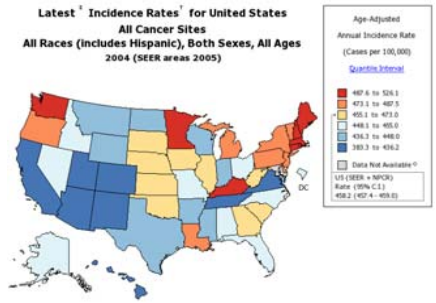


Is Maryland a High Cancer Incidence State?

Diane M. Dwyer, MD
Medical Director
Center for Cancer Surveillance and Control
Maryland Dept. of Health and Mental Hygiene
February 26, 2009

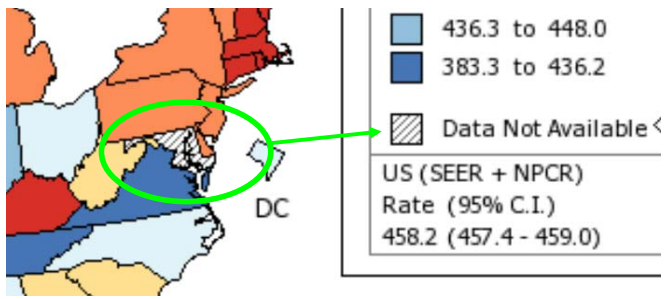
Contact Information

Maryland Dept. of Health and Mental Hygiene

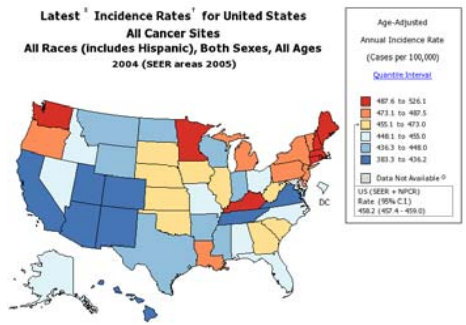
Center for Cancer Surveillance and Control
http://www.fha.state.md.us/cancer/index.cfm

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



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

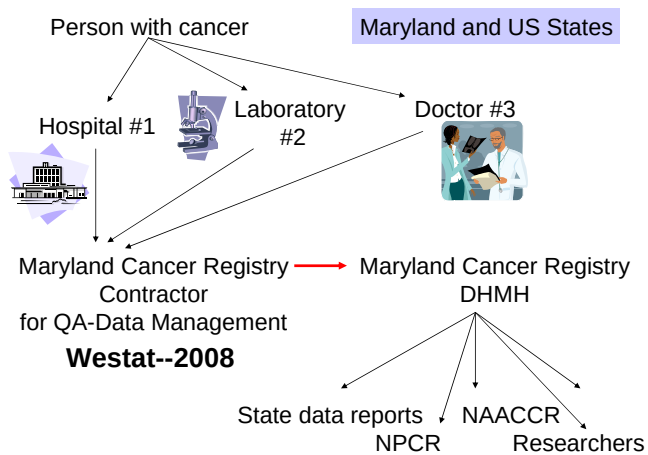
Cancer Registry Advisory Committee

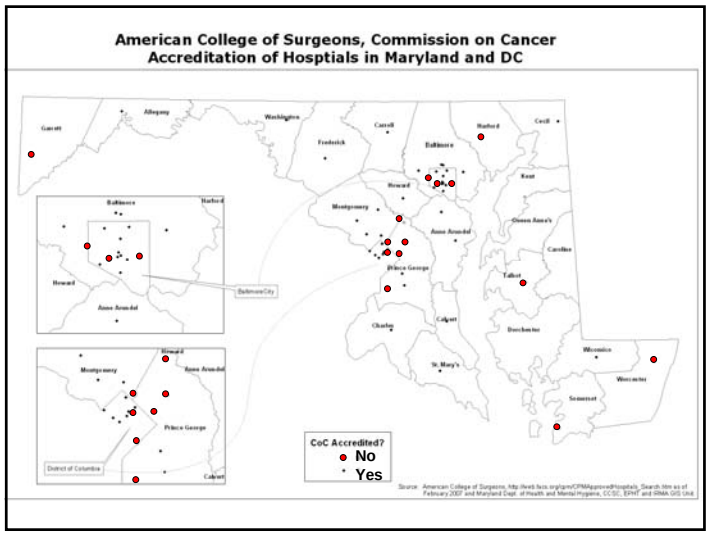
- Kathryn Farrell, Chairperson

How do we count health events?

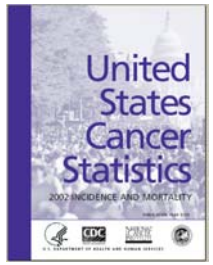
Surveillance for “cancer”

- 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)





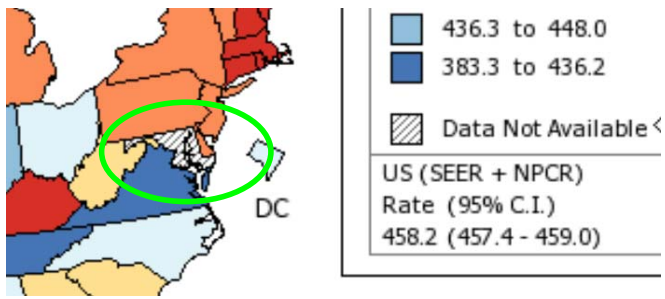
Registry Certification



- 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	>= 95% of “expected” number
Passing edits	97%	100%
Death certificate only cases	<=5%	<=3%
Timeliness	Within 23 months	Within 23 months
Duplicates	<=2/1000	<=1/1000
Missing values: Sex, Age, County	<=3%	<=2%
Missing Race	<=5%	<=3%

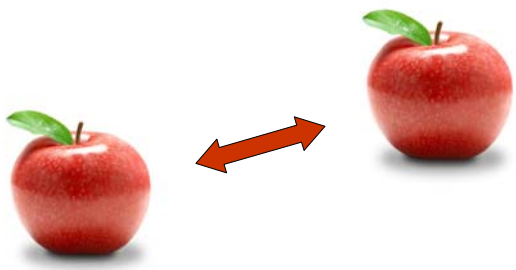


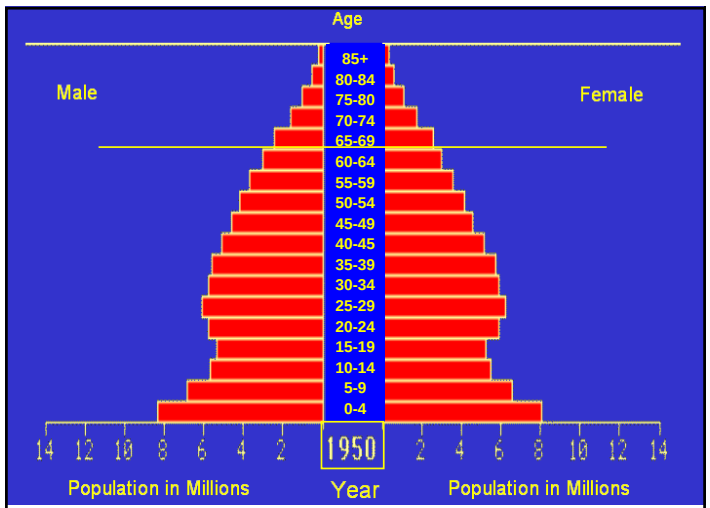
"Cancer" in Maryland… compared to what?

- 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…

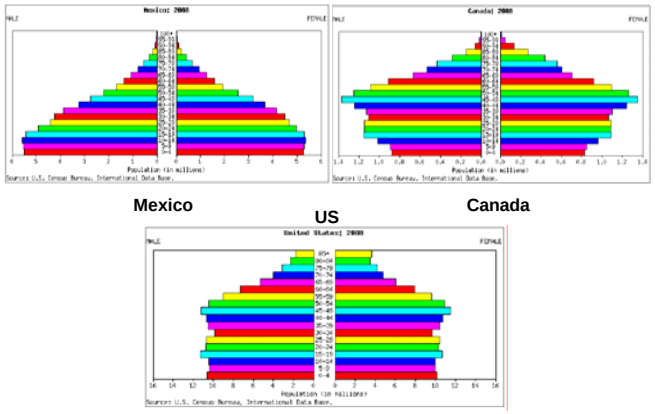
- The world
- Other similar countries
- The United States
- Other similar states
- Maryland
- Other cancers in Maryland
- What Maryland could be





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

2008 Population Pyramids



Mexico

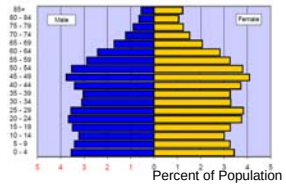
US

Canada

US Census Bureau, International Database

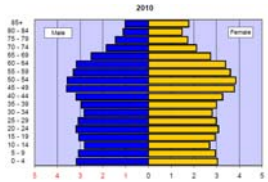
2010 Population Pyramids

Maryland

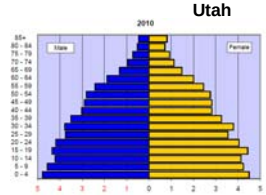


Percent of Population

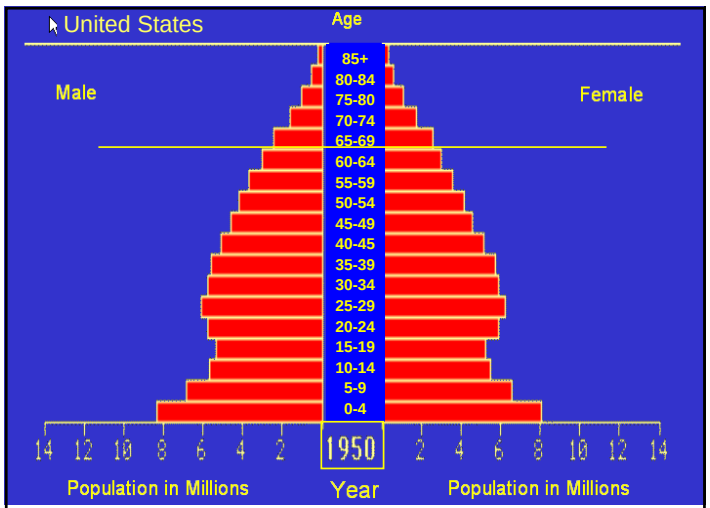
Florida



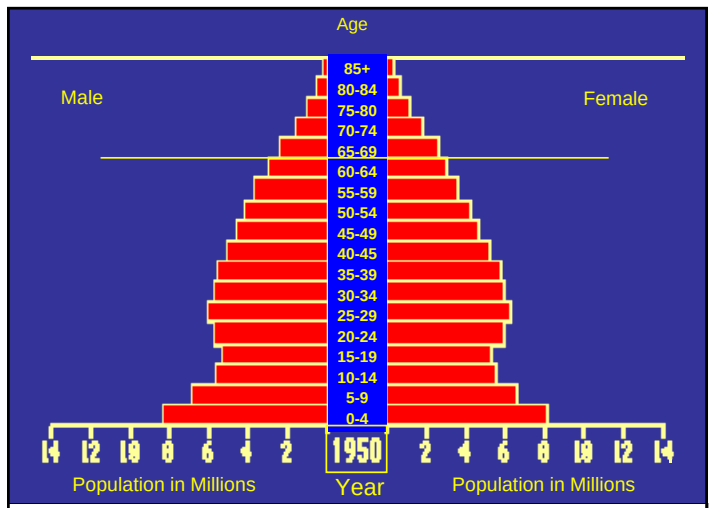
Utah



US Census Bureau, US Population Projections



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



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

The *rate* of cancer
(mortality or incidence)
crude? age-adjusted, standardized?

Trends over time
Comparisons among states, jurisdictions, populations

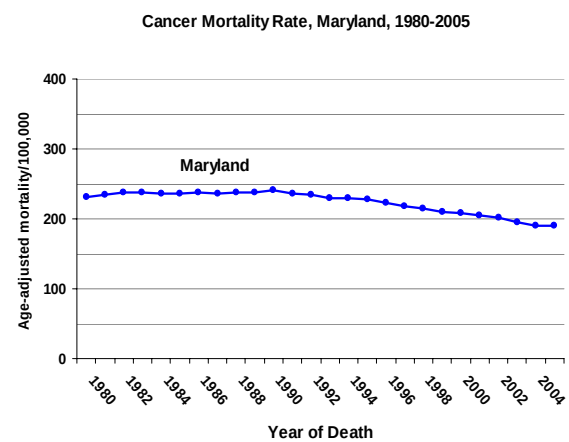
The *rate* of cancer
(mortality or incidence)
crude? age-adjusted, standardized?

Trends over time
Comparisons among states, jurisdictions, populations

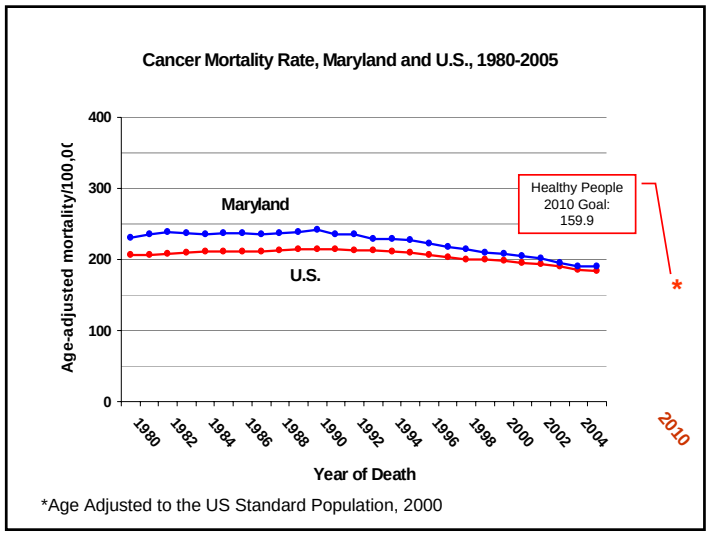
The *number of cases* of cancer

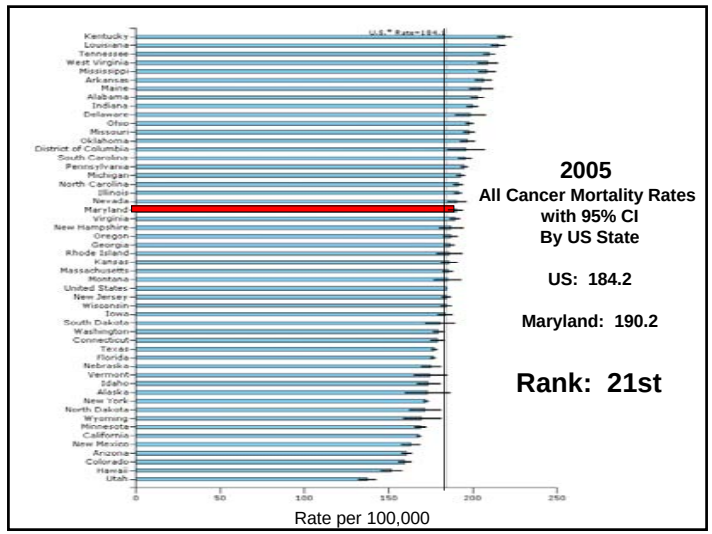
Health care access
Health care costs
Planning
End of life care, etc.

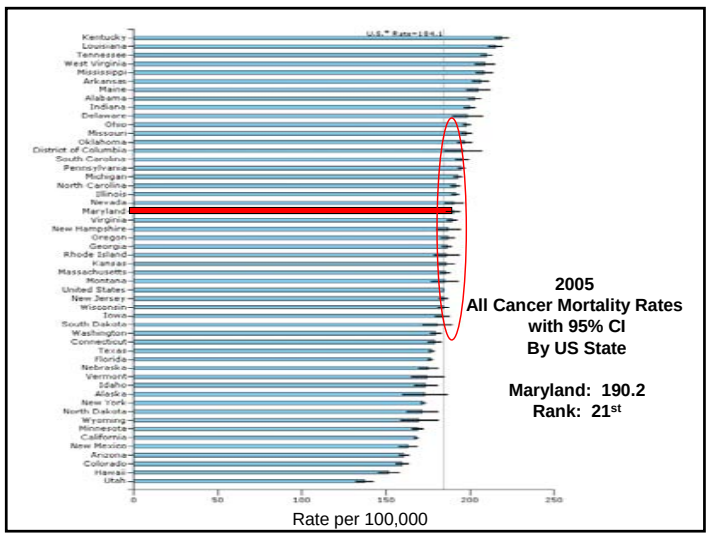
Cancer Mortality Rates



*Age Adjusted to the US Standard Population, 2000


Cancer Mortality Rate, Maryland and U.S., 1980-2005
Age-adjusted mortality/100,0(
400
300
200
100
0
Maryland
U.S.
Healthy People 2010 Goal: 159.9
*
2010
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
Year of Death
*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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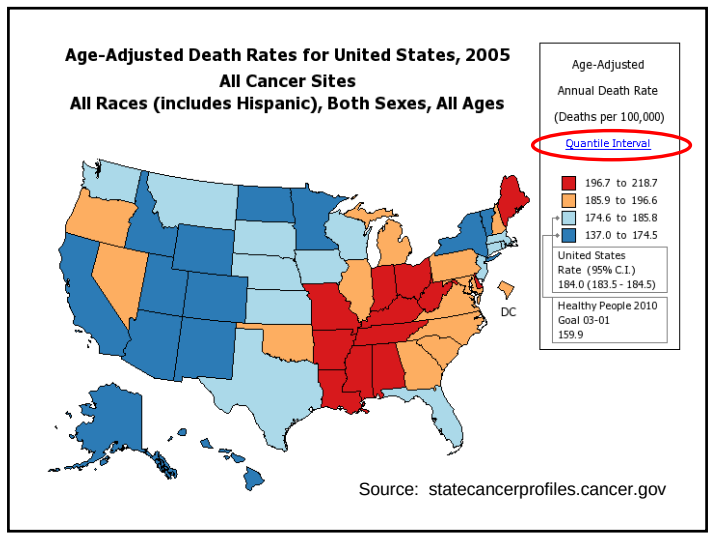
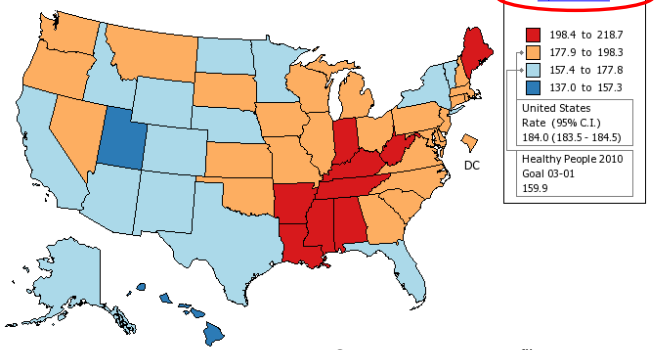
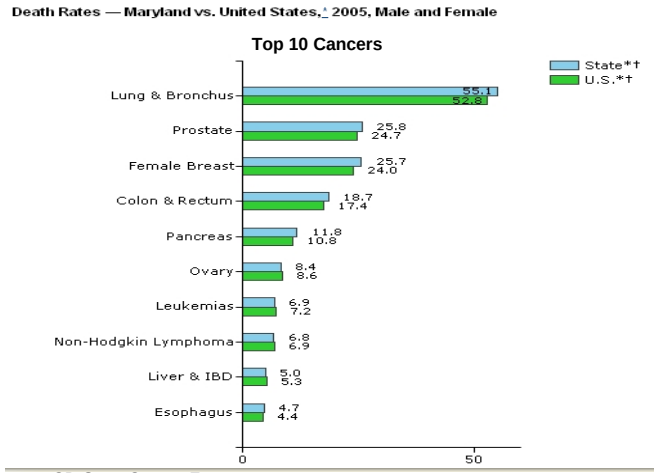

Age-Adjusted Death Rates for United States, 2005
All Cancer Sites
All Races (includes Hispanic), Both Sexes, All Ages
Age-Adjusted
Annual Death Rate
(Deaths per 100,000)
Quantile Interval
196.7 to 218.7
185.9 to 196.6
174.6 to 185.8
137.0 to 174.5
United States Rate (95% C.I.) 184.0 (183.5 - 184.5)
Healthy People 2010 Goal 03-01 159.9
DC
Source: statecancerprofiles.cancer.gov

Age-Adjusted Death Rates for United States, 2005
All Cancer Sites
All Races (includes Hispanic), Both Sexes, All Ages

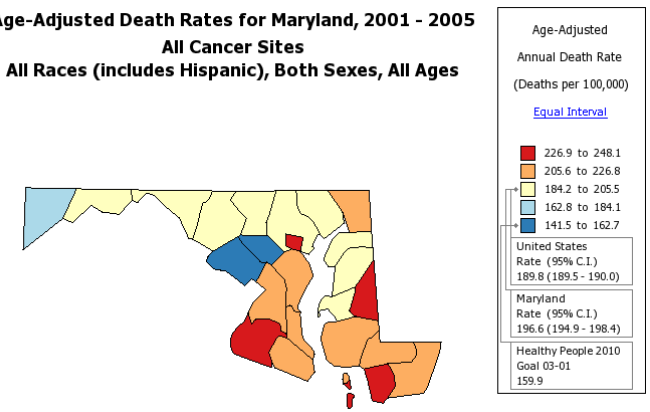


Source: statecancerprofiles.cancer.gov



CD State Cancer Facts

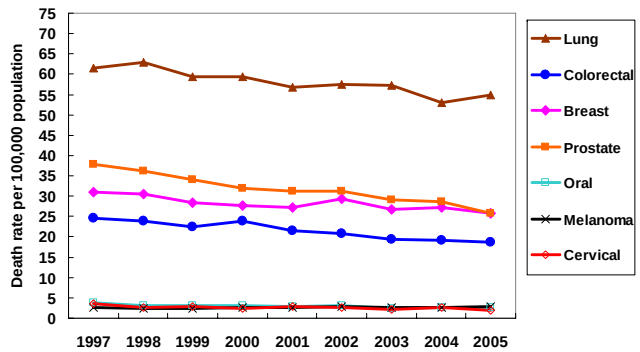
Age-Adjusted Death Rates for Maryland, 2001 - 2005
All Cancer Sites
All Races (includes Hispanic), Both Sexes, All Ages



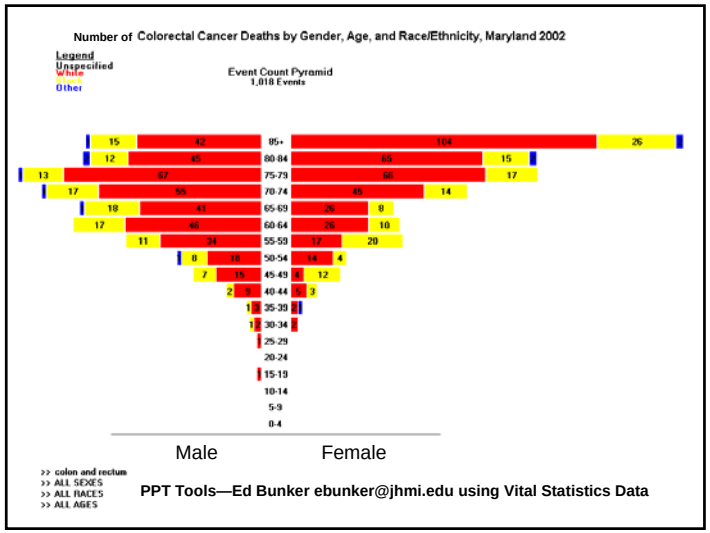
Highest: Baltimore City, Caroline, Charles, Somerset counties

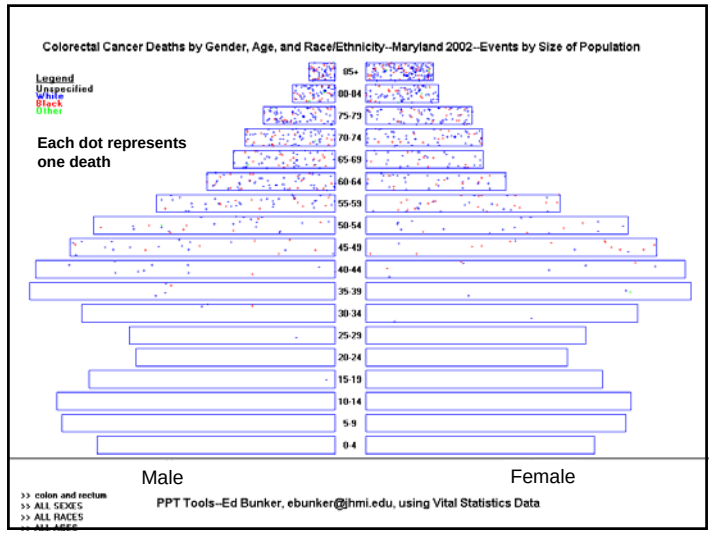
Source: statecancerprofiles.cancer.gov

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

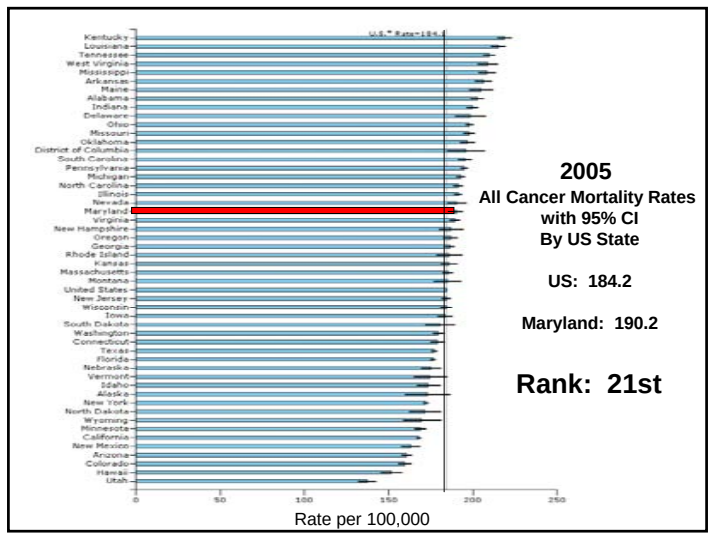


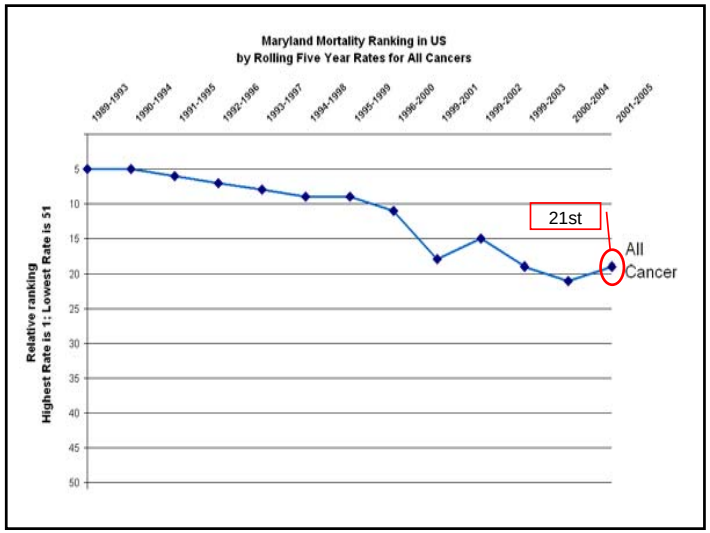
*Mortality rates/100,000 population, age-adjusted to the US standard population 2000

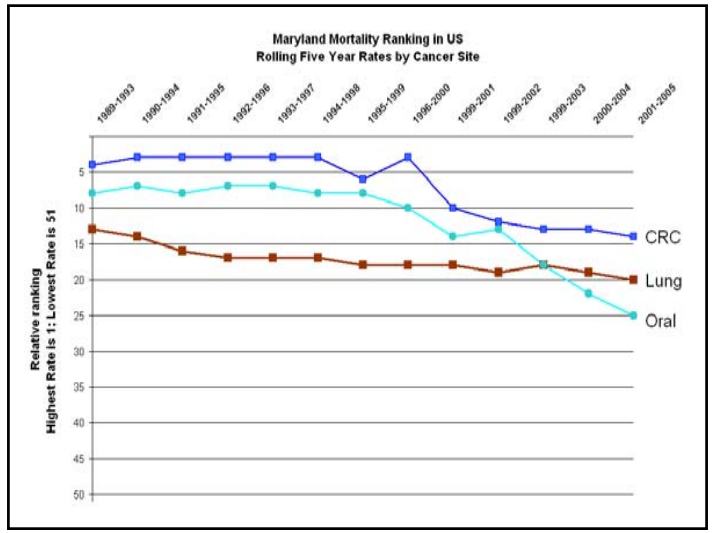


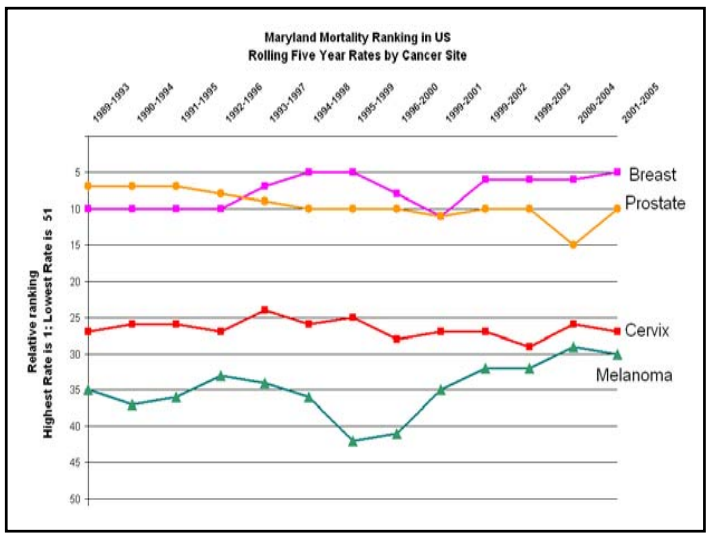


Maryland's Mortality *Ranking* among States

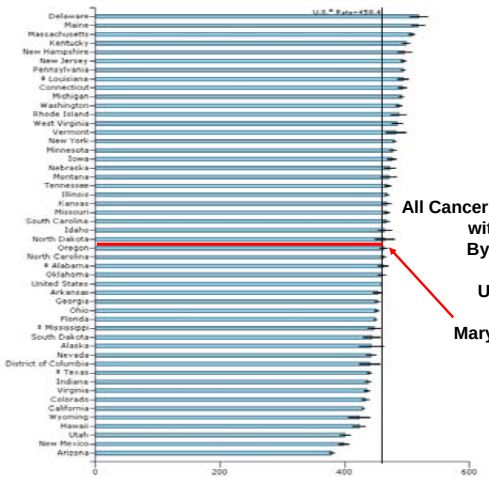


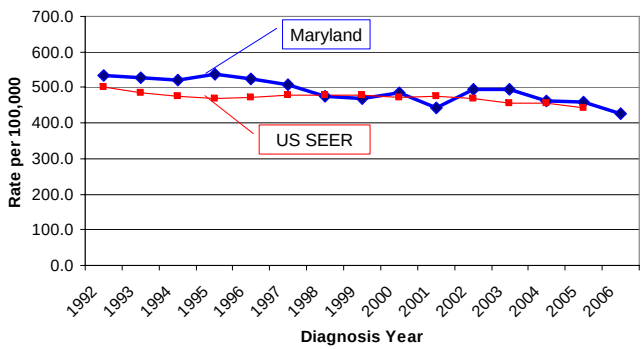




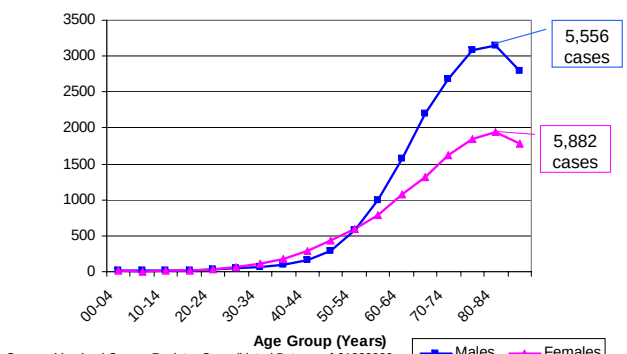


Cancer Incidence
(New cases)

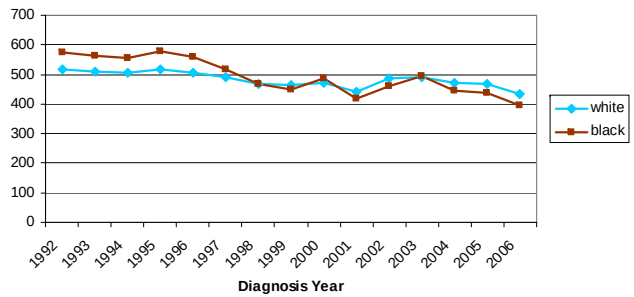


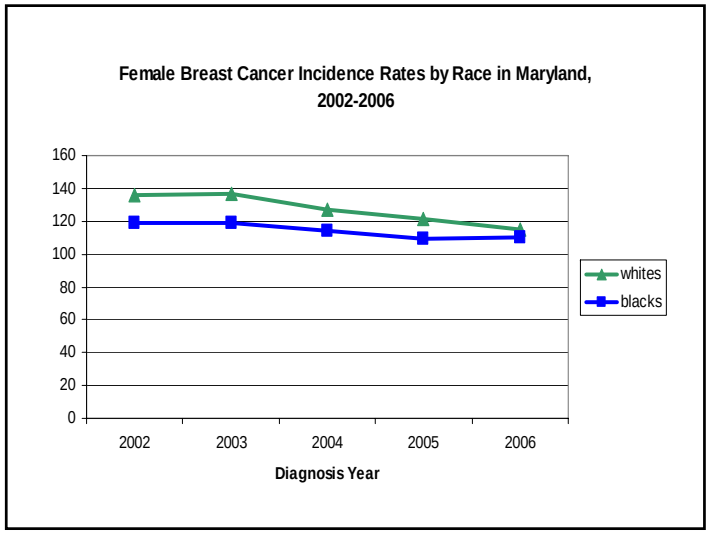


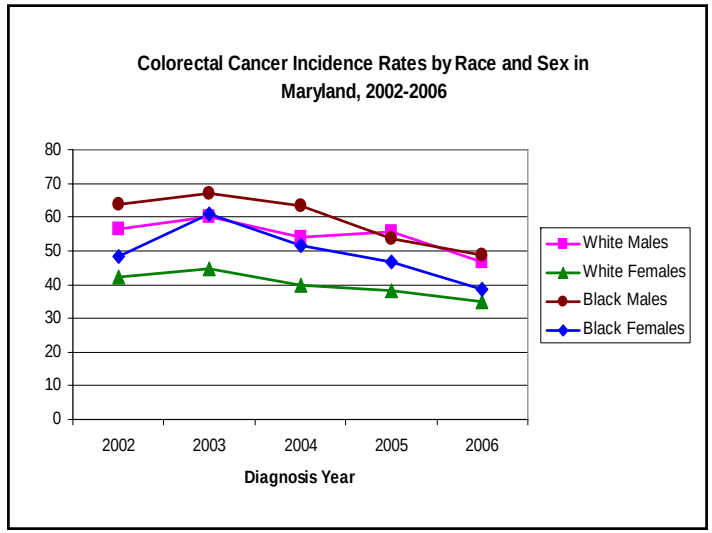
Source: Maryland Cancer Registry, 1/29/08 and SEER.cancer.gov
*Invasive cancer and in situ bladder, excluding basal and squamous skin cancer



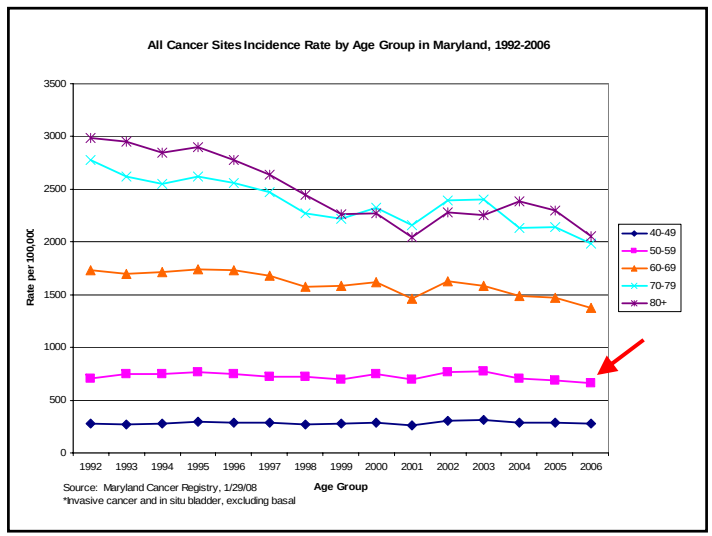
Source: Maryland Cancer Registry Consolidated Data as of 01282009



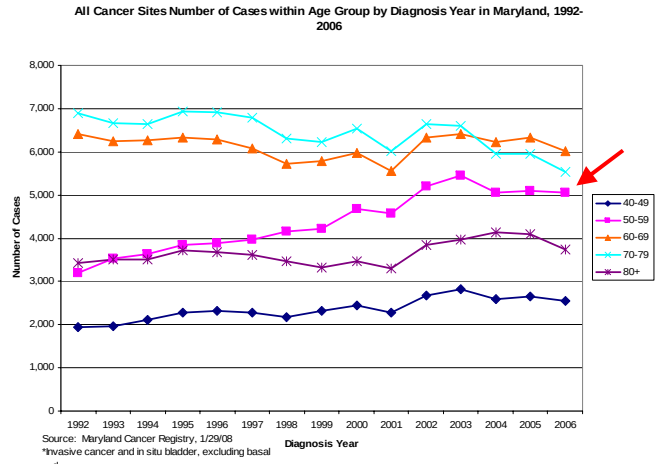




All Cancer
Age-Specific Incidence
RATES

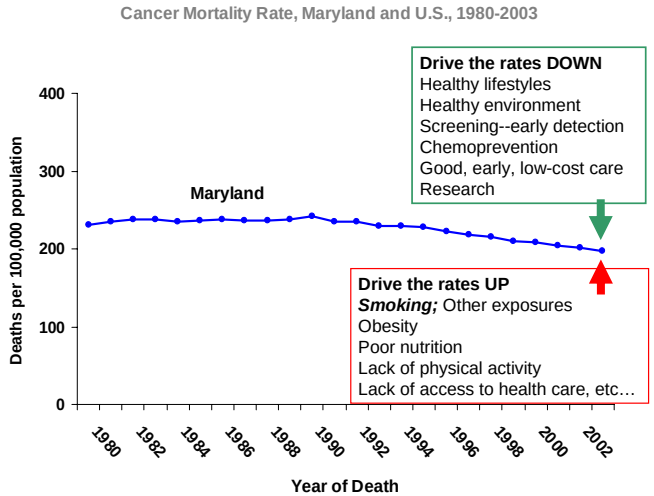


All Cancer
Age-Specific Incidence
NUMBERS

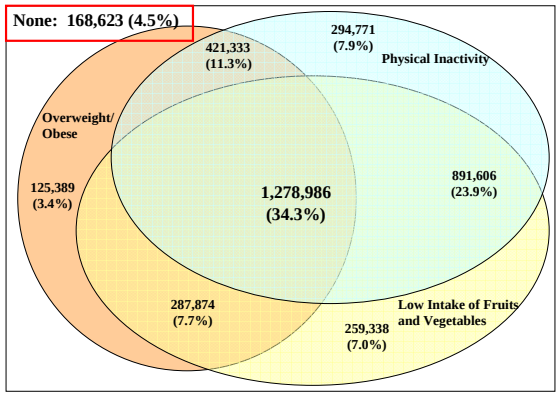


Has Maryland made progress?

YES!

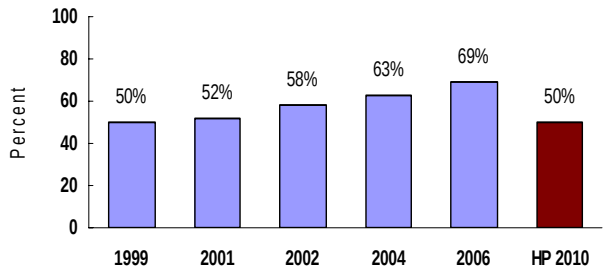


Low Intake of Fruits and Vegetables, Physical Inactivity, and Overweight/Obese:
Maryland Adult Weighted Percentages

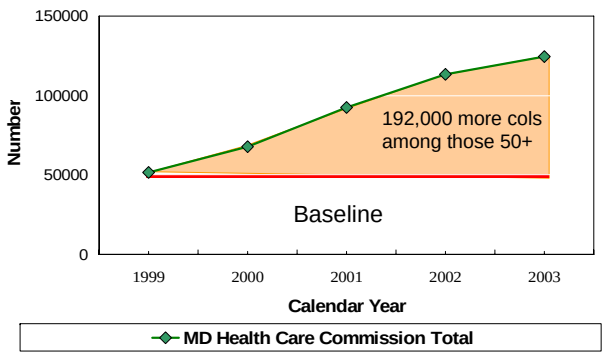


Source: Maryland BRFSS, 2000; Maryland Cancer Plan, page 134

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

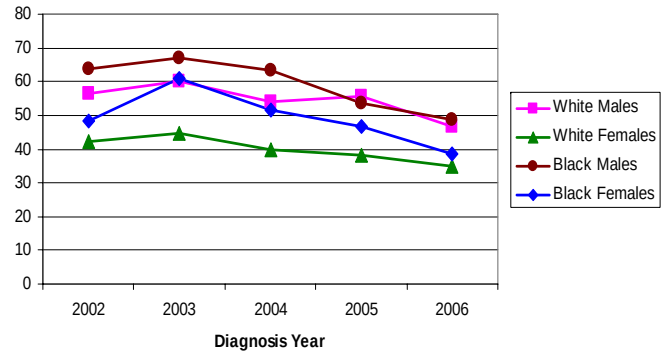


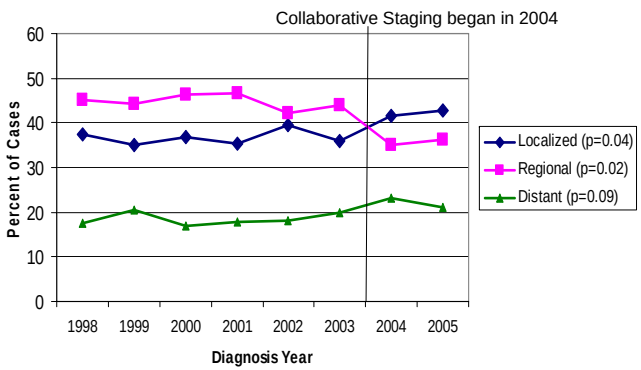
Number of Insured Patients 50+ Who Had a Colonoscopy
Maryland, 1999-2003

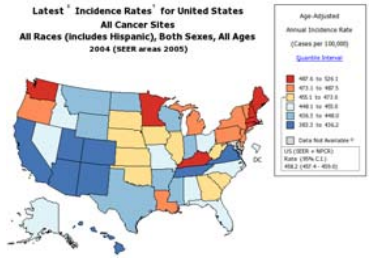


Source: Maryland Health Care Commission—using HEDIS definition of Colonoscopy

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







Is Maryland a High Cancer Incidence State?

About average…
and still improving!