

Implementation of a Hospital-Based Lung Cancer Screening Program

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Maryland Overview



I'M SENDING CHESTERFIELDS to all my friends.
That's the merriest Christmas any smoker can have —
Chesterfield mildness plus no unpleasant after-taste

Ronald Reagan

see RONALD REAGAN
starring in "HONG KONG" a Fine-
Thomas Paramount Production
Color by Technicolor



Why don't you settle back
and have a full-flavored smoke?

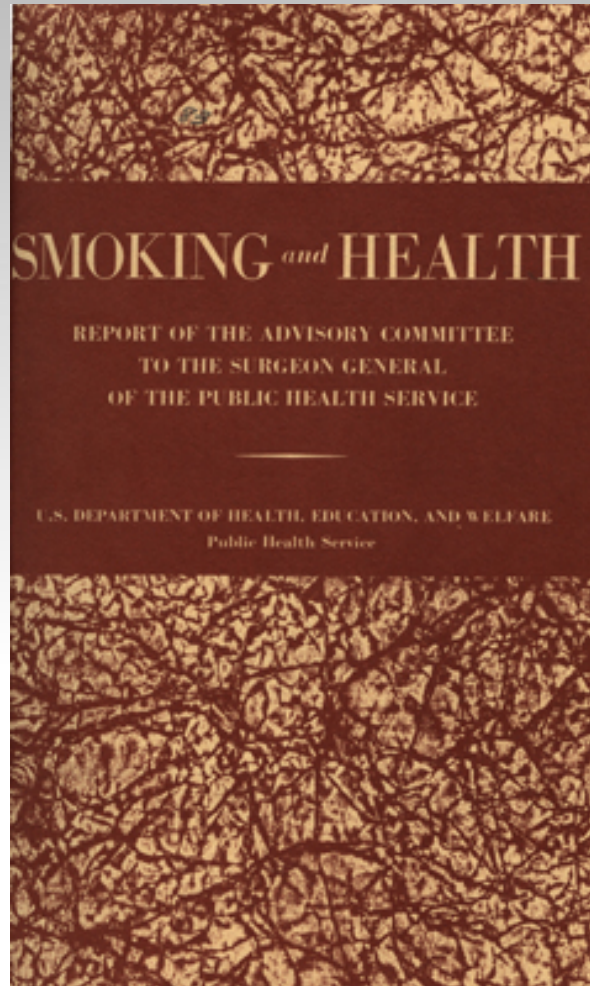
Marlboro
the filter cigarette
with the
unfiltered taste

Paul Hornung: Green Bay halfback
and 1961 National Football League
Player of the Year. Paul's a
Marlboro man all the way.



You get a lot to like—
Filter, Flavor, Pack or Box

Surgeon General Report - 1964





Why Should We Screen for Lung Cancer?

National Lung Screening Trial

2002-2009

- 53,454 participants
 - 55-74 years old
 - current or former smokers (quit \leq 15 years ago)
 - \geq 30 pack-years
- Randomized to initial enrollment screening exam either low-dose CT or CXR followed by two annual exams
 - CXR chosen as comparison group b/c of PLCO
- Study median follow-up 6.5 years



National Lung Screening Trial

2002-2009

- Major results
 - Mortality from **lung cancer** reduced by 20% with low-dose CT compared to CXR
 - Mortality from **any cause** reduced by 7% with low-dose CT



National Lung Screening Trial

2002-2009

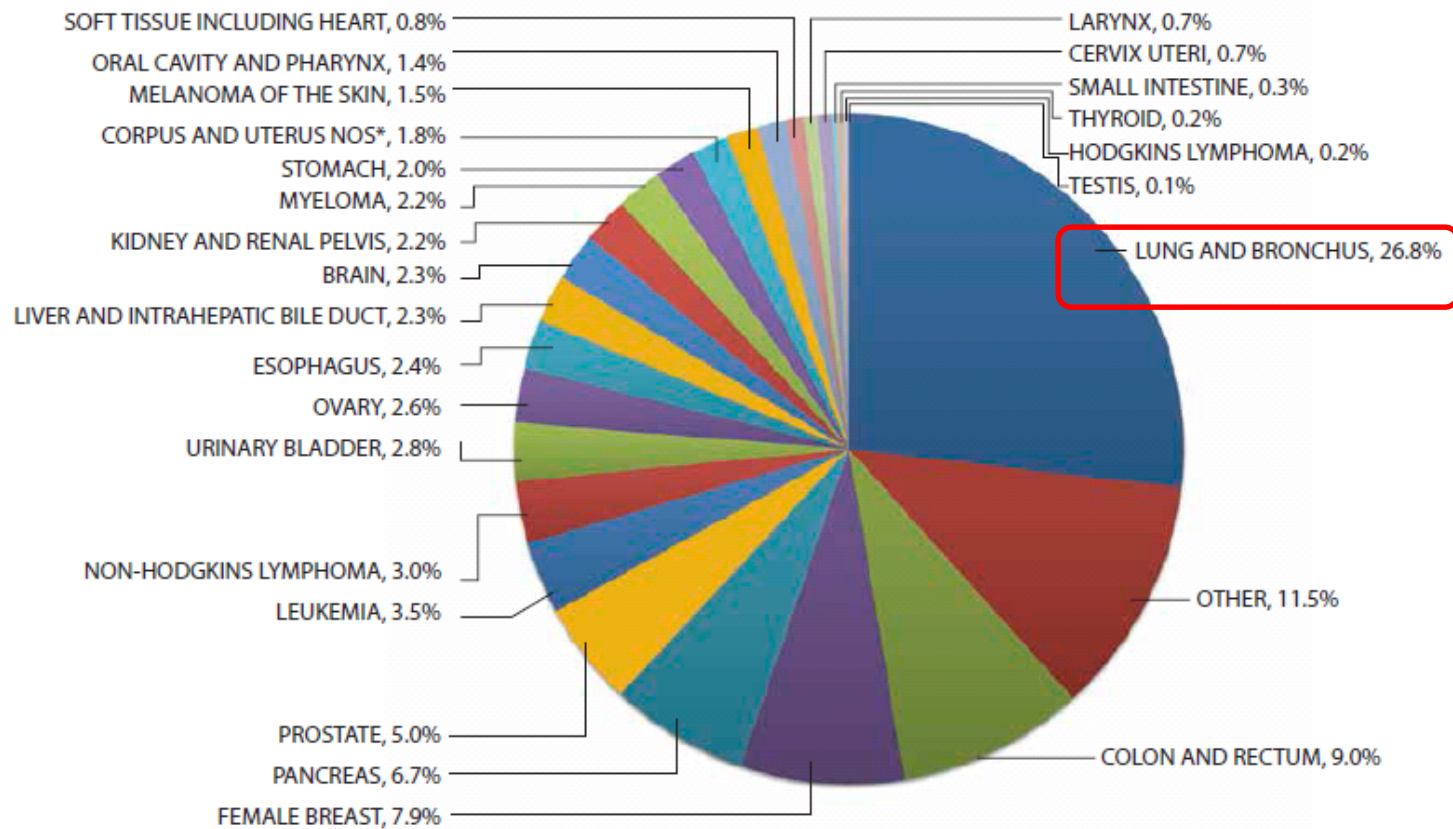
- Screening high-risk patients with annual LDCT reduces mortality from lung cancer
- Potential for immense public benefit
 - 94 million current or former US smokers
 - 7 million meet criteria for NLST inclusion



Why Should We Screen in Maryland?

FIGURE 2.3

Percentage of All Mortality Cancer Cases by Type of Cancer in Maryland, 2008-2012

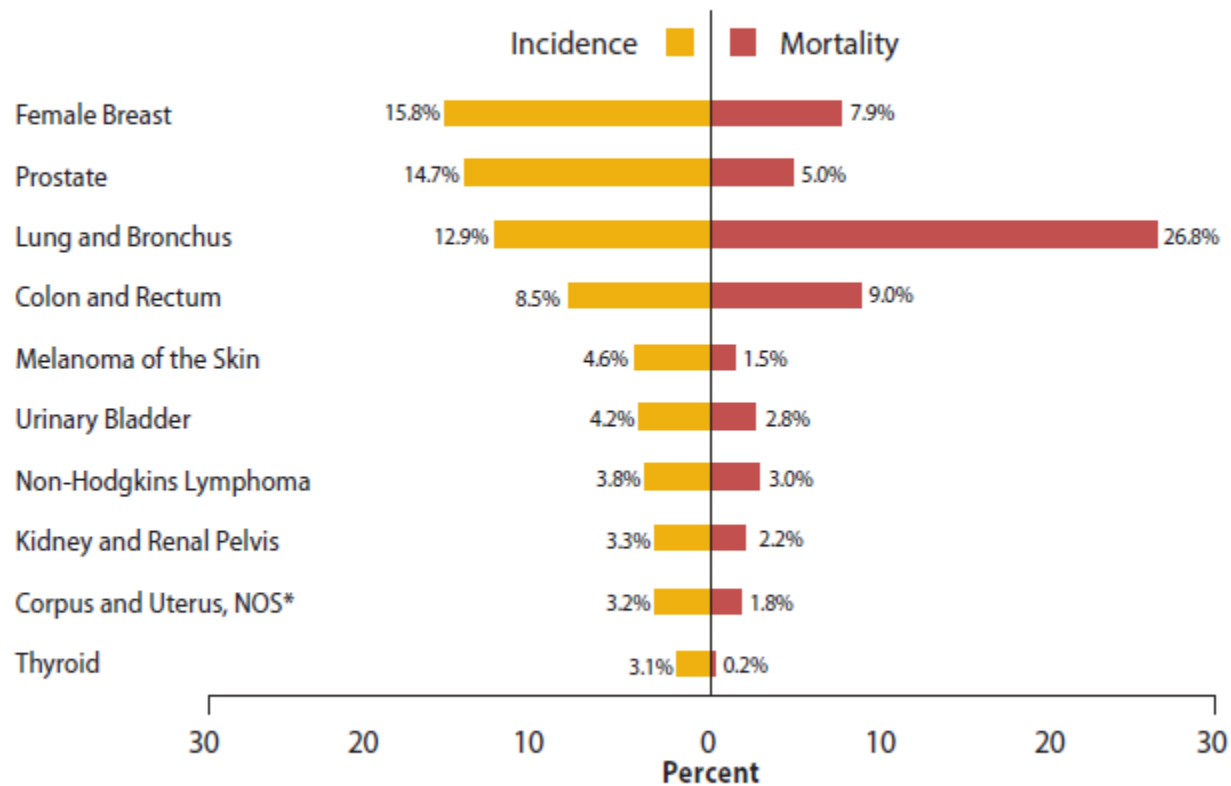


Source: NCHS Compressed Mortality File in CDC Wonder

*NOS is defined as Not Otherwise Specified

FIGURE 2.5

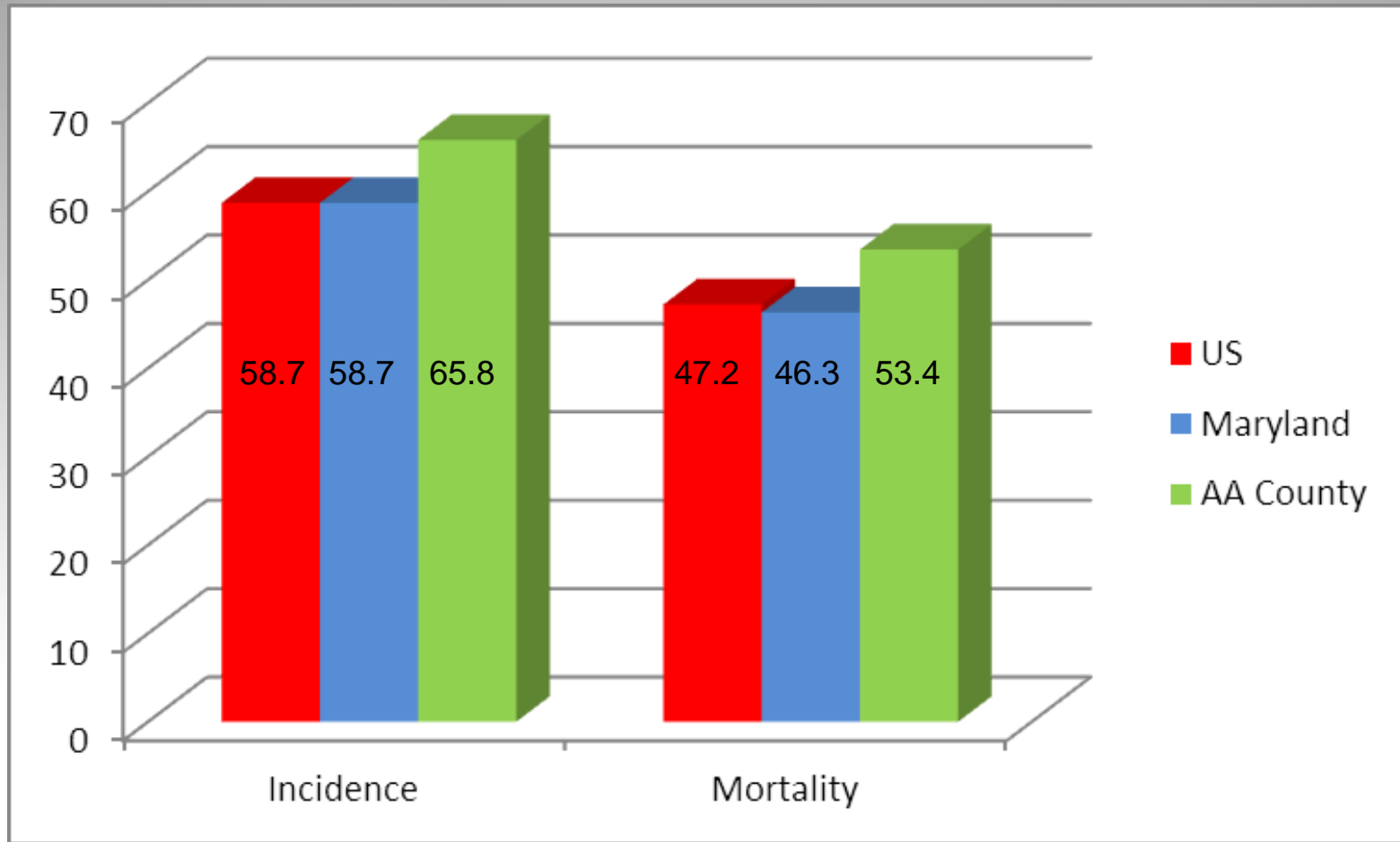
Percent of Incidence Cancer Cases and Deaths by Type of Cancer in Maryland, 2008-2012



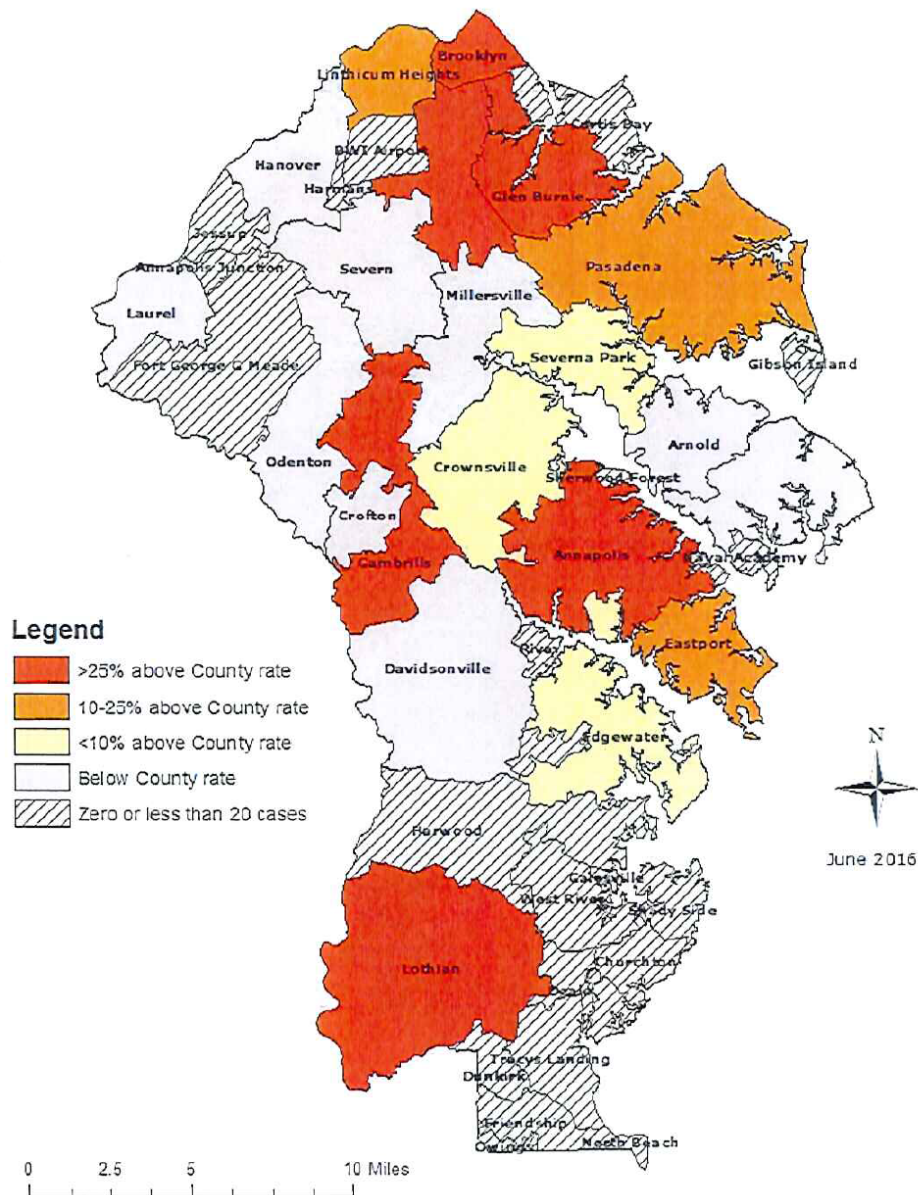
Sources: Maryland Cancer Registry, 2008 - 2012.
NCHS Compressed Mortality File in CDC Wonder

*NOS is defined as Not Otherwise Specified

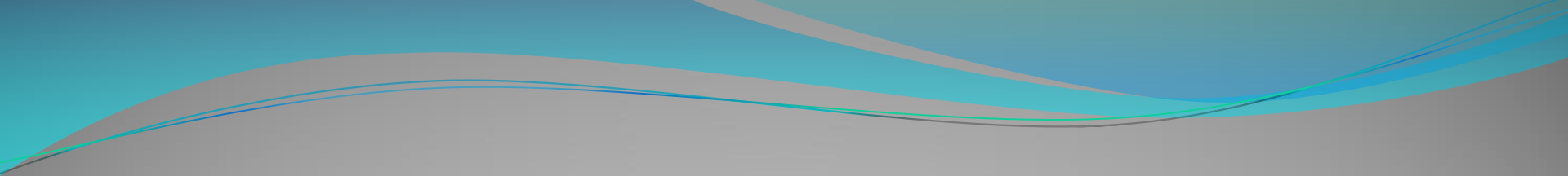
Lung and Bronchus Cancer Age-Adjusted Rates per 100,000 Population



Lung Cancer Crude Incidence Rate per 100,000 Population by ZIP Code, Anne Arundel County, 2008-2212



Data Source: Maryland Department of Health and Mental Hygiene, Maryland Cancer Registry, 2008-2012



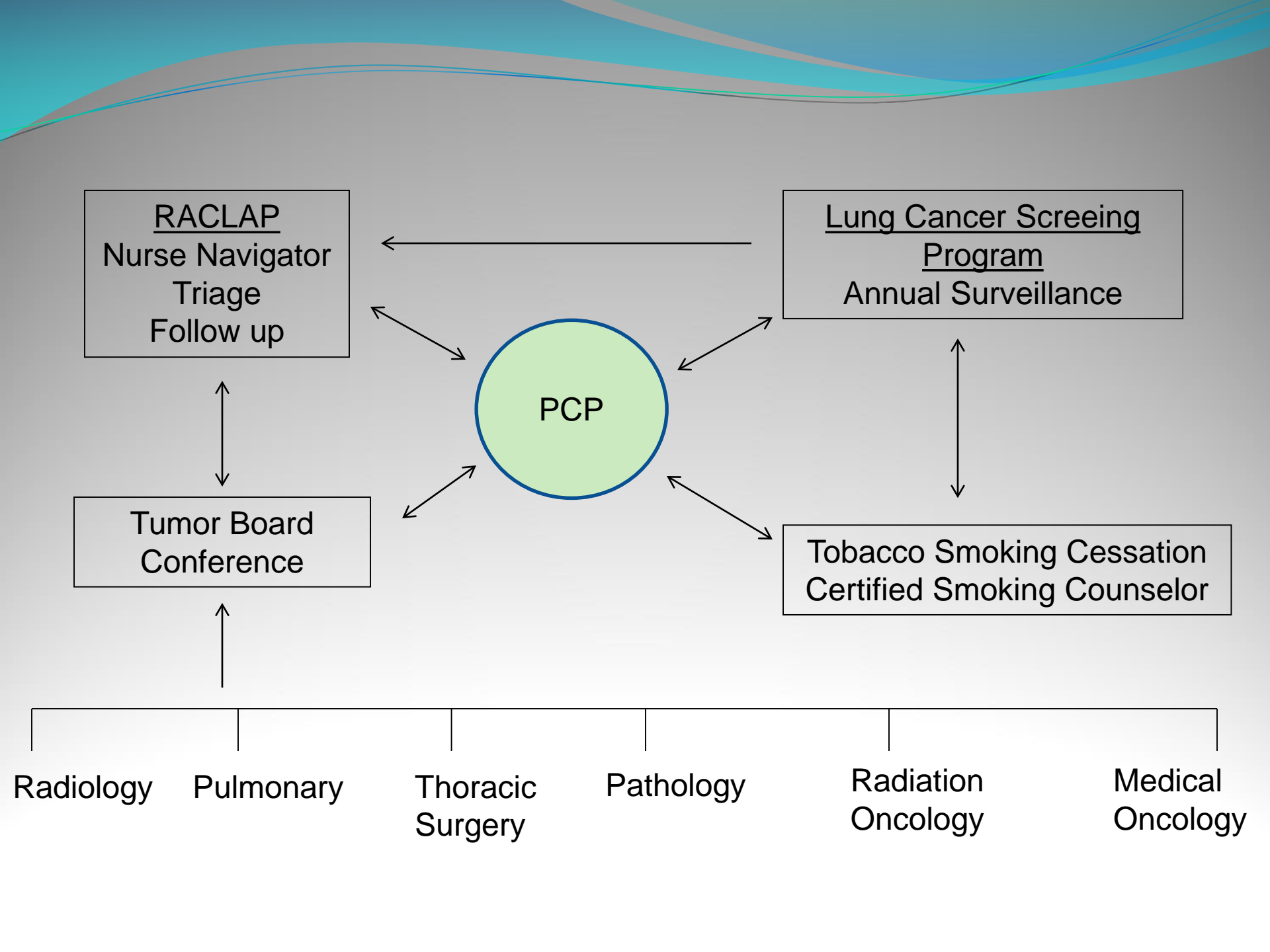
**Implementing A Lung
Screening Program at
Anne Arundel Medical Center**

AAMC Timeline

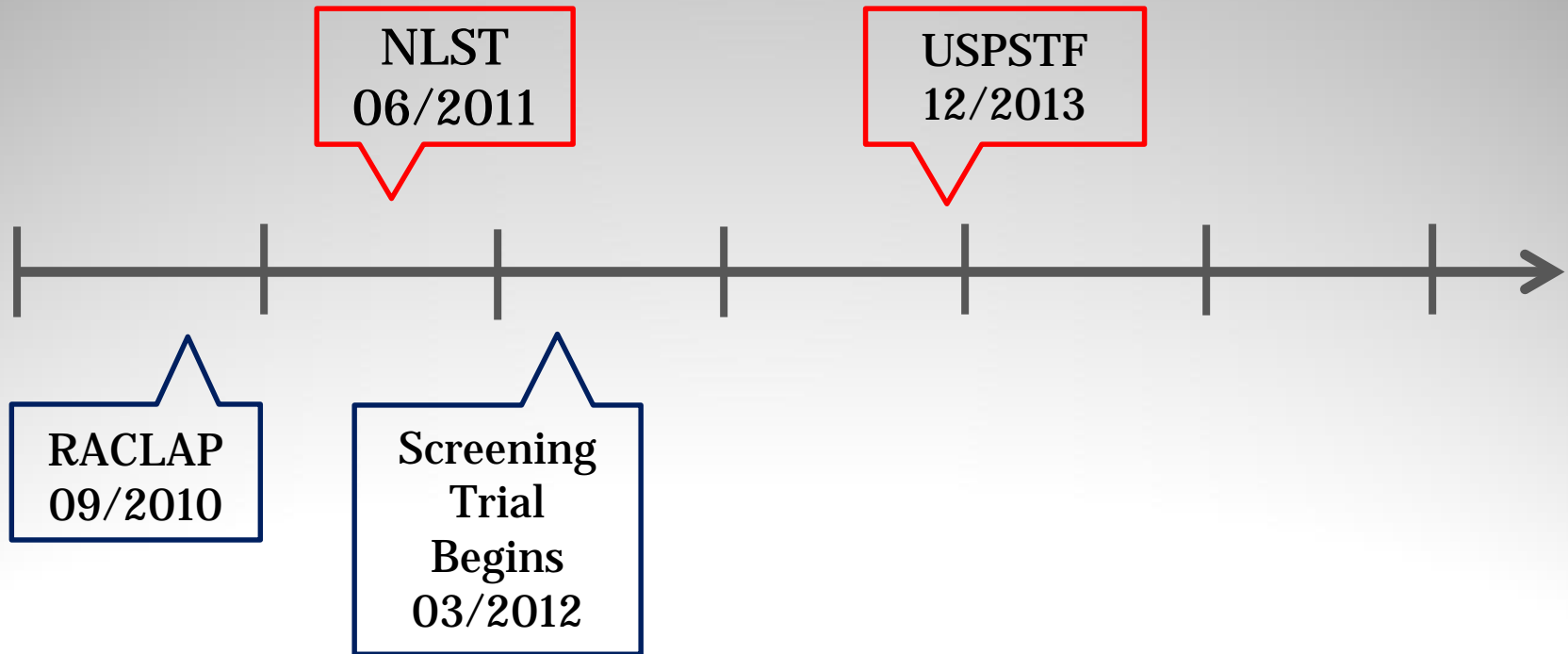


Rapid Access Chest and Lung Assessment Program (RACLAP)

- Mission: rapidly identify, evaluate, and manage patients with thoracic imaging abnormalities
- Goals:
 - Avoid unnecessary delay in evaluation/consultation
 - Avoid unnecessary procedures
 - Provide timely feedback to referring provider/PCP
- Comprehensive, multi-disciplinary program **critical** to achieving positive results of NLST



AAMC Timeline



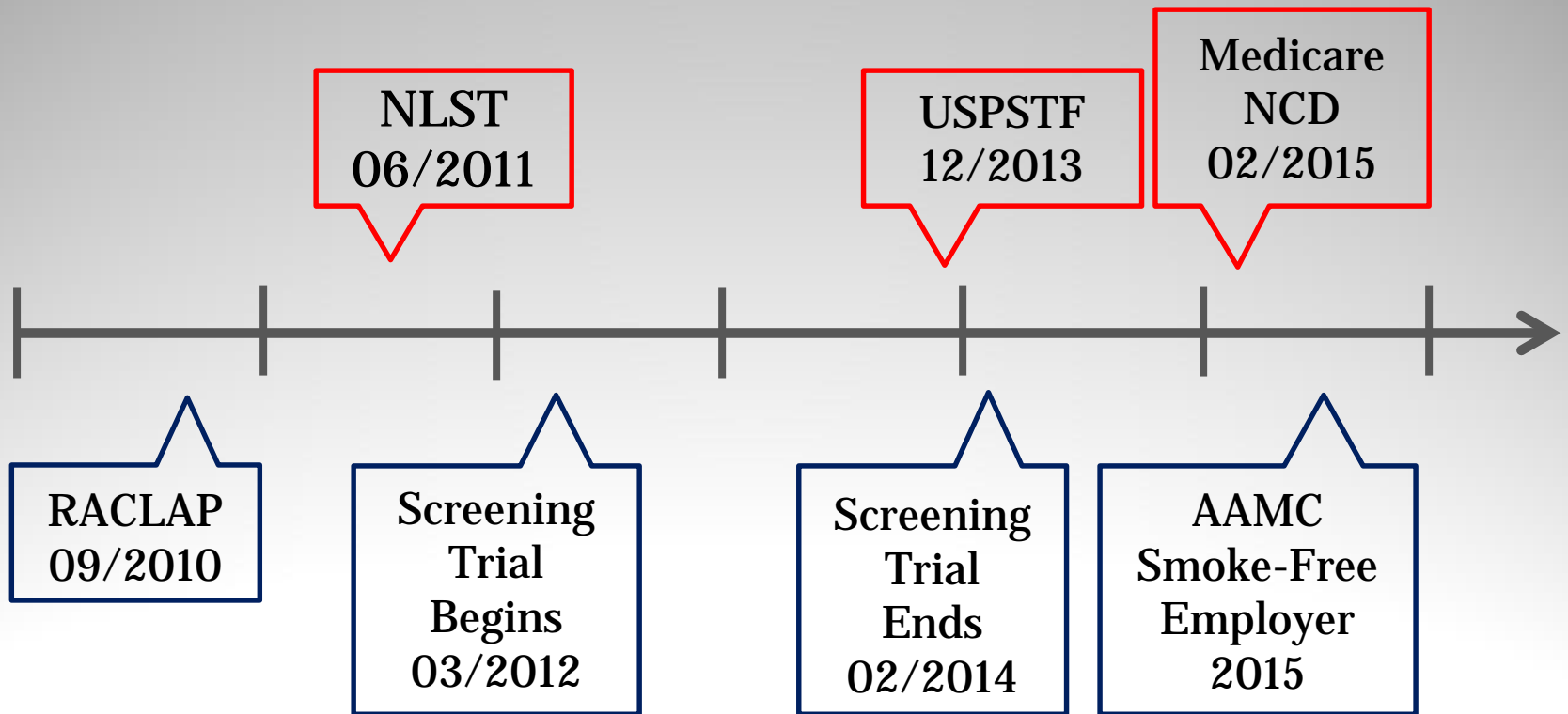
SCREENING FOR LUNG CANCER CLINICAL SUMMARY OF U.S. PREVENTIVE SERVICES TASK FORCE RECOMMENDATION

Population	Asymptomatic adults aged 55 to 80 y who have a 30 pack-year smoking history and currently smoke or have quit smoking within the past 15 y
Recommendation	Screen annually for lung cancer with low-dose computed tomography. Discontinue screening when the patient has not smoked for 15 y. Grade: B
Risk Assessment	Age, total cumulative exposure to tobacco smoke, and years since quitting smoking are the most important risk factors for lung cancer. Other risk factors include specific occupational exposures, radon exposure, family history, and history of pulmonary fibrosis or chronic obstructive lung disease.
Screening Tests	Low-dose computed tomography has high sensitivity and acceptable specificity for detecting lung cancer in high-risk persons and is the only currently recommended screening test for lung cancer.
Treatment	Non-small cell lung cancer is treated with surgical resection when possible and also with radiation and chemotherapy.
Balance of Benefits and Harms	Annual screening for lung cancer with low-dose computed tomography is of moderate net benefit in asymptomatic persons who are at high risk for lung cancer based on age, total cumulative exposure to tobacco smoke, and years since quitting smoking.
Other Relevant USPSTF Recommendations	The USPSTF has made recommendations on counseling and interventions to prevent tobacco use and tobacco-caused disease. These recommendations are available at www.uspreventiveservicestaskforce.org .

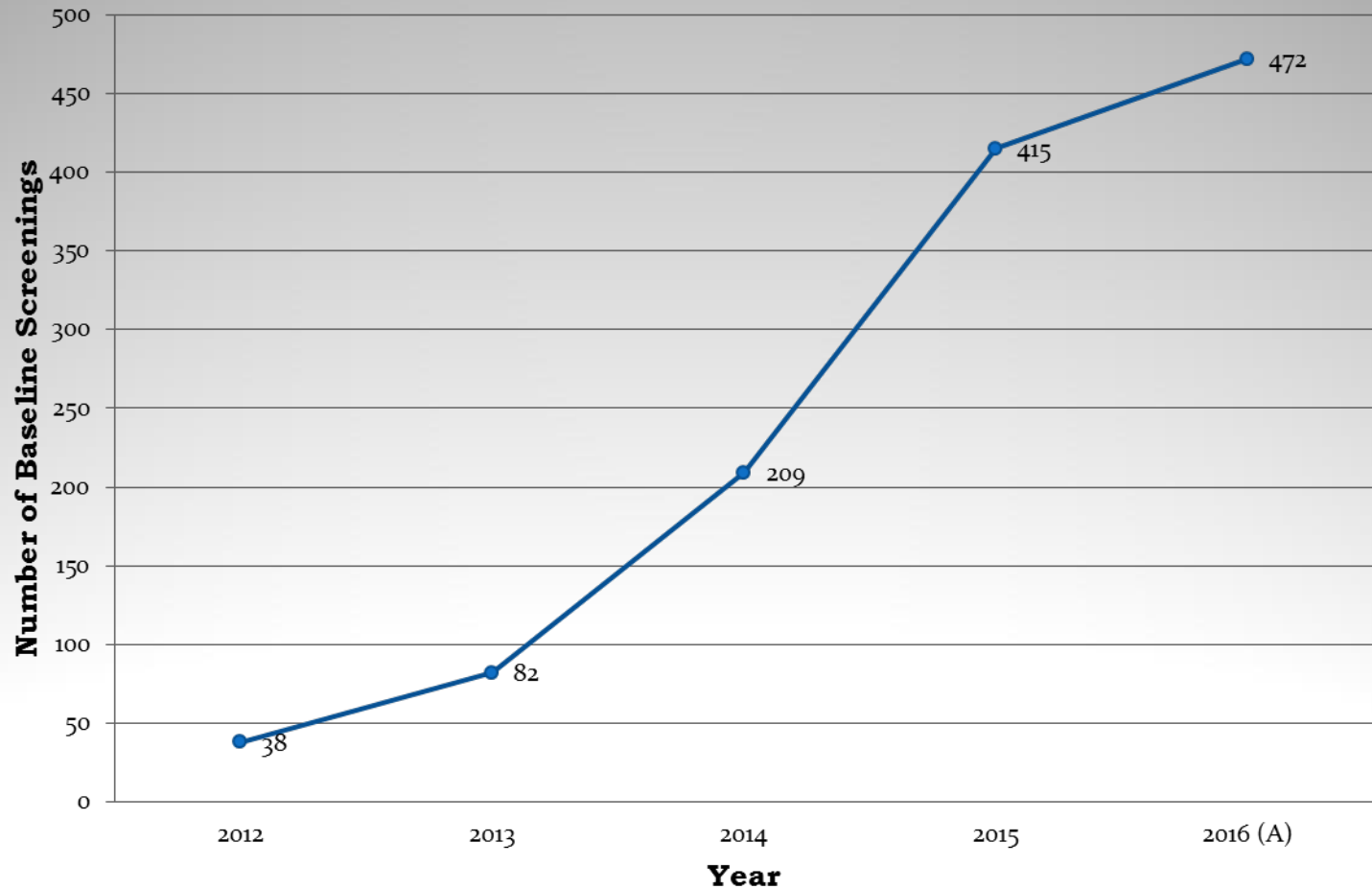
TABLE 2.2 Targeted Cancers - Screening Recommendations

Cancer Type	General Screening Population	Screening Test and Frequency of Screening	Special Screening Population	Screening Test and Frequency of Screening for Special Population	Additional Recommendations or Notes
Lung			Adults age 55 to 80 years with a 30 pack-year smoking history and currently smoke or have quit within the past 15 years	Low-dose Computed Tomography, annually	USPSTF published Dec 2013; Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery

AAMC Timeline



AAMC Lung Screening Program



Current Focus of the Lung Screening Program

- Increase awareness
 - Providers, employers, community
- Increase number of patients who return for subsequent scans
- Focus on the underserved community



Why Should We Focus on the Underserved for Lung Screening?

TABLE 2.4

Significant Health Disparities in Cancer by Race and Sex, Maryland, 2008 - 2012

CANCER TYPE	INCIDENCE RATES	MORTALITY RATES	RATE DIAGNOSED IN REGIONAL OR DISTANT STAGE**
Lung	White: 60.7	White Males: 56.3	White: 42.9
	Black: 57.3	Black Males: 65.0	Black: 39.5
	White Males: 68.0	White Females: 40.8	White Males: 48.7
	Black Males: 73.4	Black Females: 36.2	Black Males: 50.1
	White Females: 55.3		White Females: 38.6
	Black Females: 47.0		Black Females: 32.8

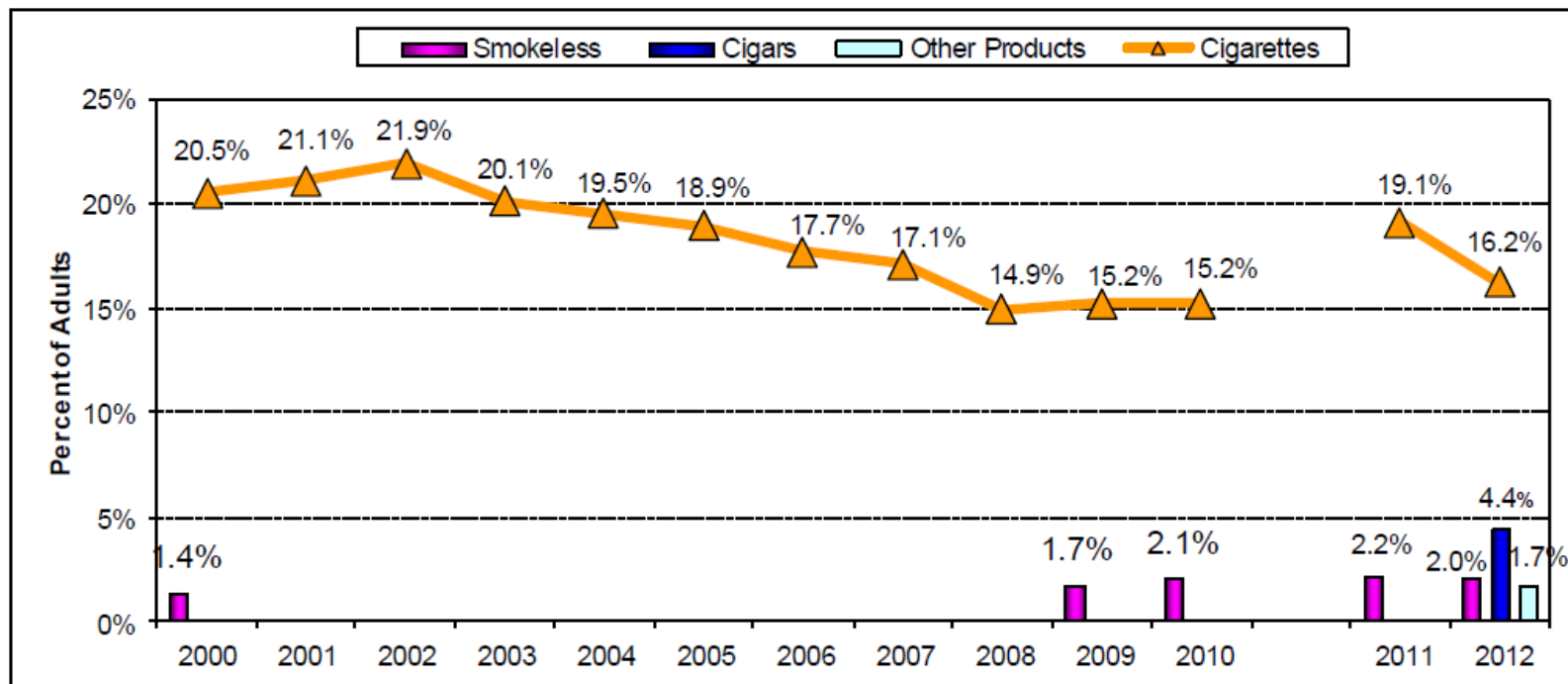
** Percentage of cancers diagnosed in regional or distant stages; applied to incidence rates

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

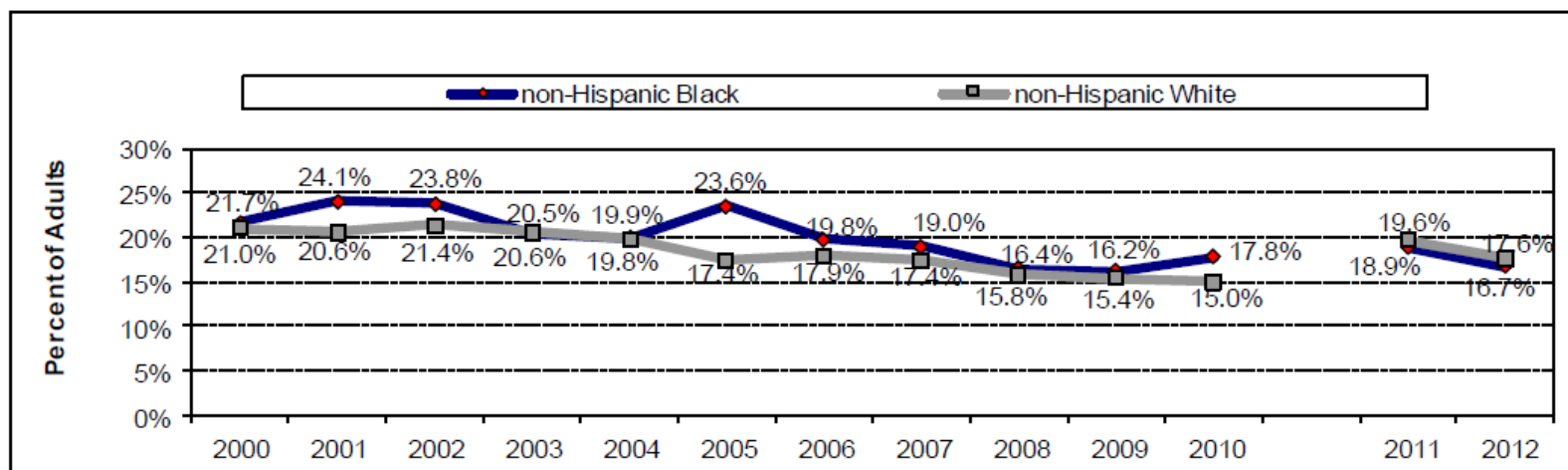
Sources: Maryland Cancer Registry, 2008 – 2012

NCHS Compressed Mortality File in CDC Wonder

Use of Tobacco Products Maryland Adults Ages 18 and Older, 2000–2012



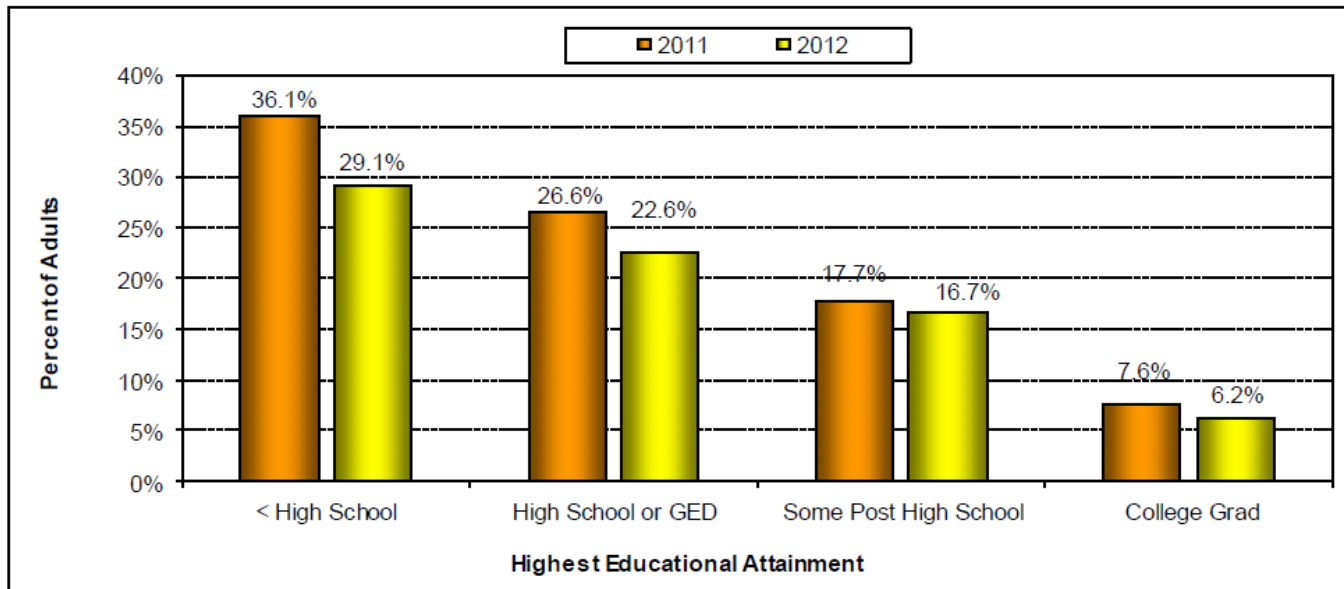
Maryland Adults Ages 18 and Older—by Race, 2000–2012



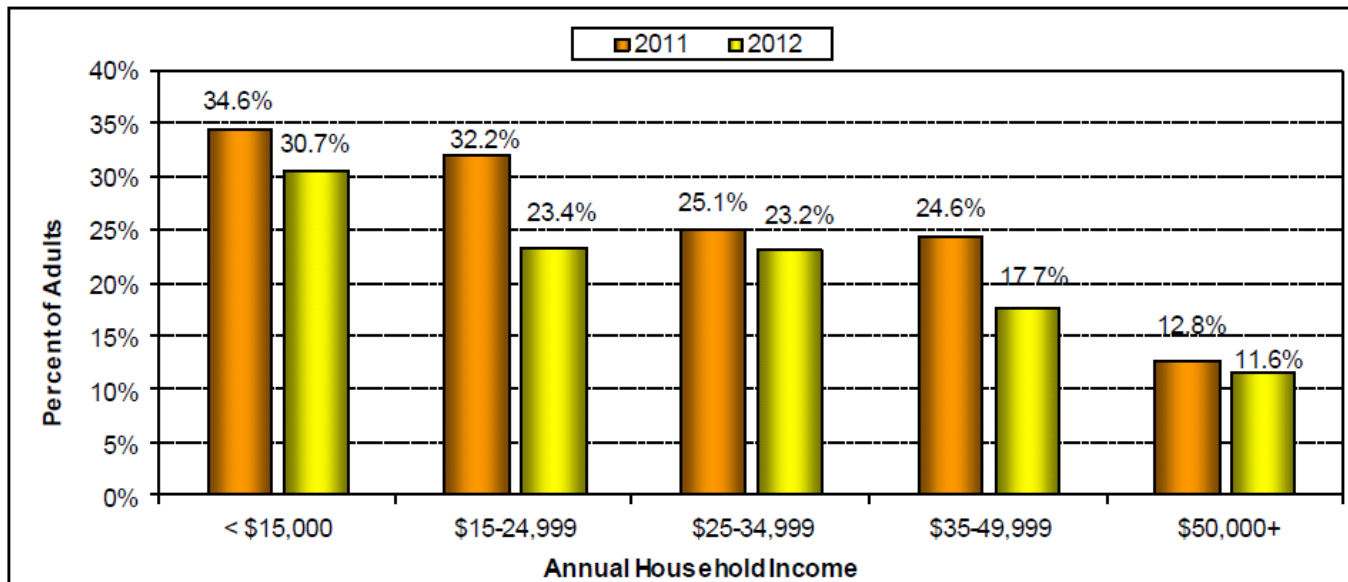
Source: CDC Behavioral Risk Factor Surveillance System (Maryland), 2000–2012.

Current Cigarette Smoking

Maryland Adults Ages 18 and Older—by Highest Educational Attainment, 2011 and 2012



Maryland Adults Ages 18 and Older—by Annual Household Income, 2011 and 2012

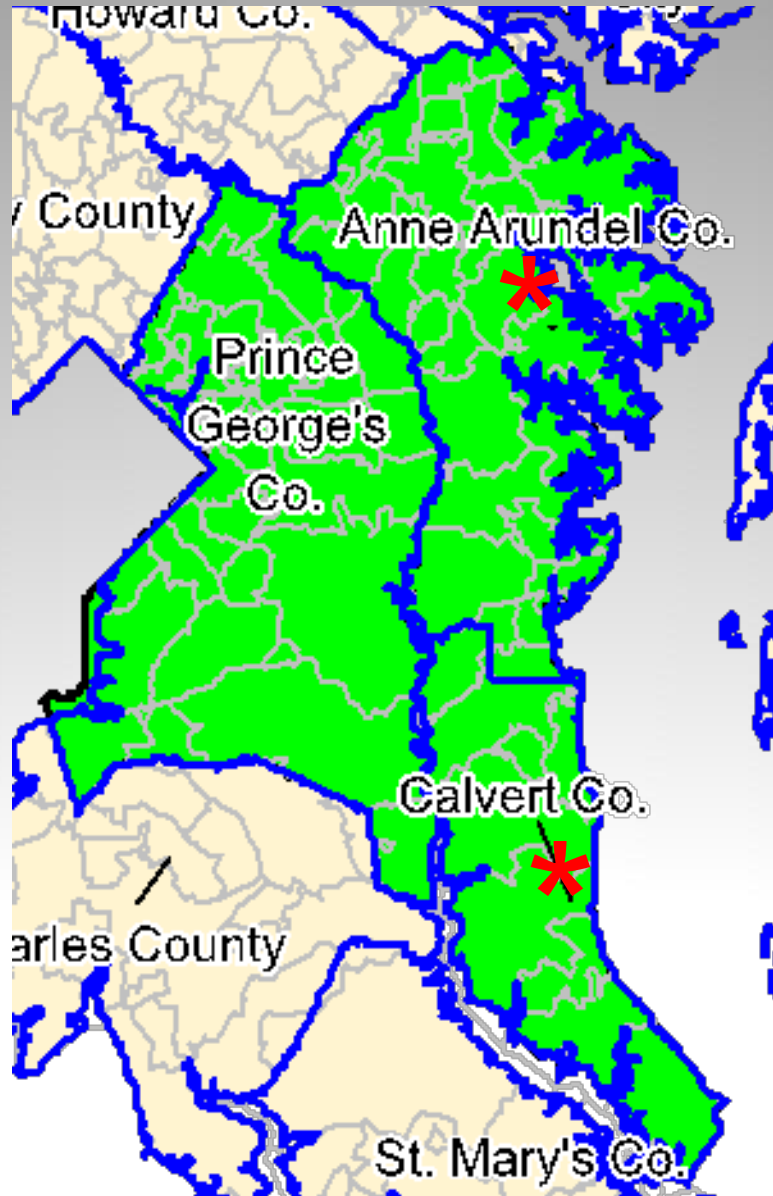


Source: CDC Behavioral Risk Factor Surveillance System (Maryland), 2011–2012.

Current Focus of the Lung Screening Program

- Focus on the underserved community
- Bristol-Myers Squibb Foundation
 - 3-year grant

Prince George's County
Pop: **863,420**
Smokers: **13.6%**
Uninsured: **20%**
< Poverty Level: **7.9%**

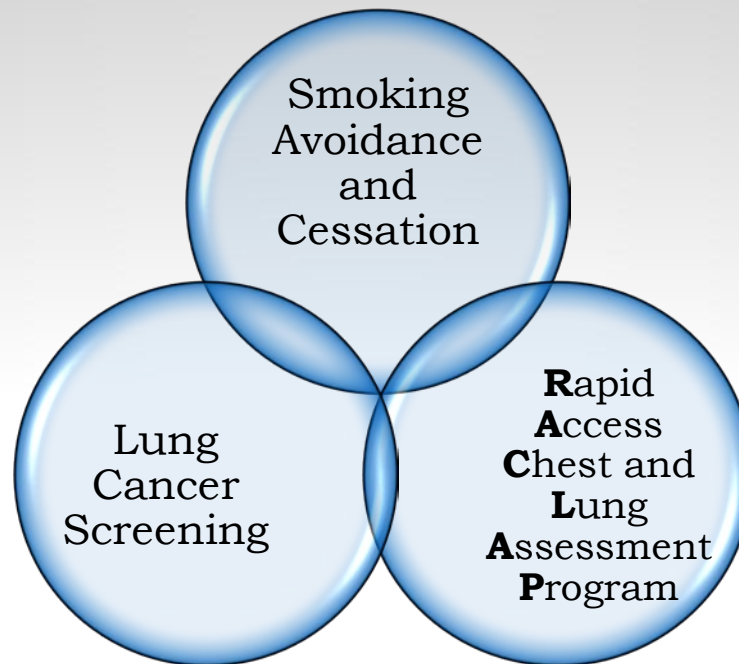


Anne Arundel County
Pop: **556,348**
Smokers: **18%**
Uninsured: **7.2%**
< Poverty Level: **6.3%**

Calvert County
Pop: **90,484**
Smokers: **18.9%**
Uninsured: **9.5%**
< Poverty Level: **4.9%**

Project Goals and Objectives

Expand program for primary and secondary lung cancer prevention in vulnerable populations in Anne Arundel, Calvert, and Prince George's Counties





Reaching Vulnerable Populations


- Utilize existing infrastructure and resources
- Leverage existing community relationships and forge new relationships
- Multiple strategies necessary for diverse populations

Electronic Medical Record Best Practice Alert

BestPractice Advisories


Last refreshed on 8/14/2016 at 2:36 PM 

▼ General (Advisory: 1)

 This patient may be eligible for lung cancer screening by CT Scanning protocol. They must meet the following criteria: between 55 and 80 AND they are a current or former smoker who has quit within the last 15 years AND they have a 30 pack year history (must meet all 3 criteria).

Order

Do Not Order

 CT CHEST LUNG SCREENING

Add HM Modifier


Do Not Add

Lung cancer screening: Patient is a candidate for screening

Add HM Modifier

Do Not Add

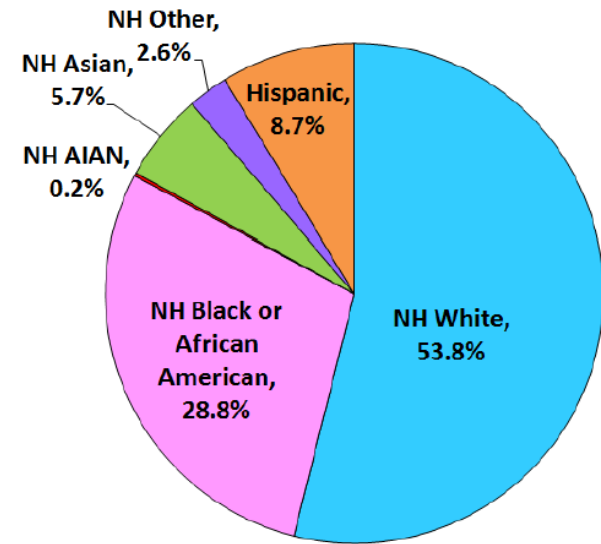
Lung cancer screening: Patient is non-candidate

 Apply Selected

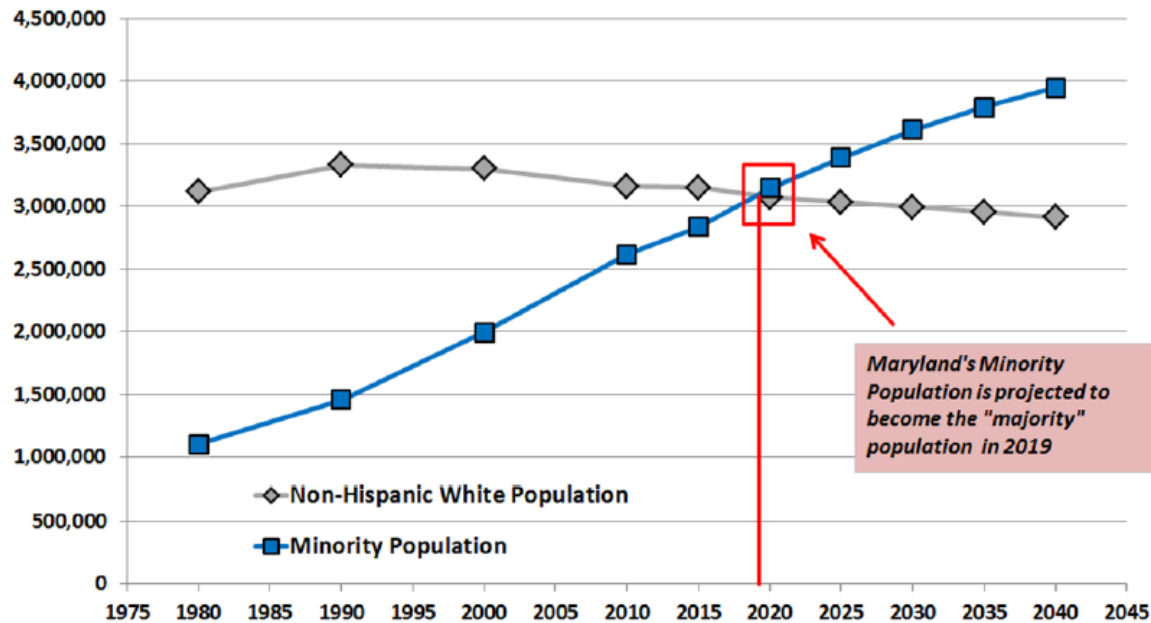
Example of BPA:
Health Maintenance
Modifier Selected

Maryland in 46.2% Racial/Ethnic Minority*

Maryland is on Track to be 50% Minority by 2019†



Maryland Non-Hispanic White and Minority Population Projections through 2040



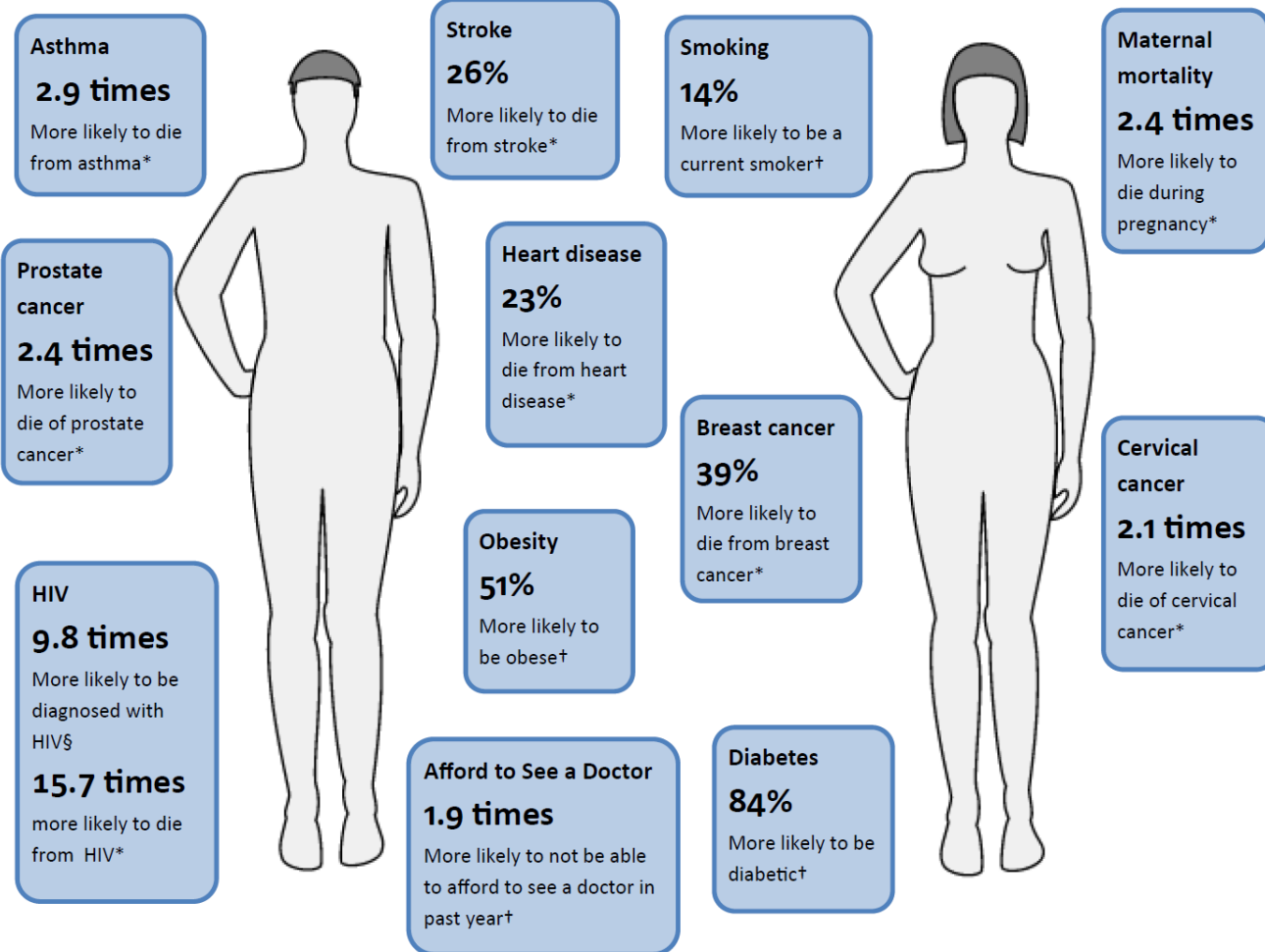
Maryland's Minority Population is projected to become the "majority" population in 2019

*American Community Survey, 2012

†Maryland Department of Planning, 2014

NON-HISPANIC BLACKS OR AFRICAN AMERICAN HEALTH DISPARITIES:

ADULTS

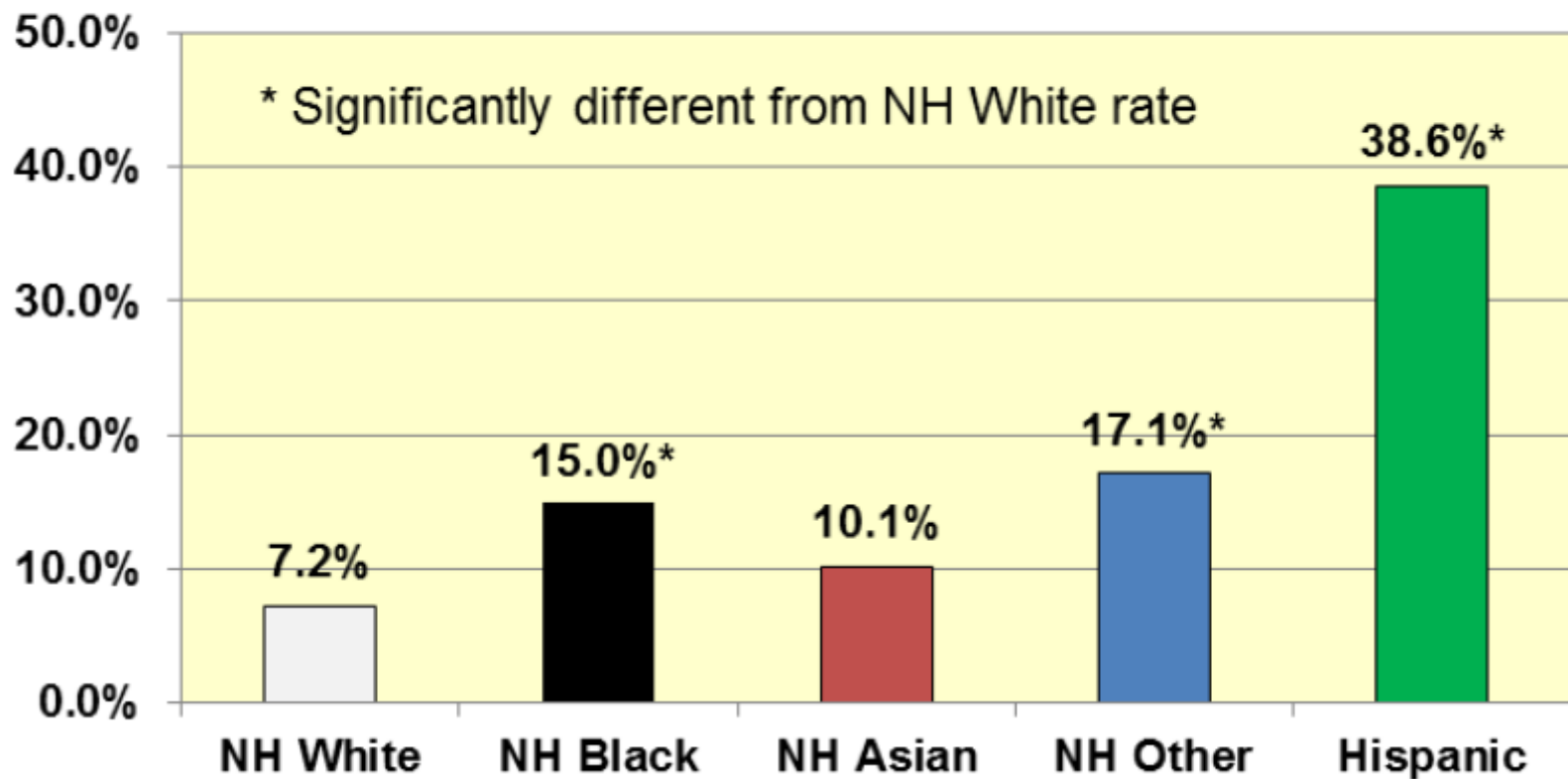


Community Collaboration

- Anne Arundel Medical Center (AAMC) and the Housing Authority of the City of Annapolis (HACA)
- A primary care practice in a low-income housing unit acting as a *community-embedded health resource*



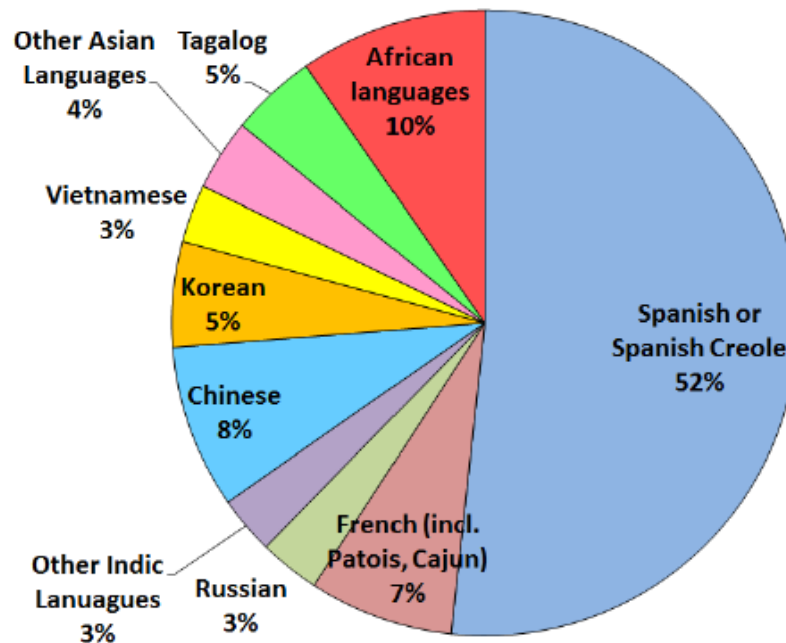
Percentage of Adults Without Health Insurance (At the Time of Survey), Maryland 2006-2010



Vulnerable Populations in Maryland

- Spanish-speaking tobacco treatment specialist

Top 10 Non-English Languages Spoken at Home, Among Residents Ages 5 and Older, 2008-2012 ACS



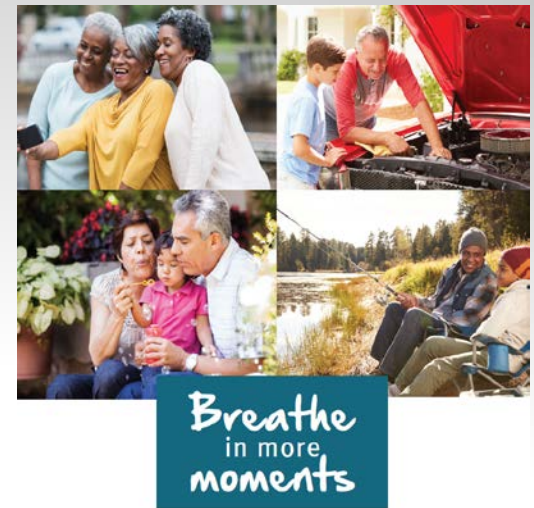
ACS = American Community Survey

Community Collaboration

- US Housing and Urban Development (HUD) – smoke-free housing initiative
 - Implementation over 18 months of final rule
- Federally Qualified Health Centers (FQHC)*
 - Higher prevalence smoking
 - Increased interest in smoking cessation
 - High rate of EMR use





*AJPH 105(1), 180-188, January 2015



Early lung cancer shows no signs or symptoms. However, when found early it is curable. Take a step toward a lifetime of moments by learning your risk for lung cancer with our free lung health profiler at askAAMC.org/Breathe.

Lung Health Risk Assessment

LIVING HEALTHIER TOGETHER. 



**Breathe
in more
moments**

Be There For Life's Special Moments

Early lung cancer shows no signs or symptoms. However, when found early it is curable. Take a step toward a lifetime of moments by learning your risk for lung cancer with our free lung health profiler.

Free Lung Health Profiler

Complete the health risk assessment by August 5, 2016 to be entered to win a \$250 Target gift card.

First Name



Last Name

Email Address

Phone Number

Submit

Please fill out all required fields

Health Solutions Management Portal

Username

Password

Login

[Forgot your Username or Password?](#)
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www.aahs.org/breathe



**Minority Health and
Health Disparities
Maryland Department of Health
and Mental Hygiene**



Calvert
Memorial
Hospital

Tradition. Quality. Progress.



Thank You

