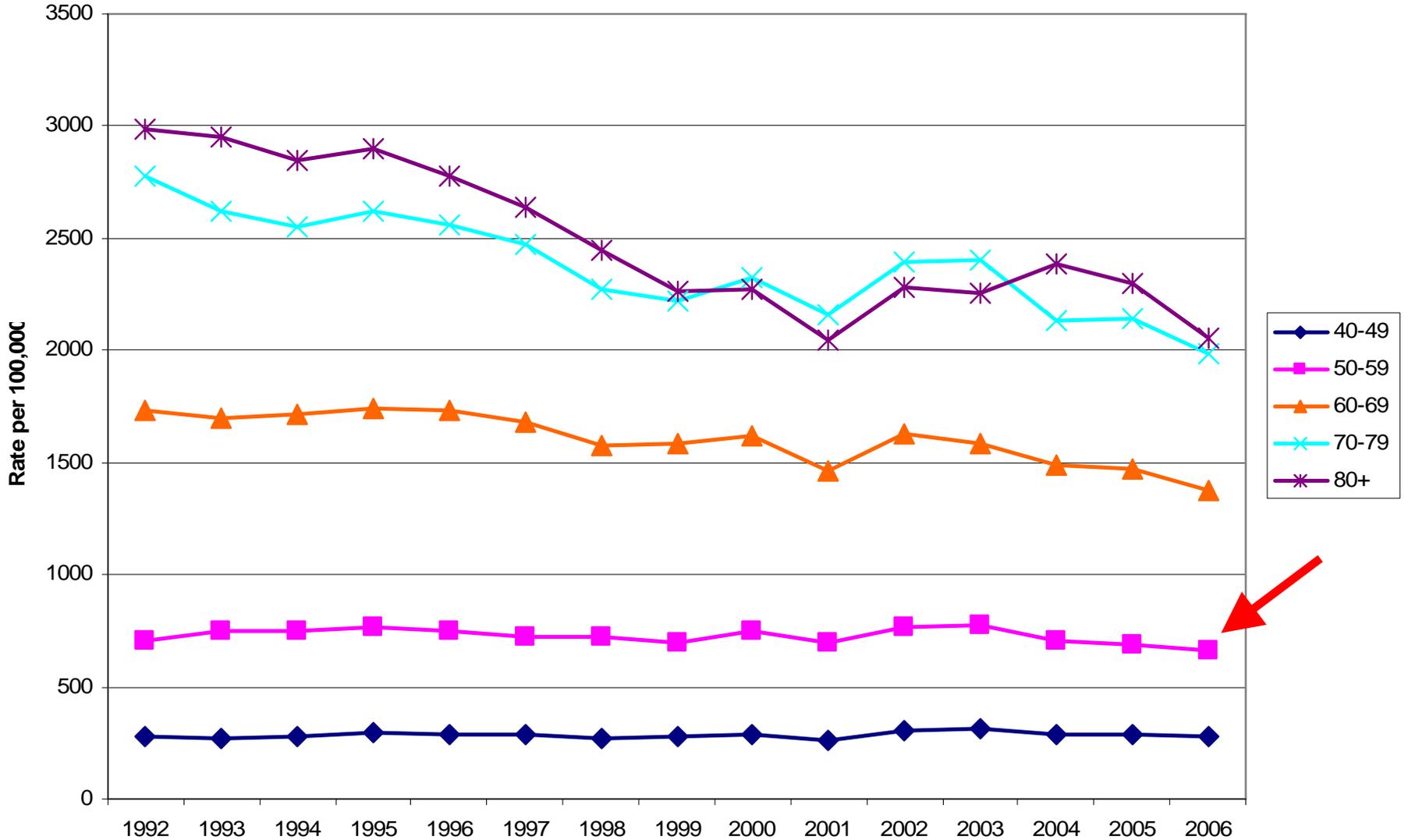


Colorectal Cancer Incidence Rates by Race and Sex in Maryland, 2002-2006



All Cancer
Age-Specific Incidence
RATES

All Cancer Sites Incidence Rate by Age Group in Maryland, 1992-2006

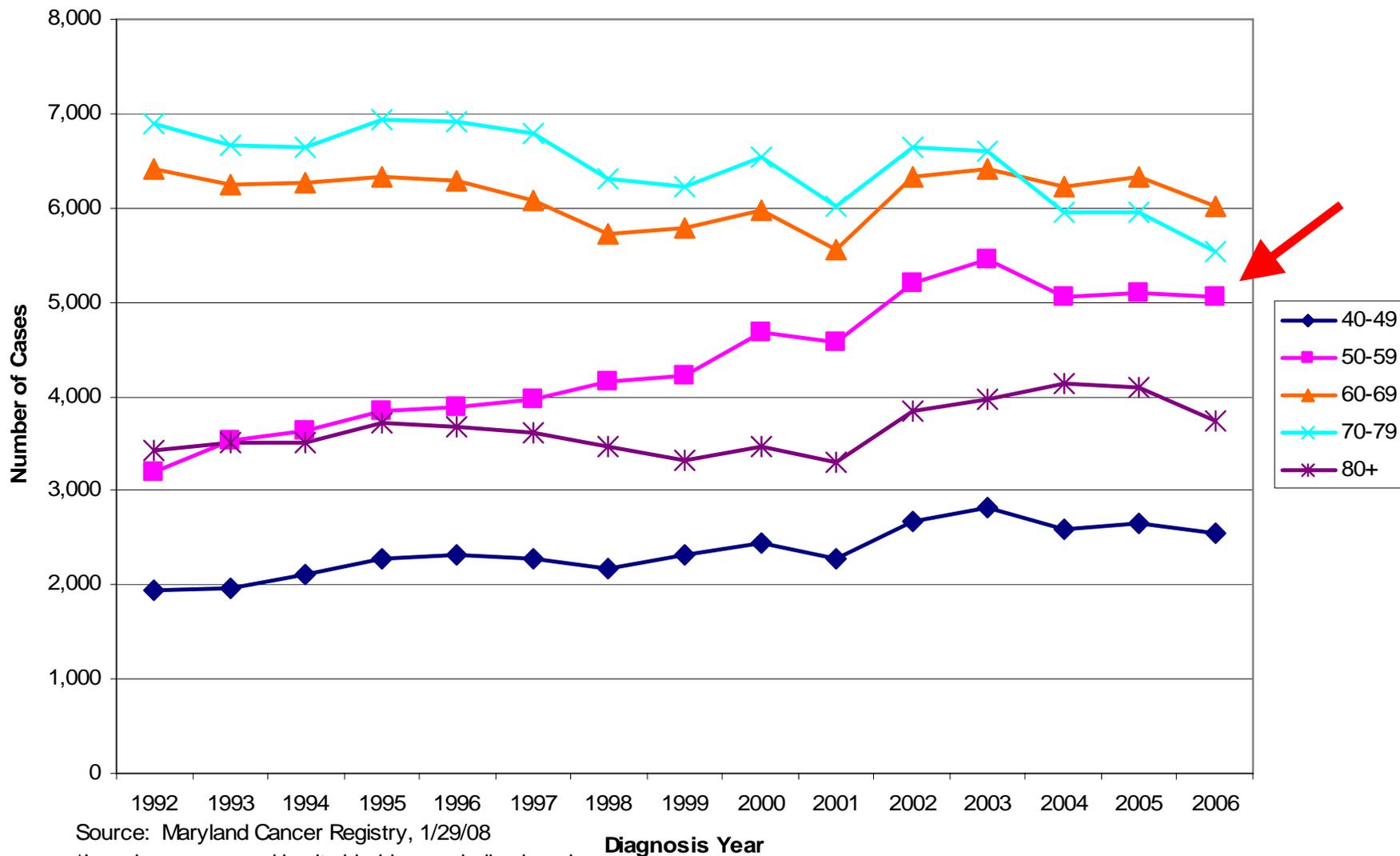


Source: Maryland Cancer Registry, 1/29/08

*Invasive cancer and in situ bladder, excluding basal

All Cancer
Age-Specific Incidence
NUMBERS

All Cancer Sites Number of Cases within Age Group by Diagnosis Year in Maryland, 1992-2006



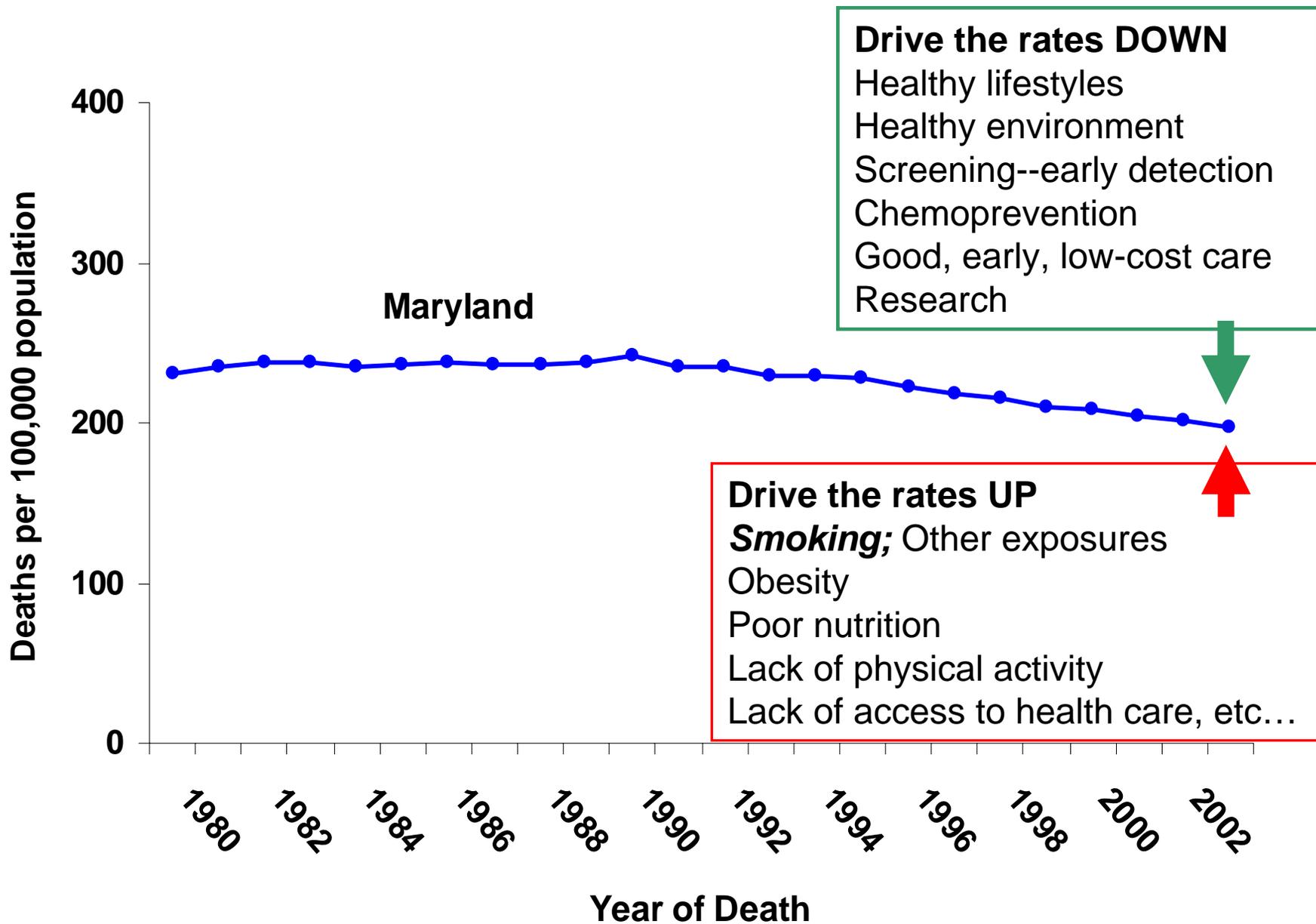
Source: Maryland Cancer Registry, 1/29/08

*Invasive cancer and in situ bladder, excluding basal

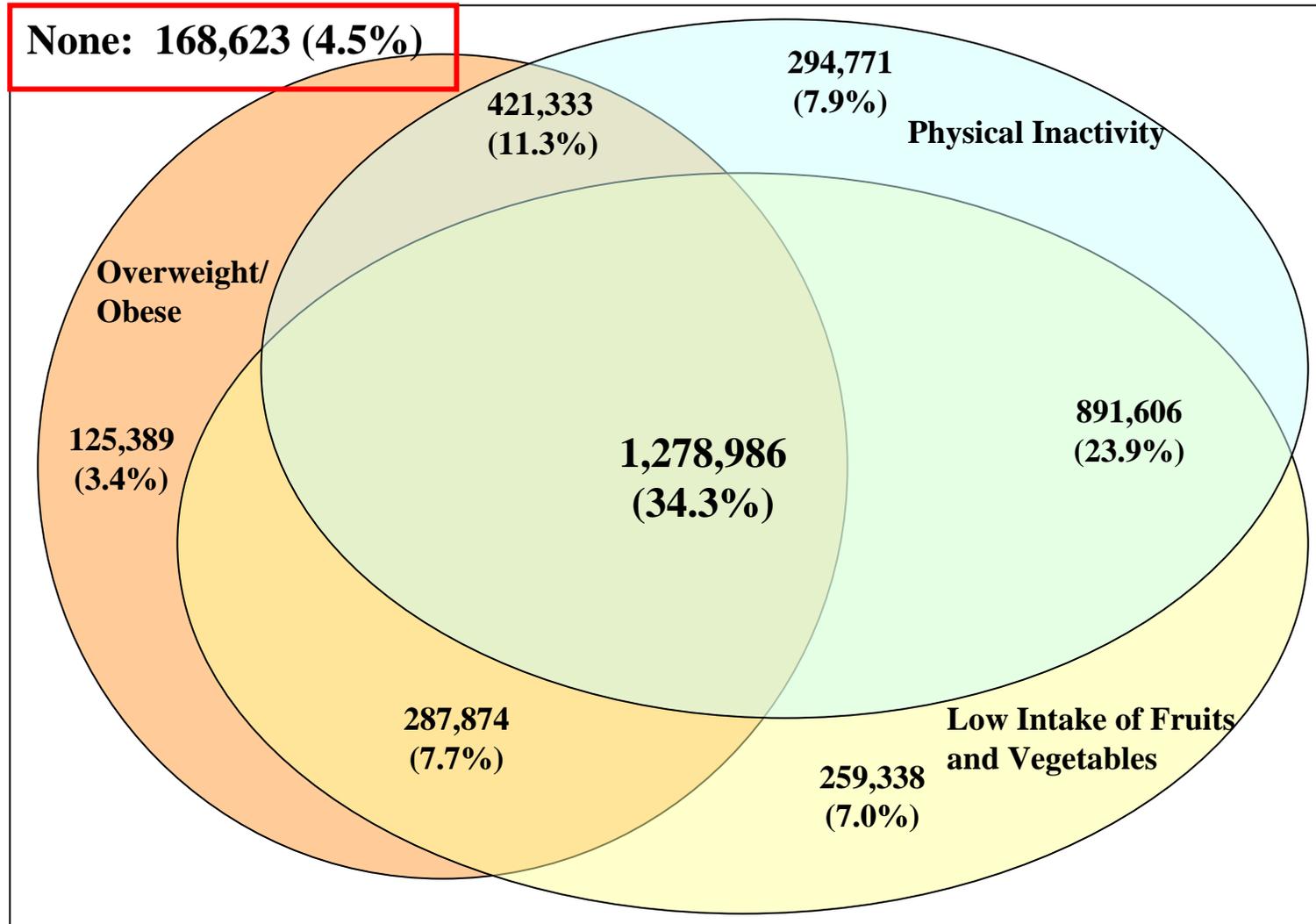
Has Maryland made progress?

YES!

Cancer Mortality Rate, Maryland and U.S., 1980-2003

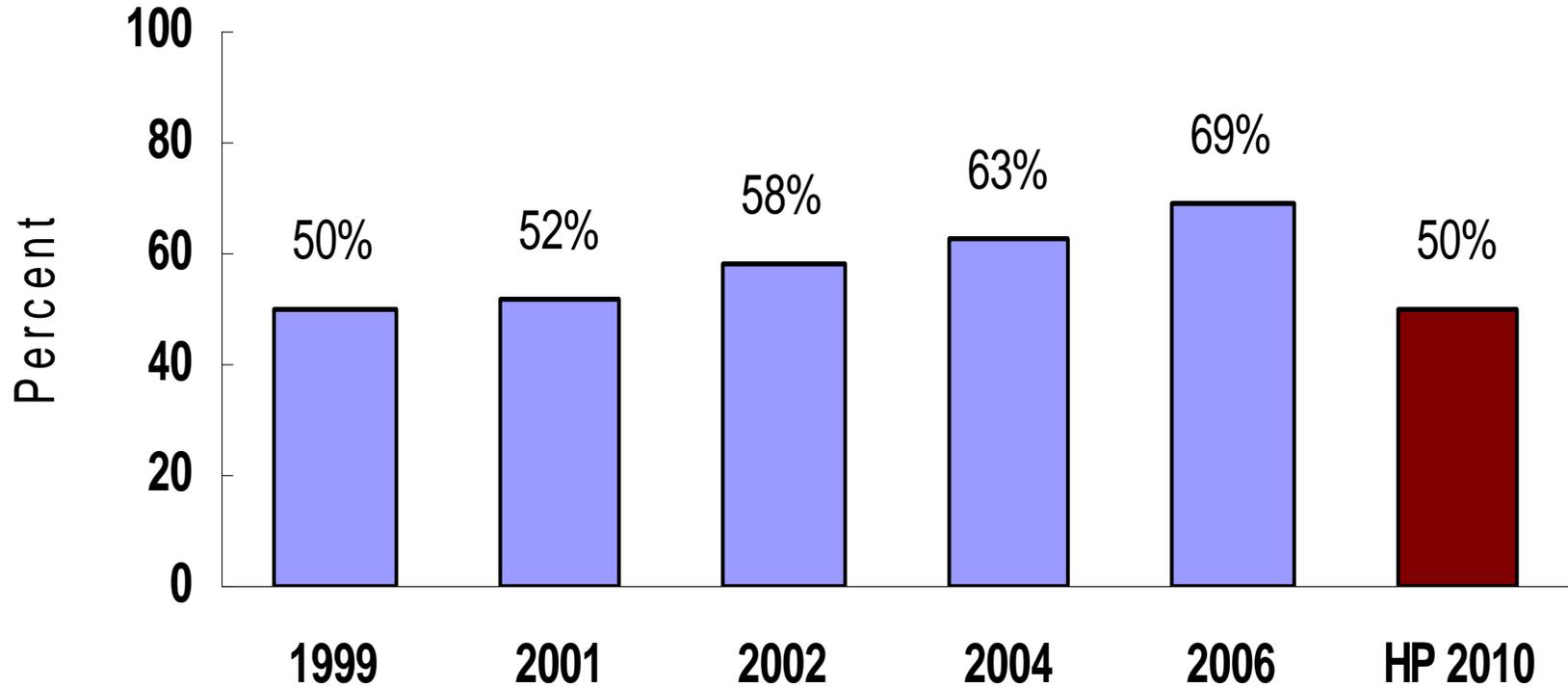


Low Intake of Fruits and Vegetables, Physical Inactivity, and Overweight/Obese: Maryland Adult Weighted Percentages

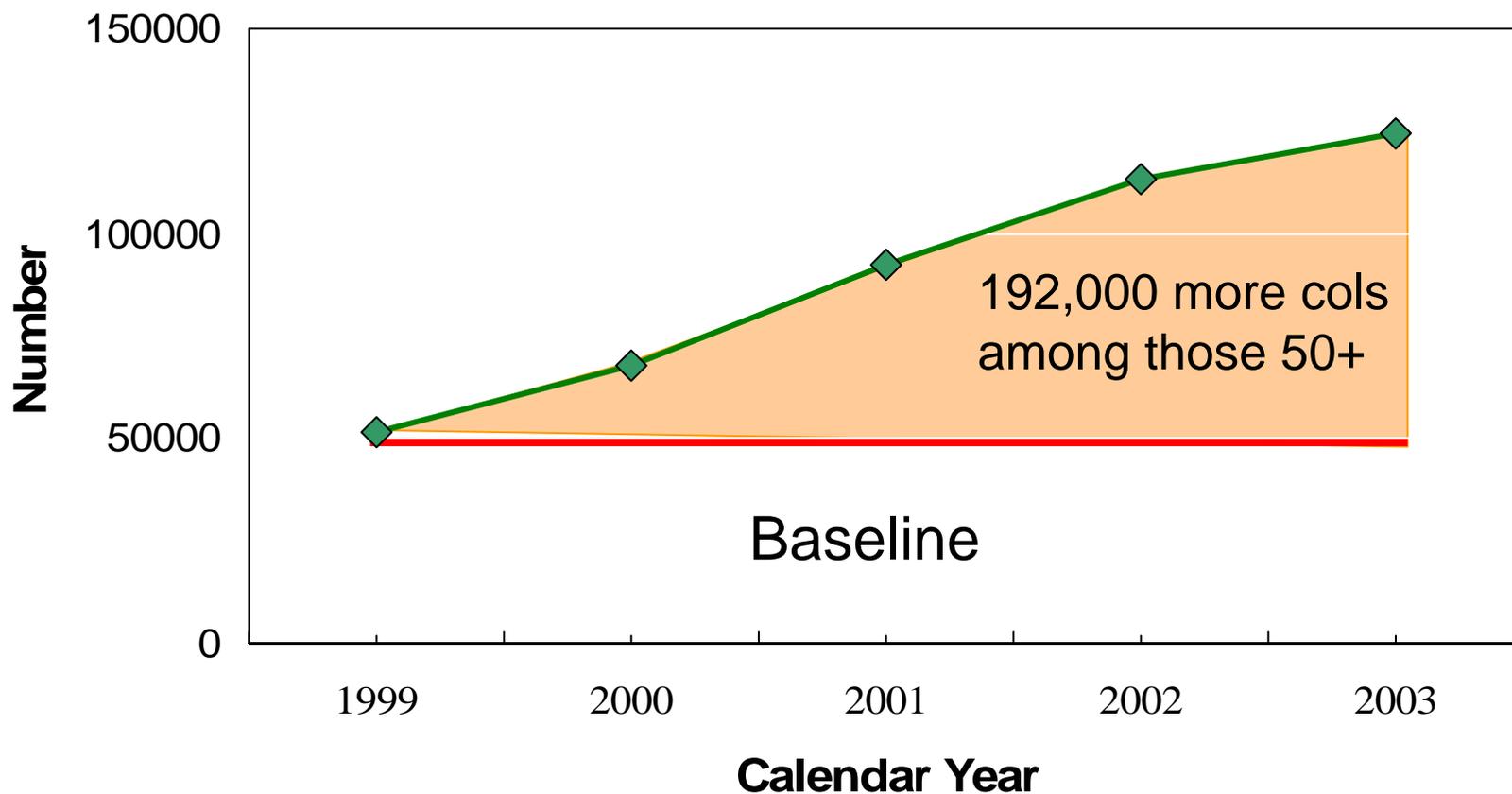


Source: Maryland BRFSS, 2000; Maryland Cancer Plan, page 134

**Percentage of Maryland Adults Age 50 Years and Older
Ever Having a Sigmoidoscopy or Colonoscopy Screening
1999, 2001, 2002, 2004, 2006
Compared to Healthy People 2010 Target**



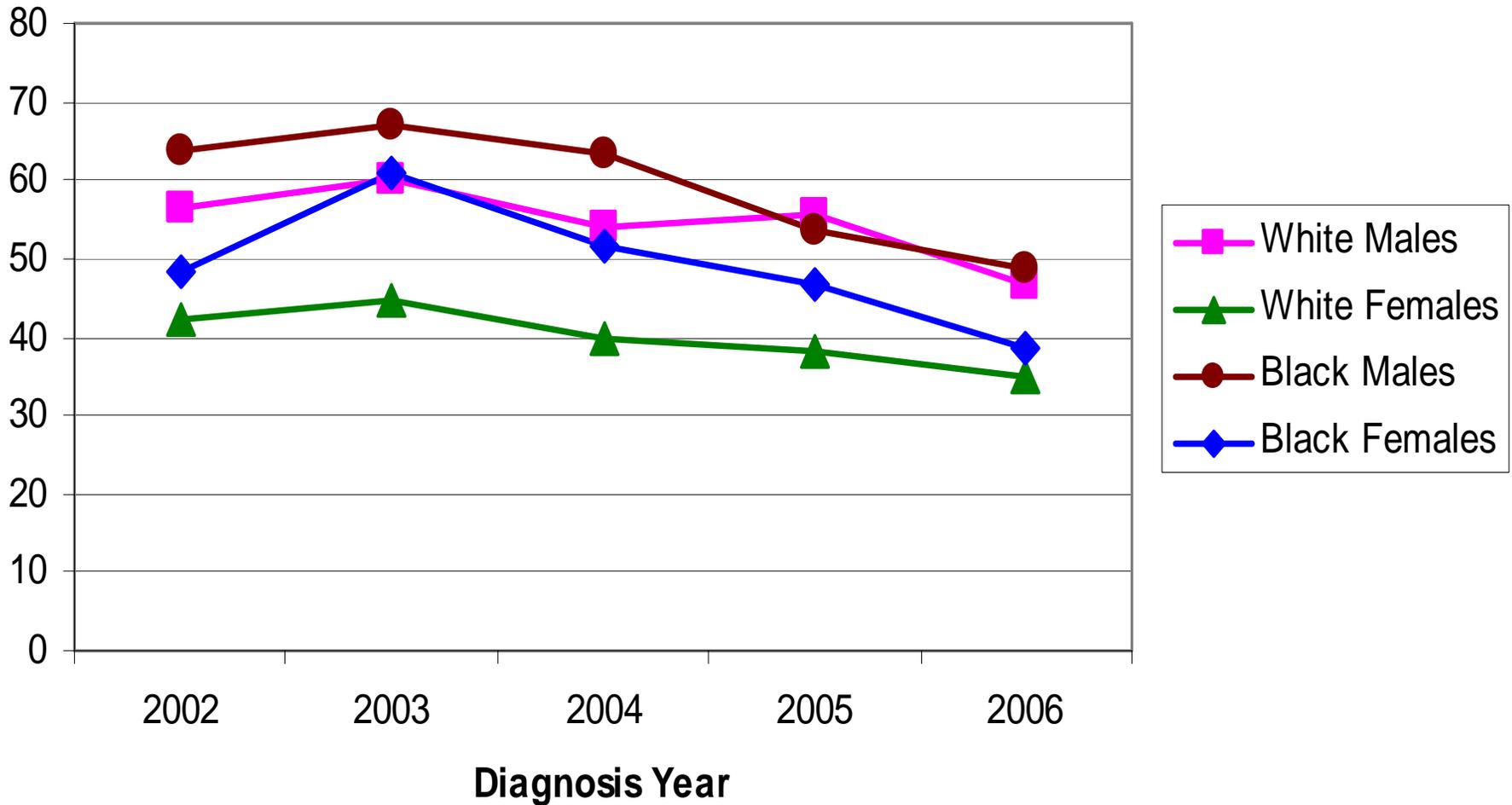
Number of Insured Patients 50+ Who Had a Colonoscopy Maryland, 1999-2003



◆ MD Health Care Commission Total

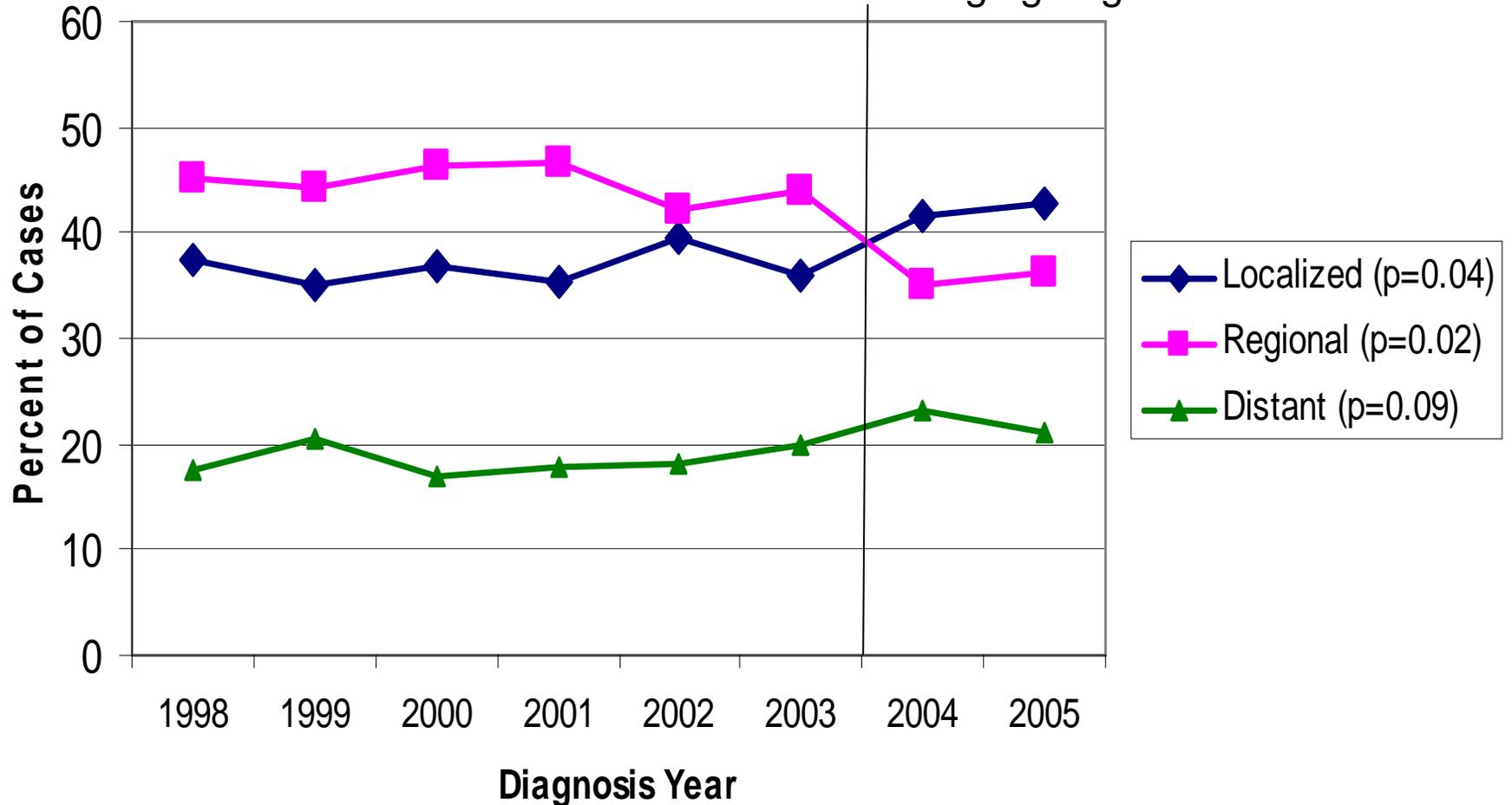
Source: Maryland Health Care Commission—using HEDIS definition of Colonoscopy

Colorectal Cancer Incidence Rates by Race and Sex in Maryland, 2002-2006

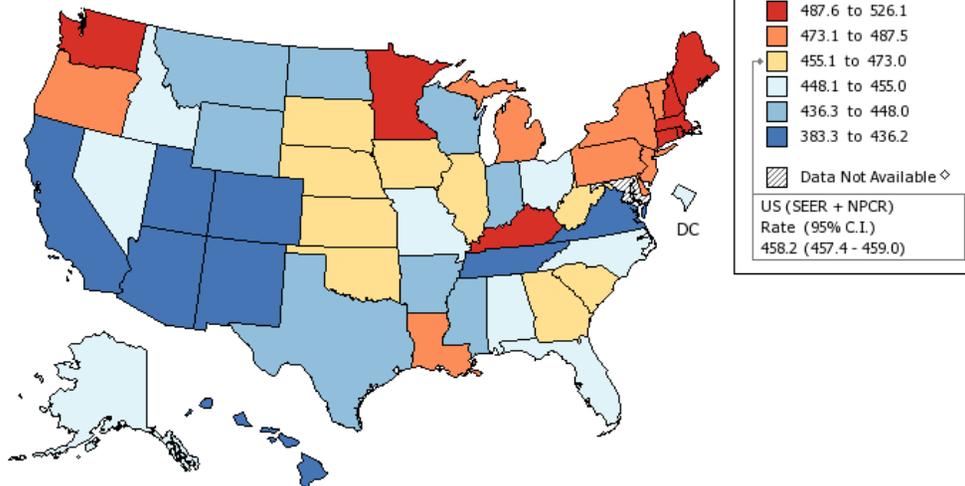


Percent of Invasive Colorectal Cancer among Those Staged, Reported by Hospitals, Stage by Year of Diagnosis, Maryland

Collaborative Staging began in 2004



Latest [†] Incidence Rates [†] for United States
All Cancer Sites
All Races (includes Hispanic), Both Sexes, All Ages
2004 (SEER areas 2005)



Is Maryland a High Cancer Incidence State?

**About average...
and still improving!**