

**COLORECTAL CANCER**

| CCCP Goal/Target<br>Healthy People 2010 Objective |   | Indicator   | Indicator Source | Values, by Year    |      |                     |      |      |      |      |      |      |     |
|---|---|---|------------------|--------------------|------|---------------------|------|------|------|------|------|------|-----|
|   |   |   |                  | 2000               | 2001 | 2002                | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |     |
| Goal  | Reduce colorectal cancer mortality.   | See indicators below  |                  |                    |      |                     |      |      |      |      |      |      |     |
| Goal  | Reduce disparities in the incidence and mortality of colorectal cancer.   | See indicators below  |                  |                    |      |                     |      |      |      |      |      |      |     |
| Target  | By 2008, reduce the colorectal cancer mortality to a rate of no more than 20.8 per 100,000 persons in Maryland.   | Mortality rate for cancer of the colon and rectum:<br>Overall<br><br>White<br>Black<br>Black/White Ratio  | CCCP             | 24.0<br>(baseline) | 22.0 | 20.8                | 19.5 | 19.1 | 18.7 | 18.4 |      |      |     |
|   |   |   |                  | 22.3               | 20.6 | 20.0                | 17.9 | 17.9 | 17.5 | 17.6 |      |      |     |
|   |   |   |                  | 31.0               | 28.5 | 26.1                | 26.6 | 24.9 | 24.8 | 22.7 |      |      |     |
|   |   |   |                  | 1.4                | 1.4  | 1.3                 | 1.5  | 1.4  | 1.4  | 1.3  |      |      |     |
| Target  | By 2008, decrease the percentage of Marylanders aged 50 and over who have never been screened for CRC to 15% or less.   | Percent of adults age 50 years and older who have never had an FOBT or sigmoidoscopy/colonoscopy  | CCCP             |                    |      | 26%<br>(baseline)   |      | 23%  |      | 20%  |      |      | 18% |
| Target  | By 2008, increase the percentage of Marylanders aged 50 and over who are up to date with screening (per ACS guidelines) to 73% or more.   | Percent of adults age 50 years and older who have had an FOBT in past year, flex sig in past 5 years, colonoscopy in past 10 years, or DCBE in past 5 years           | CCCP             |                    |      | 64% *<br>(baseline) |      | 67%  |      | 69%  |      |      | 73% |
| Target  | By 2008, increase the percentage of Marylanders aged 50 and over who have been screened with either colonoscopy in the past 10 years or FOBT in the past year, plus flexible sigmoidoscopy in the past 5 years, to 57% or more. | Percent of adults age 50 years and older who have had sigmoidoscopy or colonoscopy in past 10 years, or FOBT in past year plus flexible sigmoidoscopy in past 5 years | CCCP             |                    |      | 46% *<br>(baseline) |      | 53%  |      | 60%  |      |      | 68% |
| HP 2010 Objective                                 | By 2010, increase the proportion of adults age 50 years and older who have received an FOBT within the preceding 2 years to at least 50%.   | Percent of adults age 50 years and older who have received an FOBT in past 2 years  | HP 2010          |                    | 43%  | 40%                 |      | 33%  |      | 29%  |      |      | 25% |
|   |   |   |                  |                    |      | 44%                 |      | 36%  |      | 32%  |      |      | 28% |
| HP 2010 Objective                                 | By 2010, increase the proportion of adults age 50 years and over who have ever received a sigmoidoscopy or colonoscopy to at least 50%.   | Percent of adults age 50 years and older who have ever received a sigmoidoscopy or colonoscopy  | HP 2010          |                    | 52%  | 55%                 |      | 61%  |      | 66%  |      |      | 71% |
|   |   |   |                  |                    |      | 58%                 |      | 63%  |      | 69%  |      |      | 75% |

Mortality rates are per 100,000 and are age-adjusted to the U.S. standard population

\* Original 2002 baseline revised slightly in re-analysis of Maryland Cancer Survey data

\*\* HP 2010 Midcourse Review, U.S. Dept. of Health and Human Services, 2006

MD BRFSS: Maryland Behavioral Risk Factor Surveillance System

CCCP: Comprehensive Cancer Control Plan

CDC: Centers for Disease Control and Prevention

HP: Healthy People 2010

MCS: Maryland Cancer Survey

NCHS: National Center for Health Statistics

**Table 1.**  
**Colorectal Cancer Incidence Data\***  
**by Gender and Race, Maryland and the United States, 2004-2006**

|                      | <i>Total</i> | <i>Males</i> | <i>Females</i> | <i>Whites</i> | <i>Blacks</i> | <i>Other</i> |
|----------------------|--------------|--------------|----------------|---------------|---------------|--------------|
| 2004                 |              |              |                |               |               |              |
| MD New Cases (count) | 2,630        | 1,285        | 1,342          | 1,853         | 673           | 86           |
| MD Incidence Rate    | 48.6         | 55.7         | 43.4           | 46.1          | 55.8          | 40.9         |
| U.S. SEER Rate       | 48.9         | 57.3         | 42.3           | 48.4          | 59.5          | 39.6         |
| 2005                 |              |              |                |               |               |              |
| MD New Cases (count) | 2,554        | 1,286        | 1,266          | 1,842         | 619           | 81           |
| MD Incidence Rate    | 46.3         | 54.9         | 40.2           | 45.5          | 49.4          | 34.0         |
| U.S. SEER Rate       | 47.7         | 55.4         | 41.5           | 47.3          | 57.8          | 38.5         |
| 2006                 |              |              |                |               |               |              |
| MD New Cases (count) | 2,322        | 1,161        | 1,156          | 1,640         | 568           | 95           |
| MD Incidence Rate    | 41.3         | 48.1         | 36.2           | 40.2          | 42.7          | 37.5         |
| U.S. SEER Rate       | 45.9         | 52.8         | 40.5           | 45.3          | 56.2          | 38.0         |

\* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

Total includes cases reported as transsexual, hermaphrodite, unknown gender, and unknown race

Source: Maryland Cancer Registry, 2004-2006

U.S. (SEER 17) rates from NCI SEER\*Stat

**Table 2.**  
**Colorectal Cancer Mortality Data\***  
**by Gender and Race, Maryland and the United States, 2004-2006**

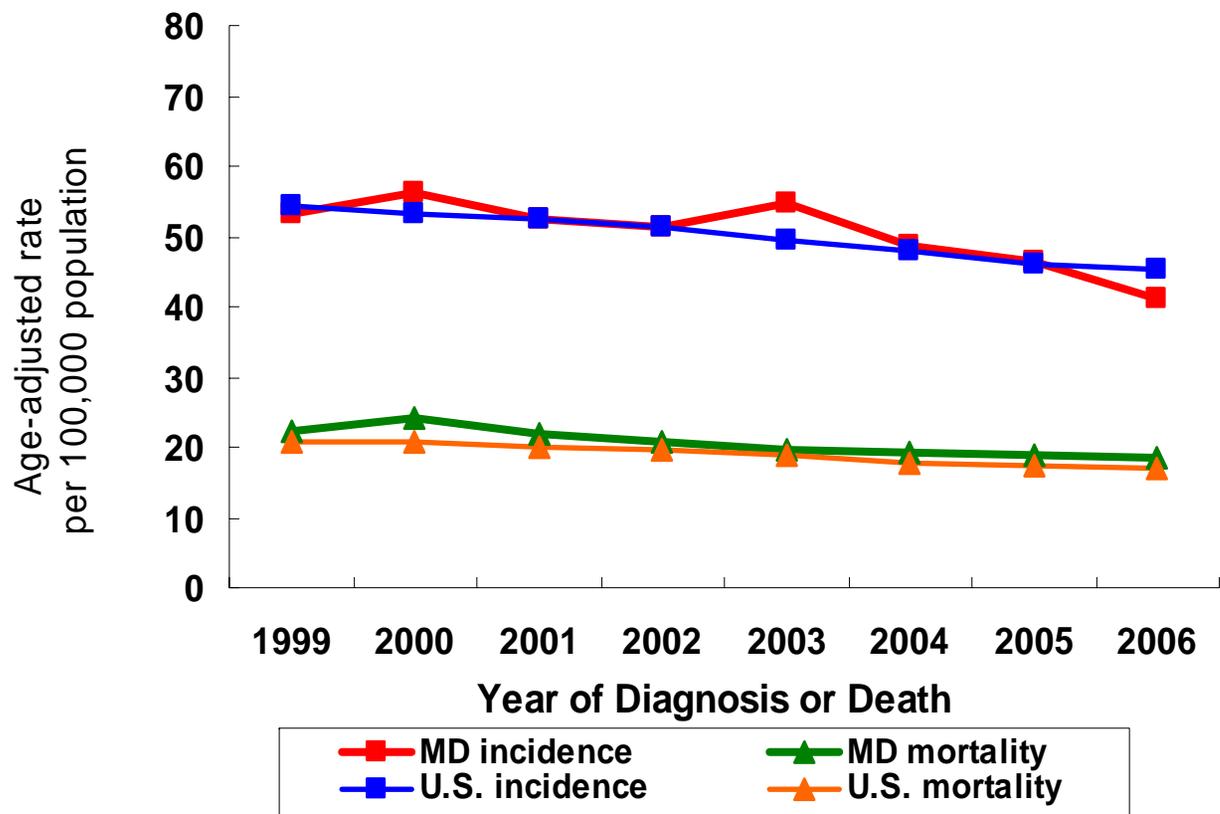
|                     | <i>Total</i> | <i>Males</i> | <i>Females</i> | <i>Whites</i> | <i>Blacks</i> | <i>Other</i> |
|---------------------|--------------|--------------|----------------|---------------|---------------|--------------|
| 2004                |              |              |                |               |               |              |
| MD Deaths (count)   | 1,013        | 509          | 504            | 718           | 276           | 19           |
| MD Mortality Rate   | 19.1         | 23.2         | 16.1           | 17.9          | 24.9          | 8.4          |
| U.S. Mortality Rate | 17.9         | 21.5         | 15.2           | 17.5          | 24.7          | 11.3         |
| 2005                |              |              |                |               |               |              |
| MD Deaths (count)   | 1,017        | 533          | 484            | 710           | 292           | 15           |
| MD Mortality Rate   | 18.7         | 23.2         | 15.2           | 17.5          | 24.8          | **           |
| U.S. Mortality Rate | 17.4         | 20.9         | 14.7           | 16.8          | 24.7          | 11.3         |
| 2006                |              |              |                |               |               |              |
| MD Deaths (count)   | 1,015        | 495          | 520            | 719           | 274           | 22           |
| MD Mortality Rate   | 18.4         | 21.8         | 16.1           | 17.6          | 22.7          | 9.5          |
| U.S. Mortality Rate | 17.1         | 20.4         | 14.6           | 16.6          | 24.1          | 10.9         |

\* Rates are per 100,000 and are age-adjusted to 2000 U.S. standard population

\*\* MD mortality rates based on death counts of 0-15 are suppressed per DHMH/CCSC Mortality Data Suppression Policy

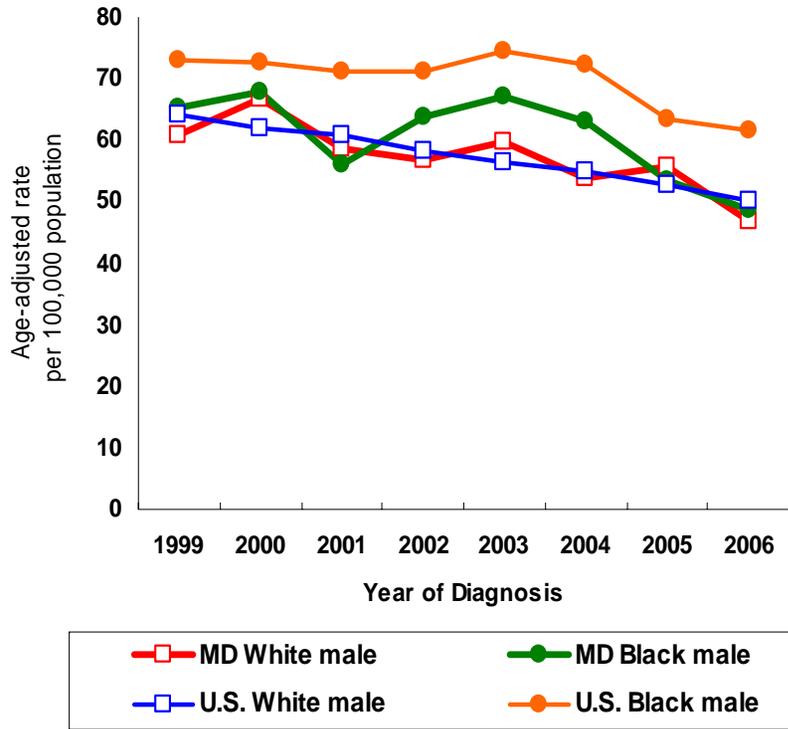
Source: NCHS Compressed Mortality File in CDC WONDER

**Figure 1. Colorectal Cancer Incidence and Mortality Rates by Year of Diagnosis or Death, Maryland and U.S. 1999-2006**

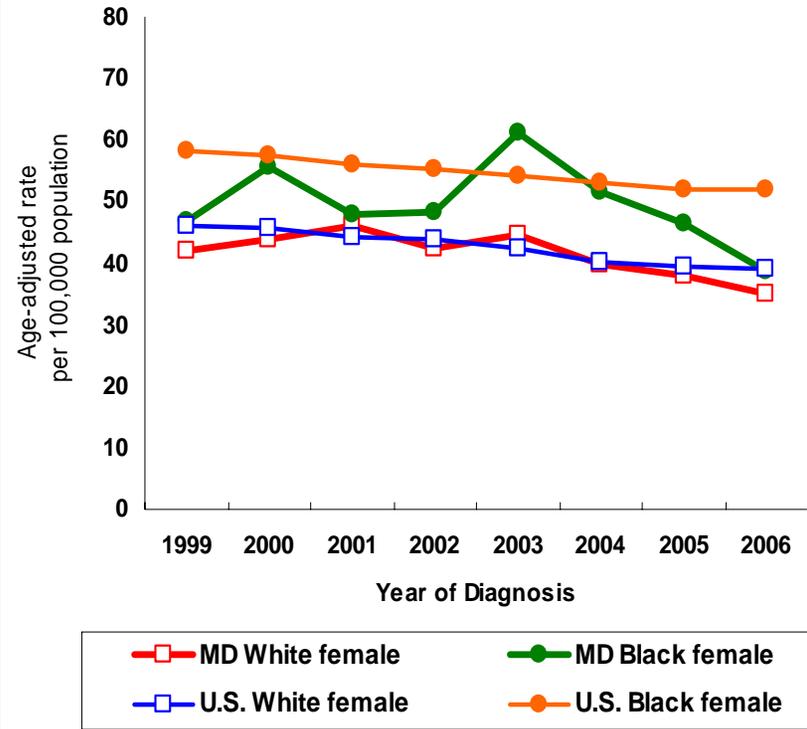


Rates are age-adjusted to 2000 U.S. standard population  
Maryland incidence rates from Maryland Cancer Registry, 1999-2006  
U.S. (SEER 13) incidence rates from NCI SEER\*Stat  
Mortality rates from NCHS Compressed Mortality File in CDC WONDER

**Figure 2. Colorectal Cancer Incidence Rates Among Males by Race, Maryland and U.S., 1999-2006**

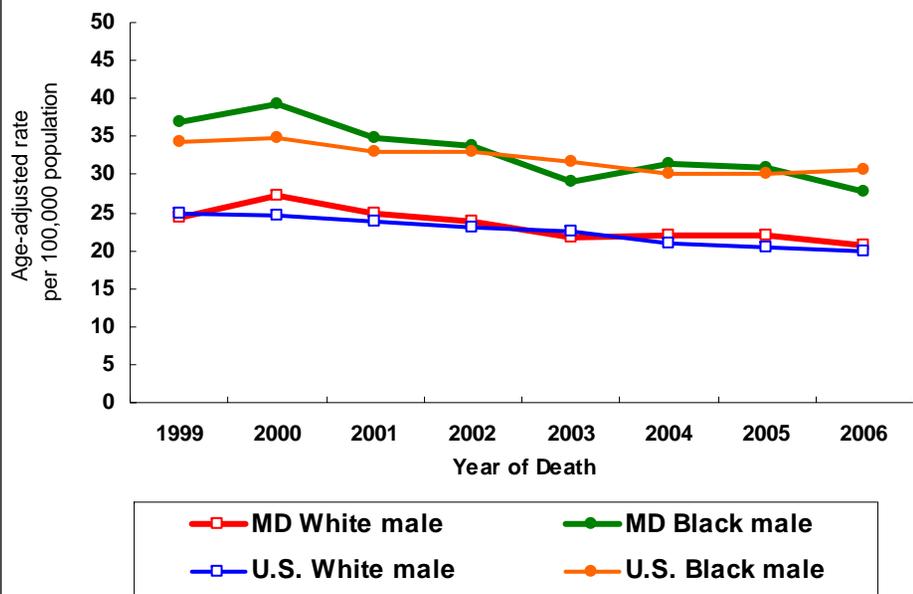


**Figure 3. Colorectal Cancer Incidence Rates Among Females by Race, Maryland and U.S., 1999-2006**



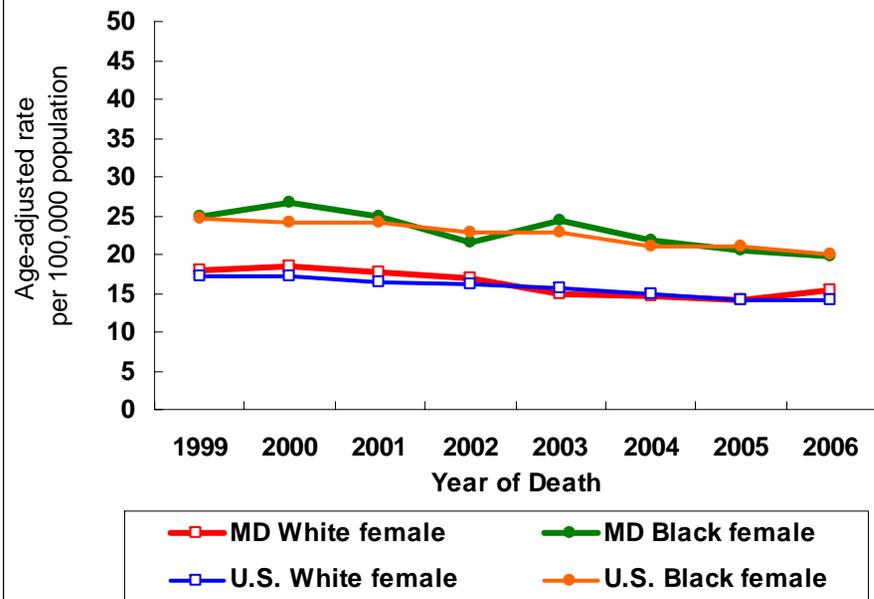
Rates are age-adjusted to 2000 U.S. standard population  
 Maryland rates from Maryland Cancer Registry, 1999-2006  
 U.S. (SEER 13) rates from NCI SEER\*Stat

**Figure 4. Colorectal Cancer Mortality Rates Among Males by Race, Maryland and U.S., 1999-2006**



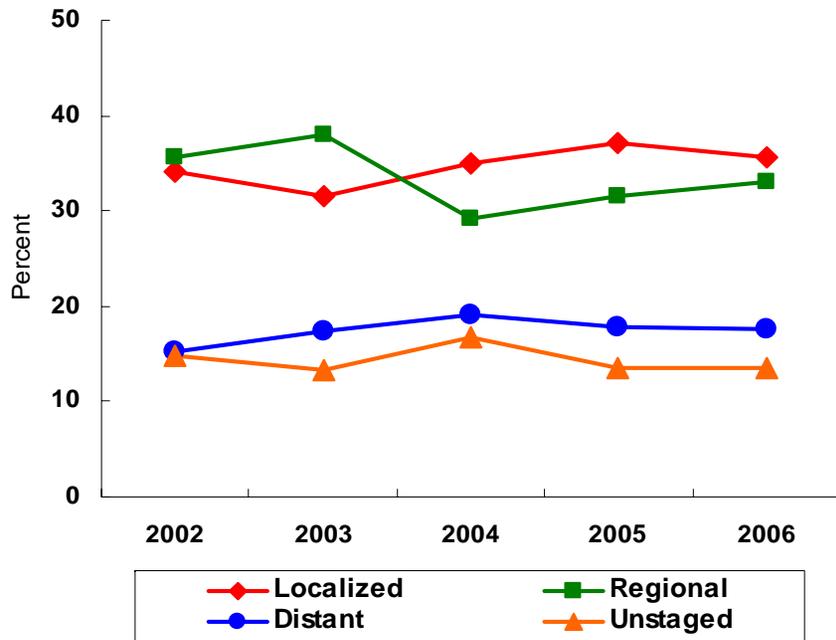
Rates are age-adjusted to 2000 U.S. standard population  
 Source: NCHS Compressed Mortality File in CDC WONDER

**Figure 5. Colorectal Cancer Mortality Rates Among Females by Race, Maryland and U.S., 1999-2006**



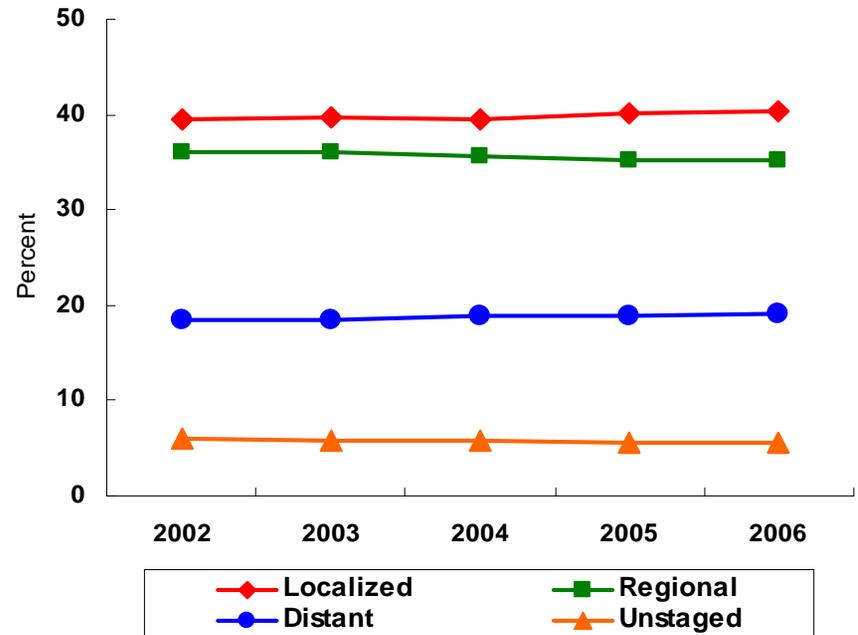
Rates are age-adjusted to 2000 U.S. standard population  
 Source: NCHS Compressed Mortality File in CDC WONDER

**Figure 6. Colorectal Cancer by Stage at Diagnosis  
Maryland, 2002-2006**



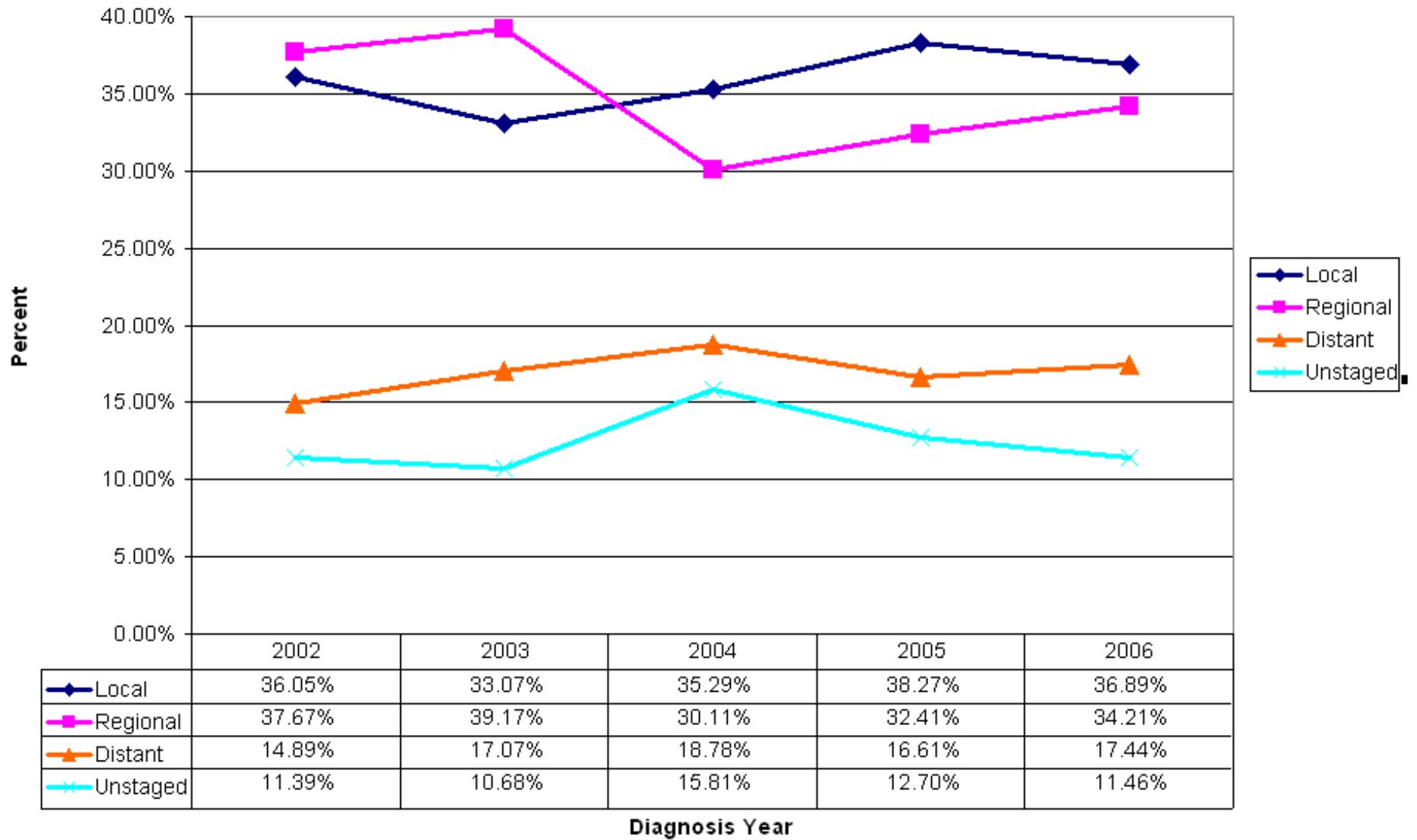
Maryland staging data from Maryland Cancer Registry, 2002-2006

**Figure 7. Colorectal Cancer by Stage at Diagnosis  
U.S., 2002-2006**

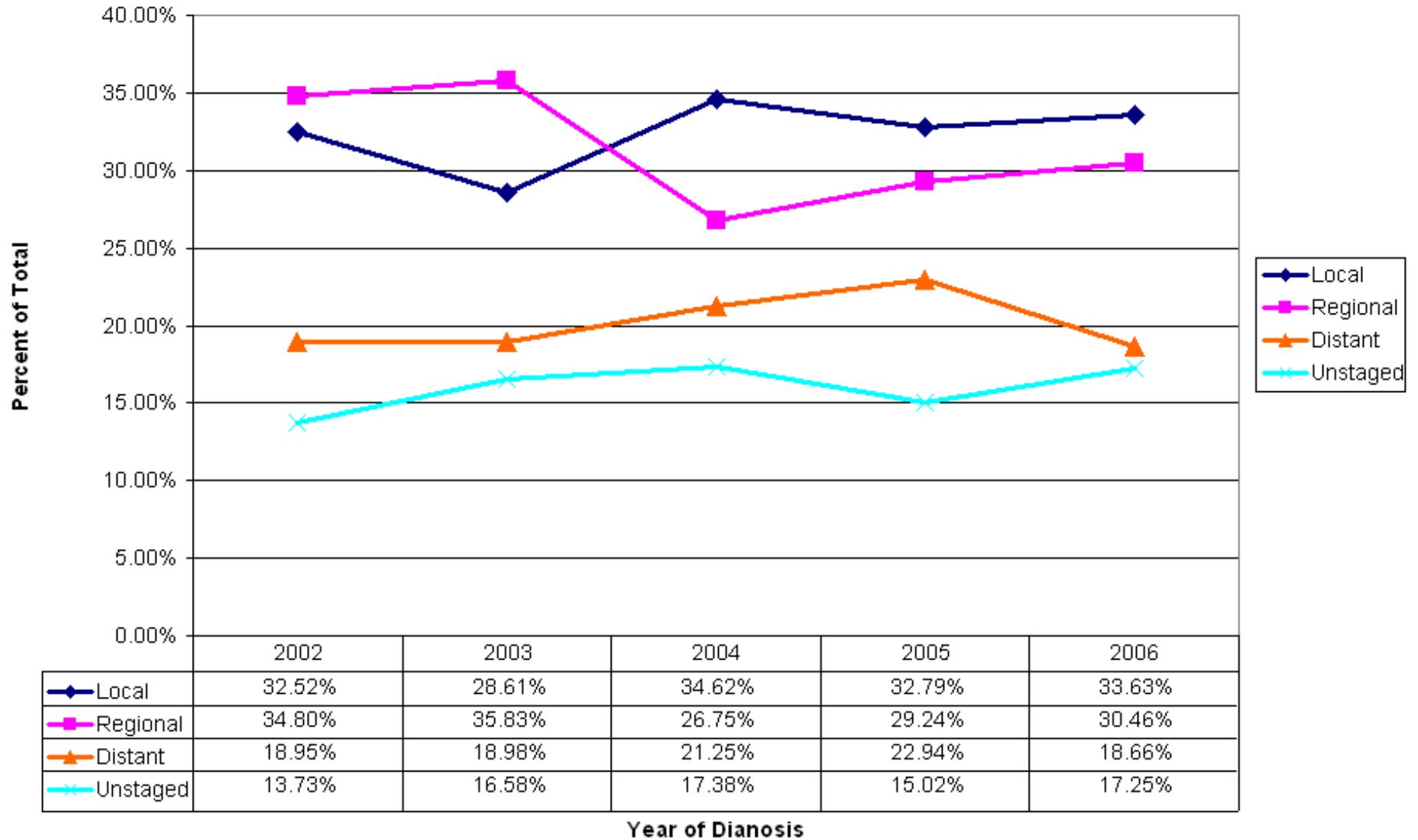


U.S. (SEER 17) staging data from NCI SEER\*Stat

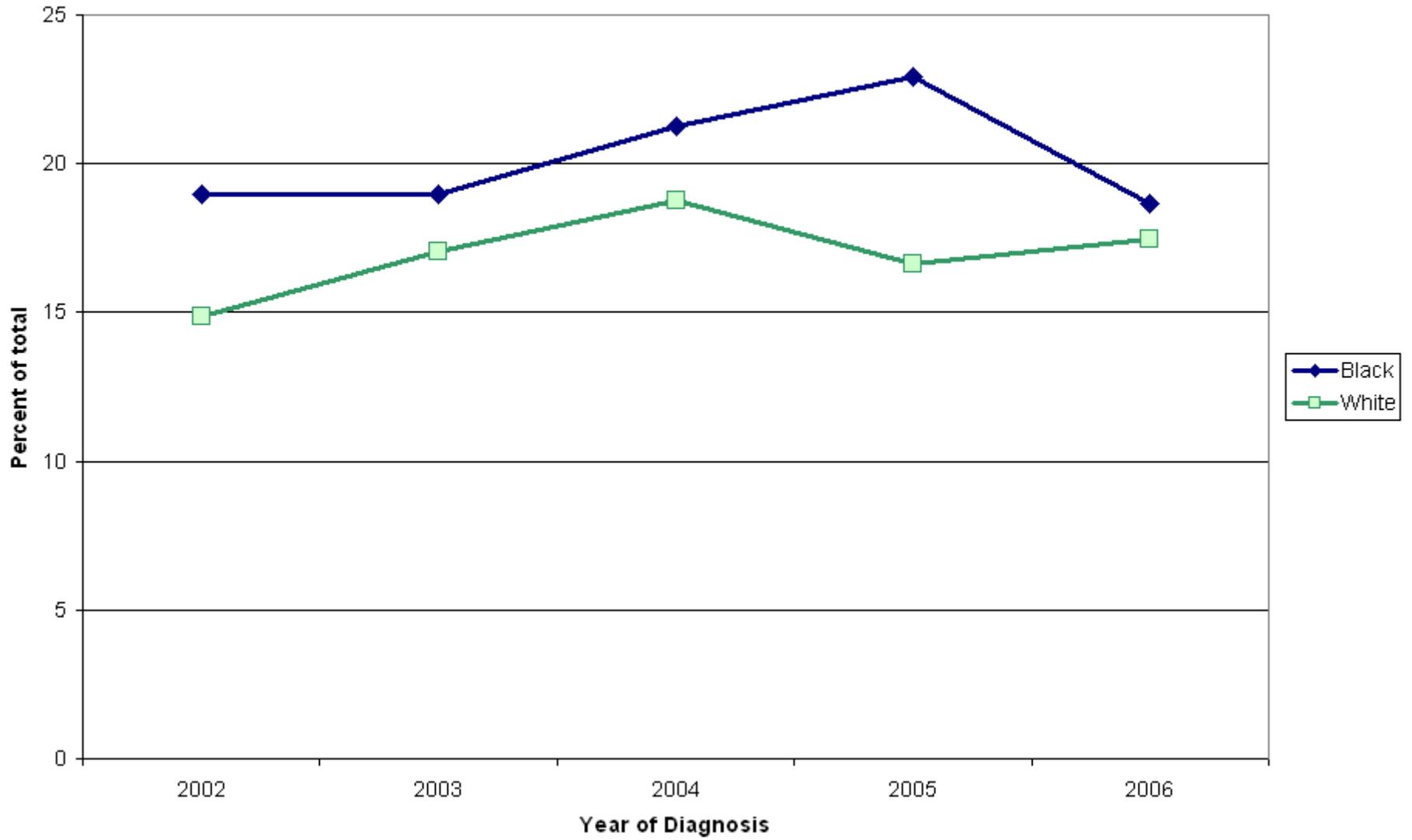
CRC--Percent Stage at Diagnosis, White Race, Maryland 2002-2006



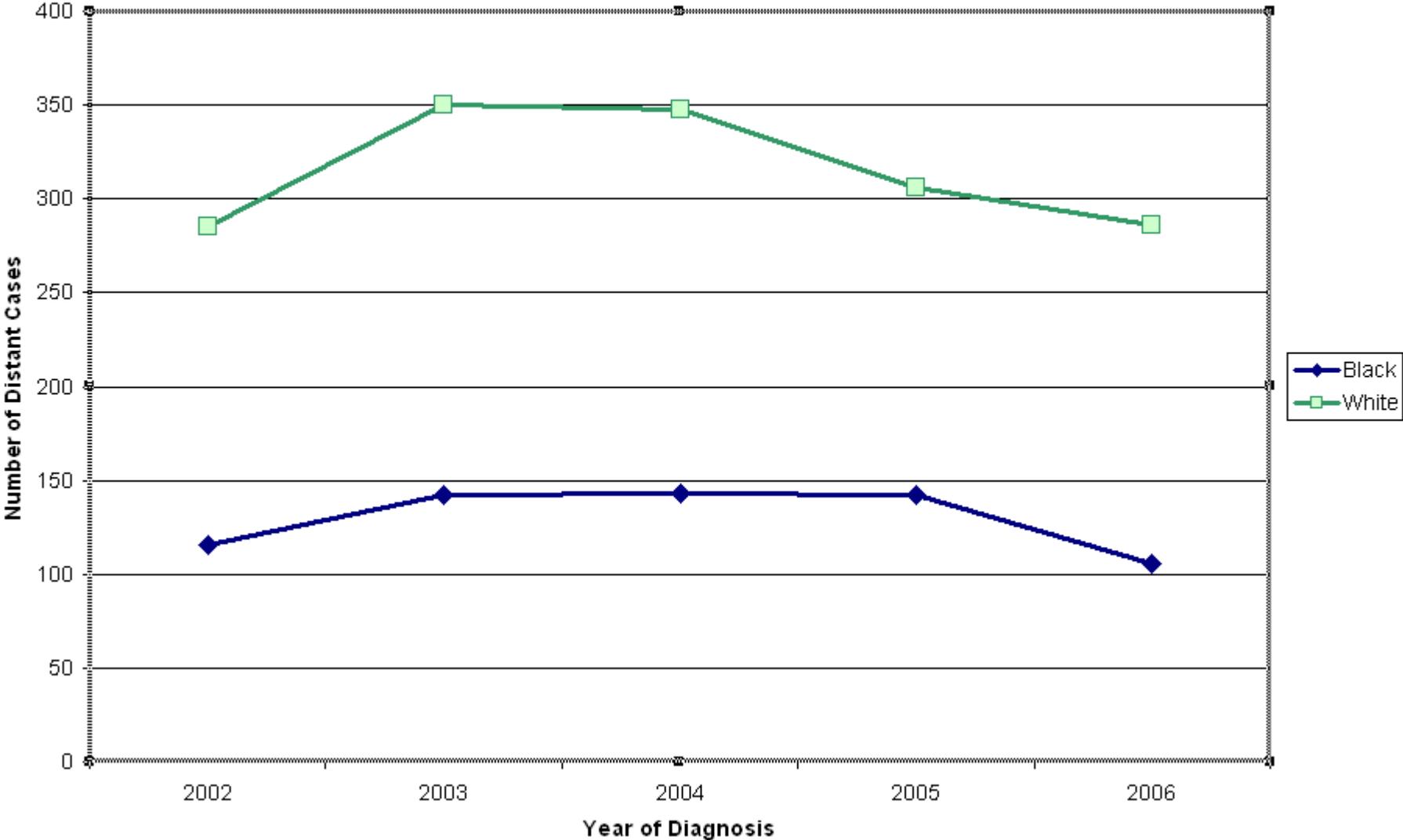
CRC--Percent Stage at Diagnosis, Black Race, Maryland 2002--2006



Colorectal Cancer--Percent Distant Stage by Race, Maryland 2002-2006



Number of Distant Stage Colorectal Cancer by Race, Maryland 2002--2006



## Colorectal Cancer Staging (Derived SS Stage 2000) by Reporting source, Maryland 2006

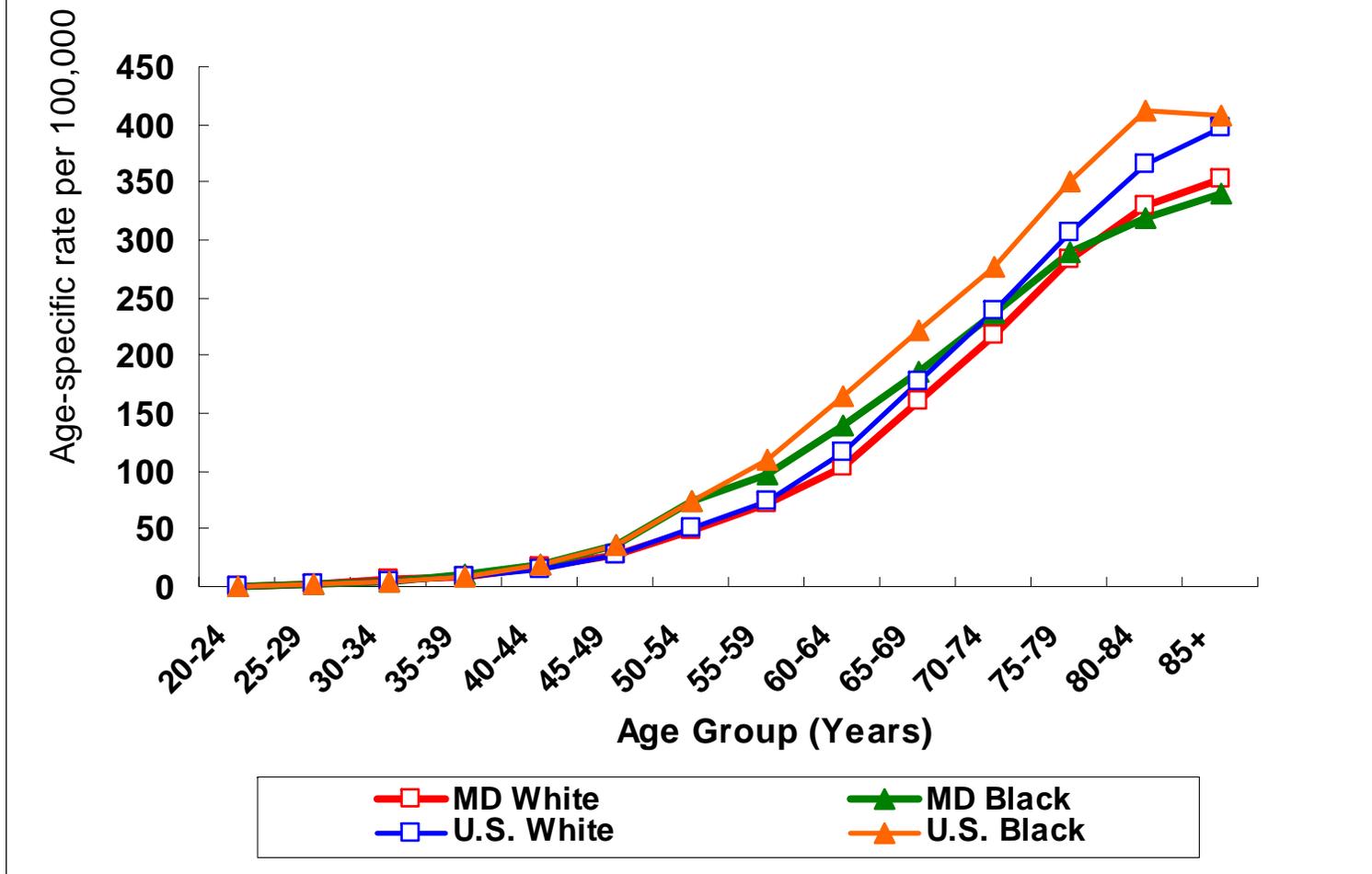
|   | Local        | Regional     | Distant      | Unknown/<br>unstaged |
|---|--------------|--------------|--------------|----------------------|
| Hospital inpatient/outpatient or<br>clinic              | 810          | 760          | 403          | 81                   |
| Laboratory only (hospital or<br>private)                | 10           | 0            | 0            | 99                   |
| Physicians office/private<br>medical practitioner (LMD) | 7            | 6            | 6            | 42                   |
| Death certificate only                                  | 0            | 0            | 0            | 83                   |
| Blank/Invalid Value                                     | 2            | 3            | 1            | 9                    |
| <b>Total</b>  | <b>829</b>   | <b>769</b>   | <b>410</b>   | <b>314</b>           |
| <b>Percent</b>  | <b>35.7%</b> | <b>33.1%</b> | <b>17.7%</b> | <b>13.5%*</b>        |

\*Goal: Unk/Unstaged <5% of total

## Unstaged Reported by Hospitals by County of Residence

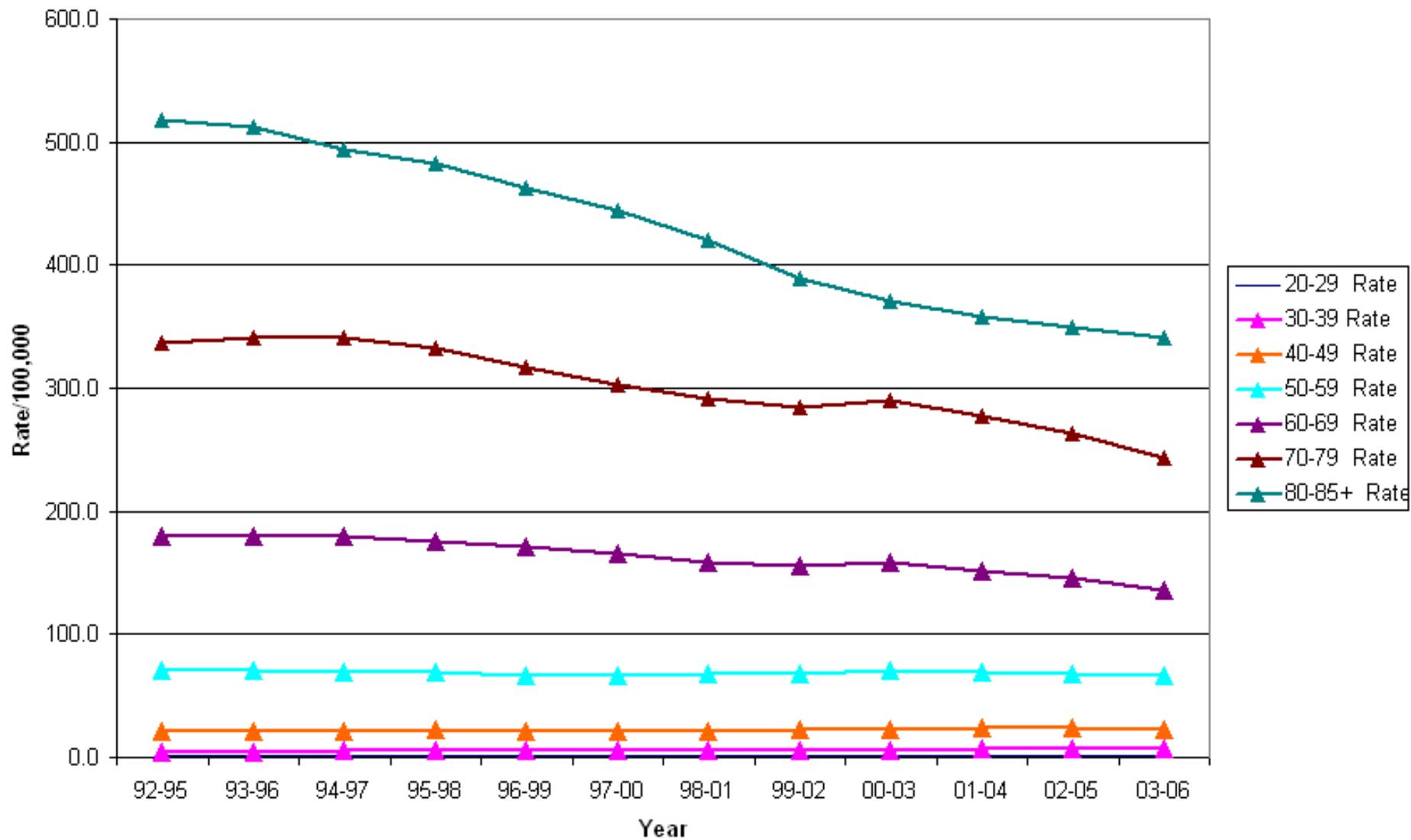
|                  | Hospital  |
|------------------|-----------|
| <b>Maryland</b>  | <b>81</b> |
| Allegany         | 4         |
| Anne Arundel     | 5         |
| Baltimore City   | 10        |
| Baltimore County | 11        |
| Calvert          | 1         |
| Caroline         | 2         |
| Carroll          | 6         |
| Cecil            | 2         |
| Charles          | 0         |
| Dorchester       | 0         |
| Frederick        | 2         |
| Garrett          | 0         |
| Harford          | 5         |
| Howard           | 3         |
| Kent             | 2         |
| Montgomery       | 6         |
| Prince George*s  | 11        |
| Queen Anne*s     | 3         |
| St Mary*s        | 3         |
| Somerset         | 1         |
| Talbot           | 2         |
| Washington       | 0         |
| Wicomico         | 0         |
| Worcester        | 2         |

**Figure 8. Colorectal Cancer Age-Specific Incidence Rates by Race, Maryland and U.S., 2002-2006**



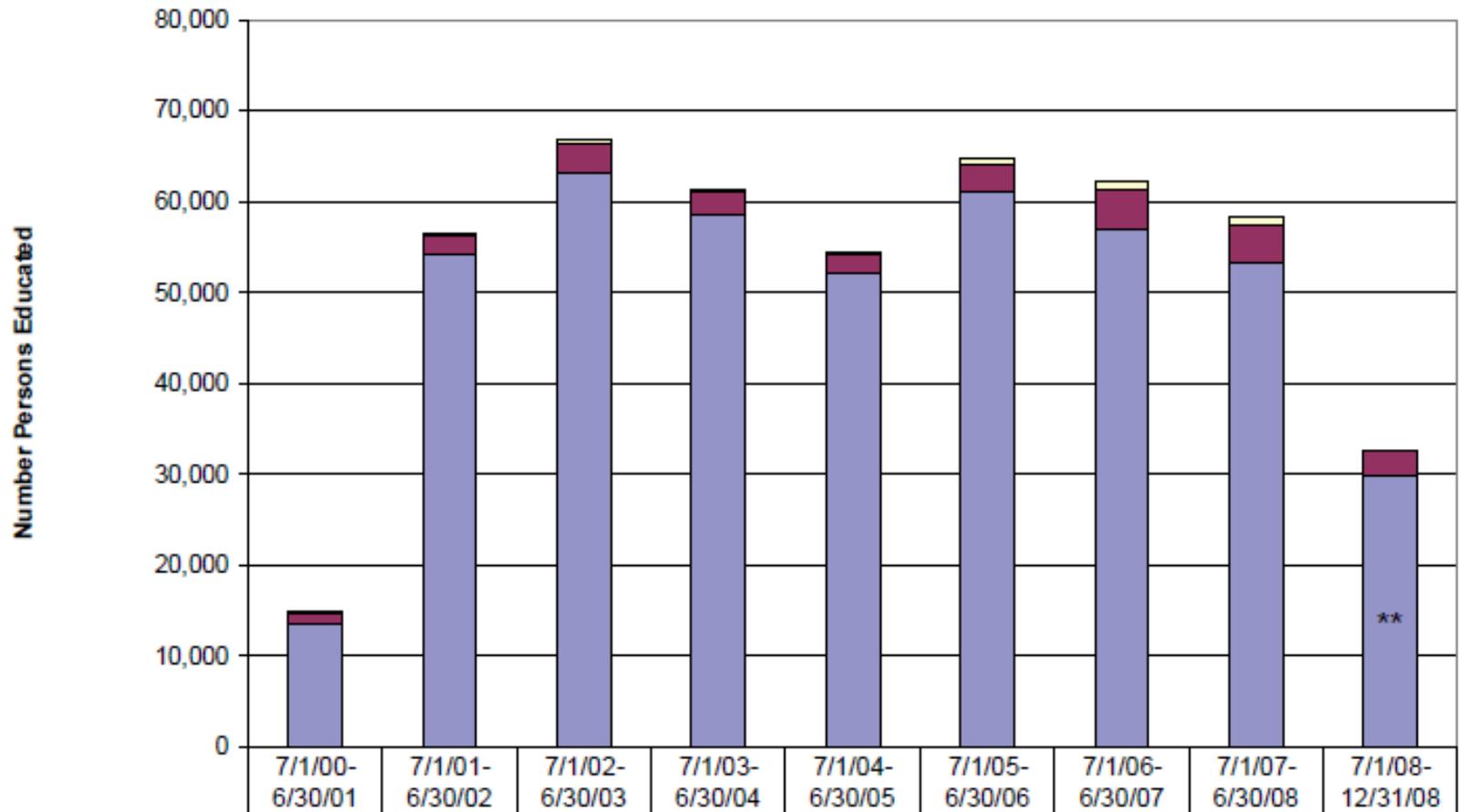
Maryland rates from Maryland Cancer Registry, 2002-2006  
 U.S. (SEER 17) rates from NCI SEER\*Stat

4 Year Rolling Average Colorectal Cancer Age-specific Rates  
All Races, MD 1992-2006



# CRC Education

**Maryland Cigarette Restitution Fund CPEST Program  
Persons Educated in Group, Brief, and Individual Sessions (Form 1) - Colorectal Cancer  
Number Educated by Type of Audience and Fiscal Year\*^**



|                           |        |        |        |        |        |        |        |        |        |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Trainers/Educators        | 56     | 218    | 462    | 222    | 189    | 726    | 1,036  | 878    | 34     |
| Health Care Professionals | 1,136  | 1,973  | 3,175  | 2,589  | 2,150  | 3,096  | 4,213  | 4,258  | 2,748  |
| General Public            | 13,568 | 54,229 | 63,260 | 58,600 | 52,065 | 61,023 | 57,033 | 53,187 | 29,867 |

Date of Education Session

Number of people targeted or reached  
with education or outreach about CRC  
CRF Program, Maryland, 2000-2009\*

| Audience               | Individual/Group meetings, lectures | Media (mailings, flyers, print, TV...) impressions |
|------------------------|-------------------------------------|--|
| General Public         | 478,489                             | 157,050,094  |
| Providers              | 28,509                              | 235,338  |
| Trainers/<br>Educators | 4,259                               | 143,522  |
| <b>Total</b>           | <b>511,257</b>                      | <b>157,428,954</b>                                 |

\* As of August 27, 2009

# Education Beyond CRF Program (and How to Measure?)

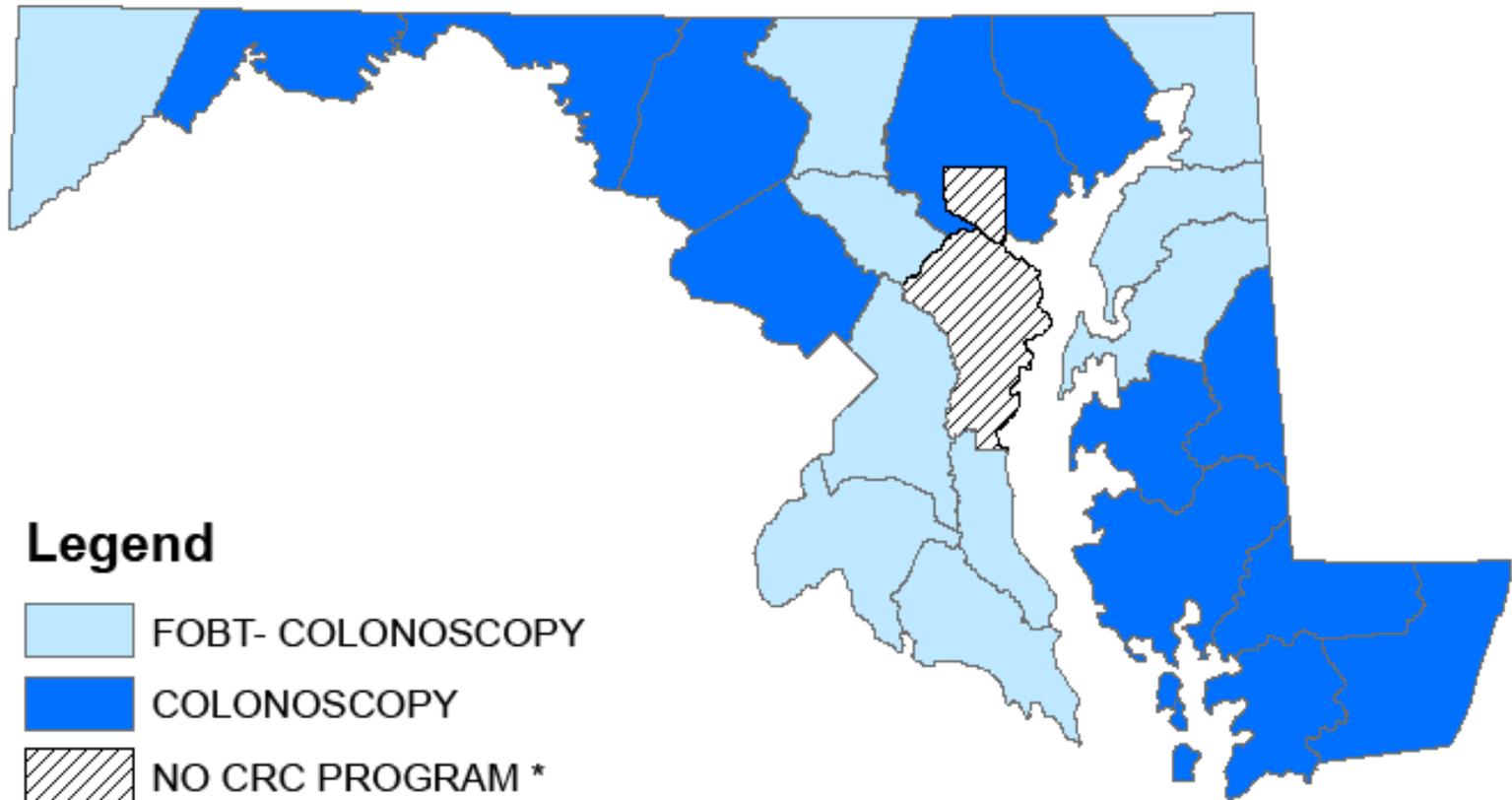
- American Cancer Society
- CDC—Screen for Life
- Katie Couric
- Others...

# CRC Screening





Colorectal Cancer Screening for Average Risk Clients  
by Type of Initial Screening Test - FY 2004  
Cigarette Restitution Fund Program



\* Anne Arundel County did CRC education without screening from FY 2004 - FY 2007



# Summary of Public Health Colorectal Cancer Screening in Maryland\*

July, 2000—August 27, 2008:

**18,792** People have had one or more screening procedures

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**8,345** FOBTs (all income levels)

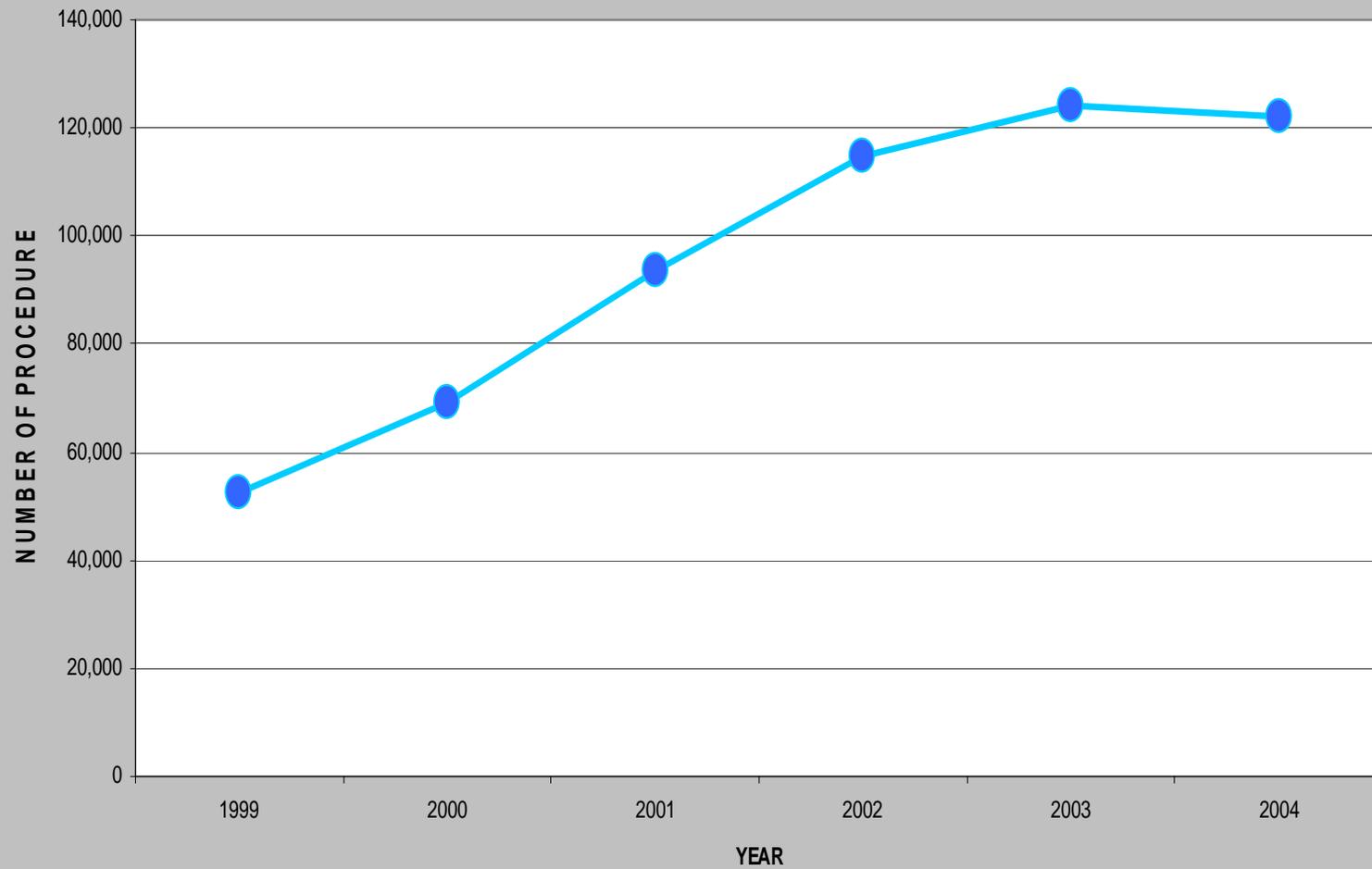
**158** Sigmoidoscopies

**15,546** Colonoscopies

\* Funded by Cigarette Restitution Fund, Centers for Disease Control, and Maryland Cancer Fund

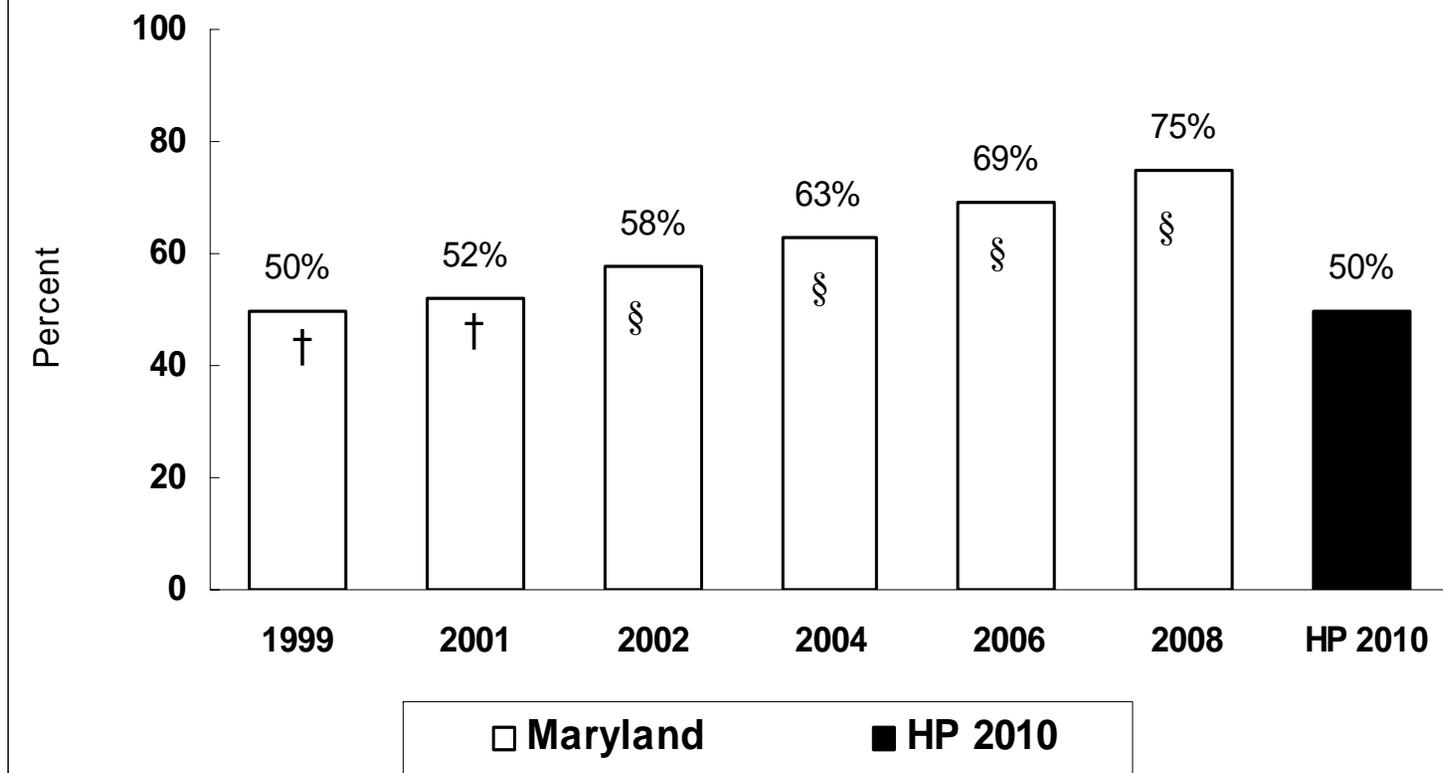
Source: DHMH, CCSC, Client Database (CDB), C-CoPD, as of 8/27/2009

## Number of Colonoscopies Billed for Unique Patients, Aged 50+ Maryland 1999-2004



Source: Maryland Health Care Commission

**Figure 10. Percentage of Maryland Adults Age 50 Years and Older Ever Having a Sigmoidoscopy or Colonoscopy Screening, Compared to Healthy People 2010 Target 1999-2008**

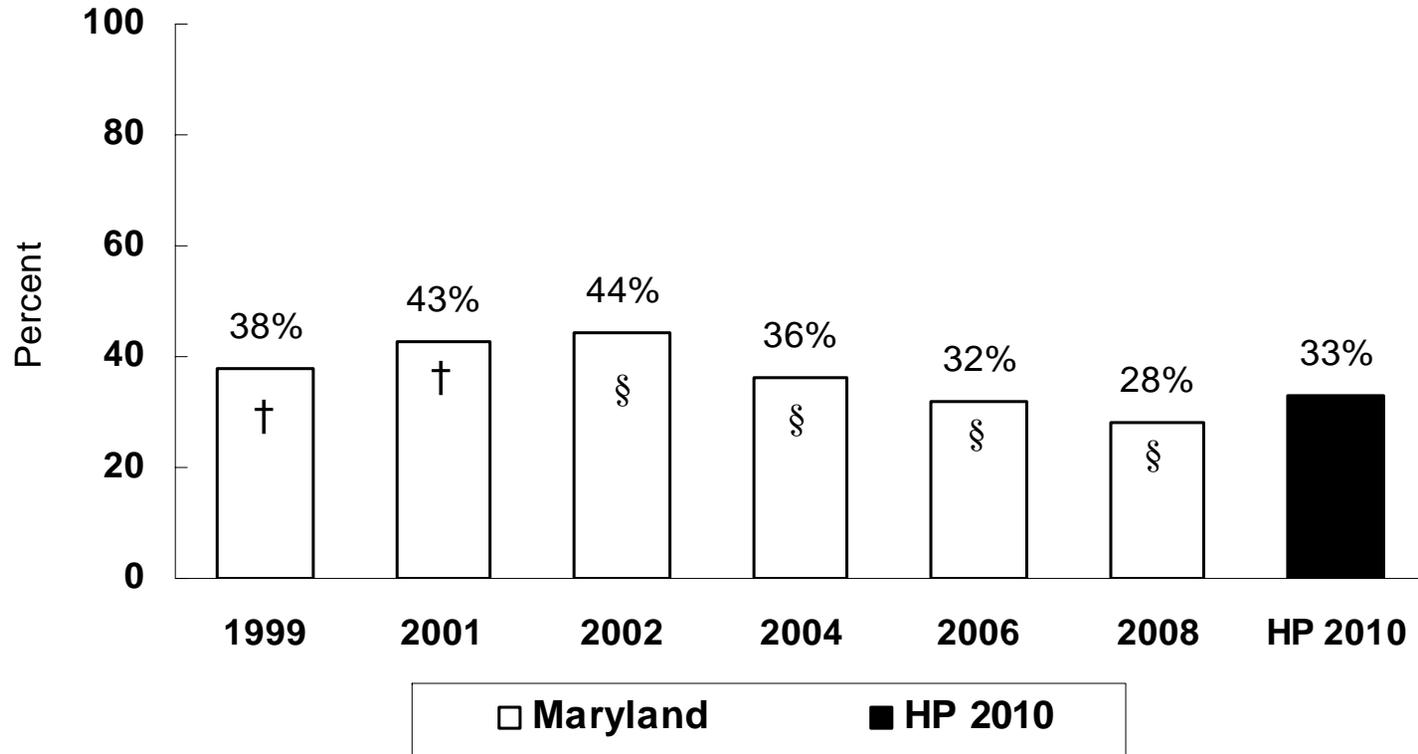


+ Maryland BRFSS, 1999, 2001

§ Maryland Cancer Survey, 2002, 2004, 2006, and 2008

Healthy People 2010, U.S. Department of Health and Human Services, 2000

**Figure 9. Percentage of Maryland Adults Age 50 Years and Older Having a Fecal Occult Blood Test within Past 2 Years, Compared to Healthy People 2010 Target 1999-2008**



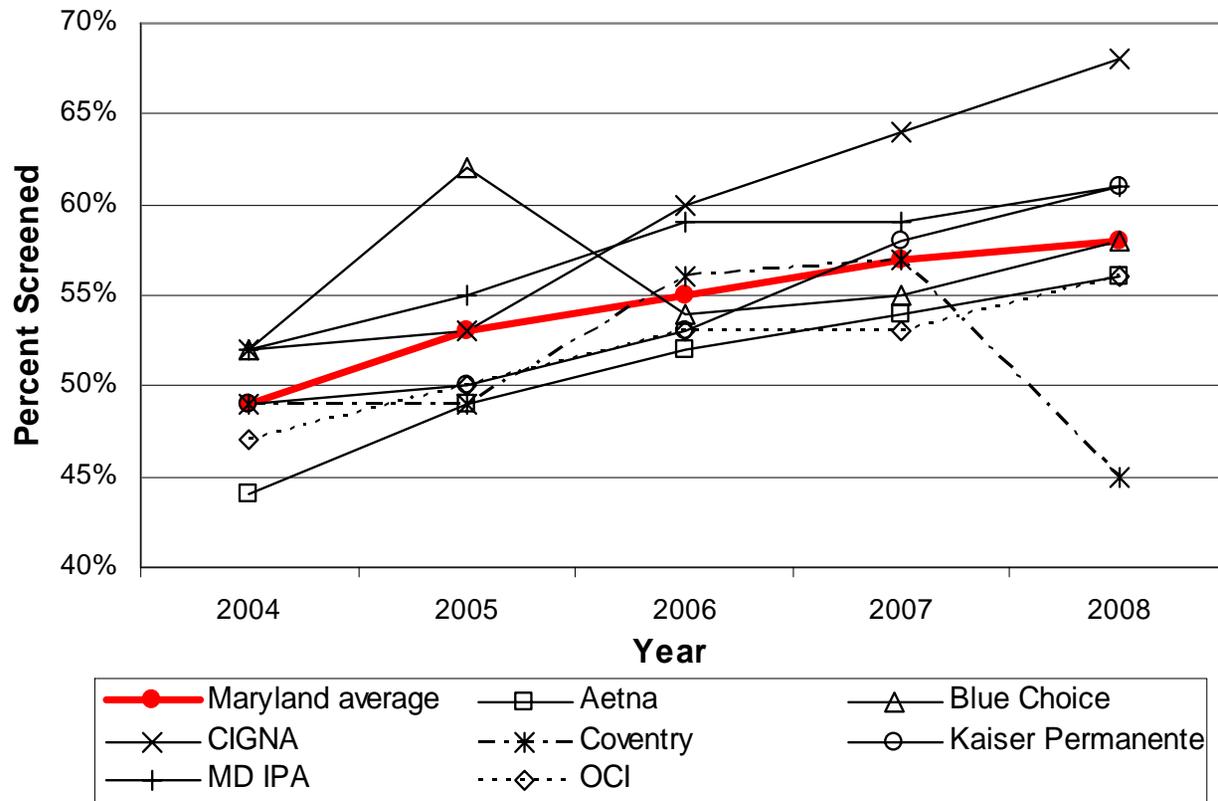
+ Maryland BRFSS, 1999, 2001

§ Maryland Cancer Survey, 2002, 2004, 2006, and 2008

Healthy People 2010 Midcourse Review, U.S. Department of Health and Human Services, 2006

# HEDIS Data

## CRC Screening Rates Among Maryland HMO/POS\* Providers

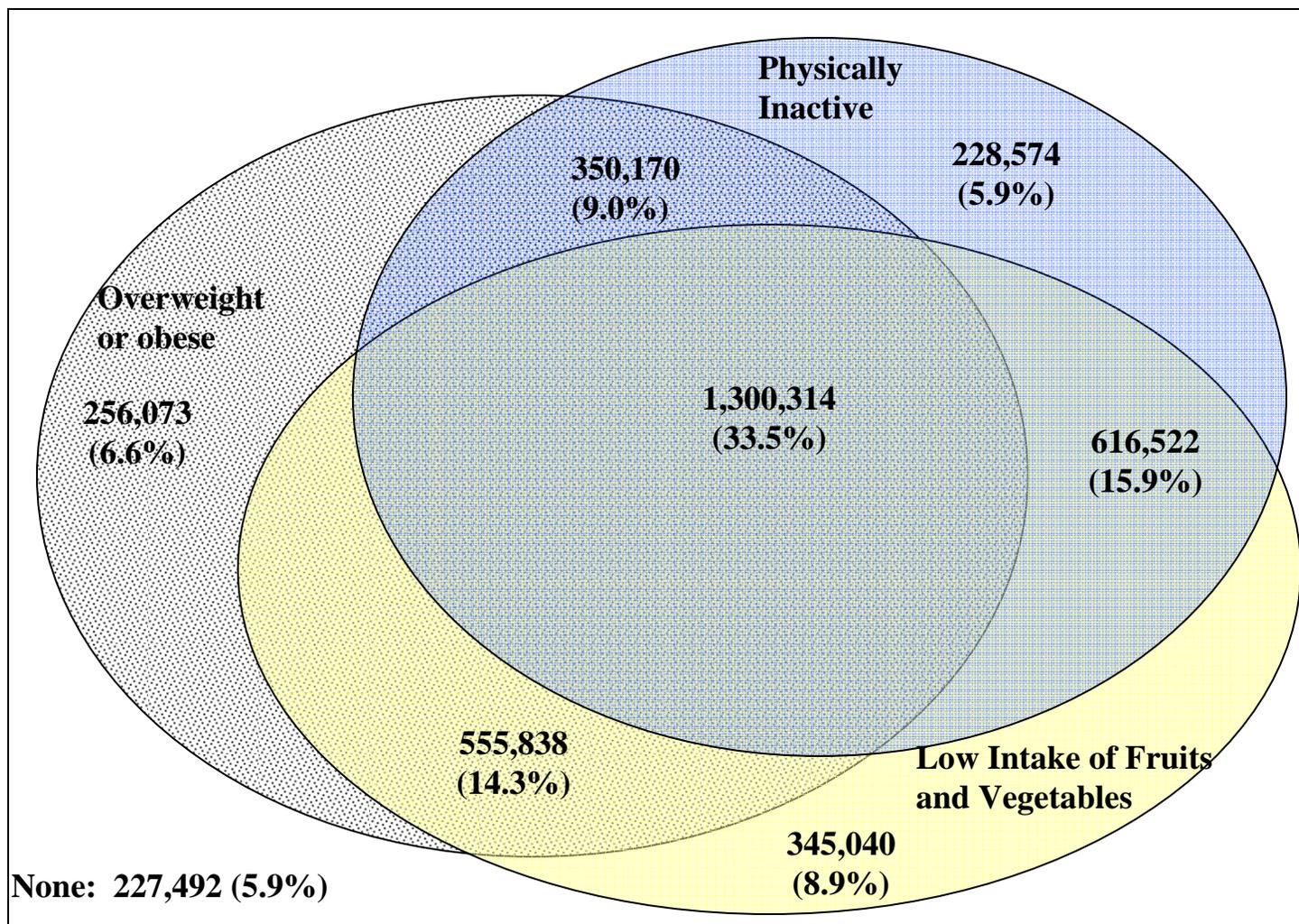


\* Health Maintenance Organization/Point of Service plan

Source: Maryland Health Care Commission, Health Plan Employer Data and Information Set (HEDIS),

2004-2008

# Low Intake of Fruits and Vegetables, Physical Inactivity, and Overweight/obesity: Weighted Percentages (2008)



Source: Maryland BRFSS, 2008—Physical Inactivity for Moderate Physical Activity

## Primary Prevention: Risk Factors for Cancer and Chronic Disease

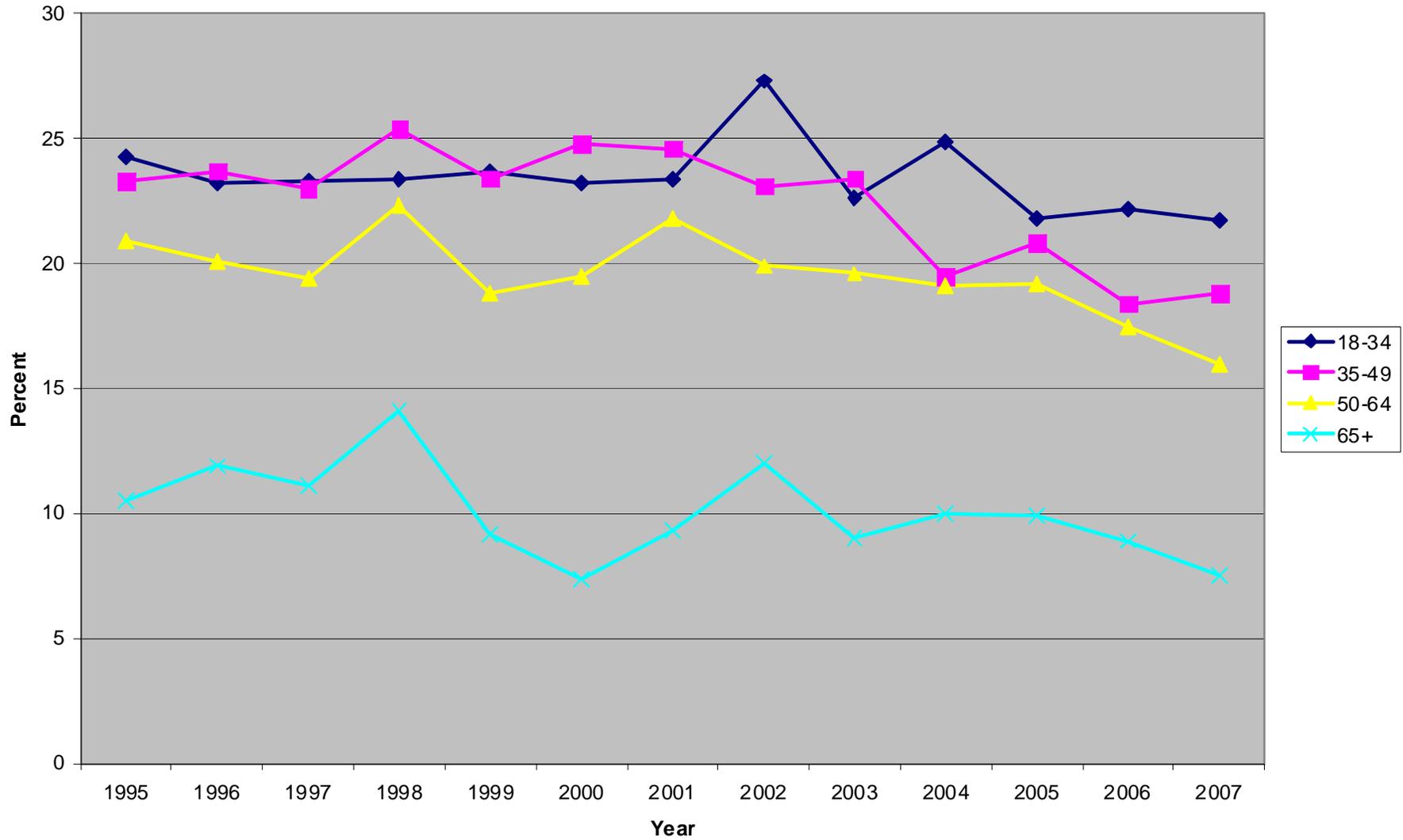
| Maryland BRFSS (Age 18+)                            |              |              |
|---|--------------|--------------|
|   | 2000         | 2008         |
| Low Physical Activity<br>(but...definition changed) | 77.4%        | 64.3%        |
| Low Fruits and Vegetables                           | 72.9%        | 72.6%        |
| Overweight or Obese                                 | 56.7%        | 63.5%        |
| None of these three                                 | 4.5%         | 5.9%         |
| Current Smoker                                      | 20.5%        | 14.9%        |
| Alcohol Consumption                                 | <b>2001:</b> | <b>2007:</b> |
| Chronic*  | 5.2%         | 4.3%         |
| Binge**   | 11.9%        | 12.6%        |

| Maryland Cancer Survey (Age 40+)                     |             |             |
|--|-------------|-------------|
|  | 2002        | 2008        |
| Current Smoker                                       | 18%         | 15%         |
| Red Meat Consumption<br>(At least one serving daily) | <b>2004</b> | <b>2008</b> |
|  | 24%         | 33%         |

\*Men: more than 2 drinks per day; Women: more than 1 drink per day

\*\*Five or more drinks on one occasion in the past month

Percent Current Smokers\* in Maryland by Age and Year (1995 - 2007)



\* SMOKED AT LEAST 100 CIGARETTES IN THEIR LIFETIME AND CURRENTLY SMOKE

SOURCE: MARYLAND BRFSS