

# CANCER INCIDENCE AND MORTALITY DELAWARE, 2012-2016

---

Diane Ng, MPH, Research Analyst

Wilhelmina Ross, PA, MPH, CTR, Manager of DCR Operations

Delaware Cancer Registry, Division of Public Health

Monday, October 12<sup>th</sup> 2020



*DELAWARE HEALTH AND SOCIAL SERVICES*

*Division of Public Health*

*Comprehensive Cancer Control Program*

# Overview

- All-site cancer rates
- Eight site-specific cancers
- Special section on Cancer Survivorship
- Census tract analyses
  - All-site cancer incidence rates for Delaware's 214 census tracts
  - 18 census tracts with all-site cancer incidence rates that were statistically significantly higher than the statewide all-site cancer incidence rates
  - Analysis and findings published in a separate report (available on the DPH website)



# ALL-SITE CANCER INCIDENCE



# 2012-2016 Incidence Facts

- Total of 28,581 cases (average of 5,716 per year)
- By sex
  - Male – 51%
  - Female – 49%
- By race/ethnicity
  - Non-Hispanic Caucasian – 78%
  - Non-Hispanic African American – 17%
  - Hispanic – 3%
- By county
  - New Castle County – 53%
  - Kent County – 18%
  - Sussex County – 29%



# All-Site Cancer Incidence; Delaware vs. U.S., 2012-2016

- Delaware remained ranked 2<sup>nd</sup> highest nationally for cancer incidence (statistically significantly higher than the U.S. incidence rate)
  - Delaware: 491.5 per 100,000
  - U.S.: 435.1 per 100,000
- Delaware males ranked 3<sup>rd</sup> highest for cancer incidence (statistically significantly higher than the male U.S. incidence rate)
  - Delaware males: 542.9 per 100,000
  - U.S. males: 474.3 per 100,000
- Delaware females ranked 5<sup>th</sup> highest for cancer incidence (statistically significantly higher than the female U.S. incidence rate)
  - Delaware females: 455.4 per 100,000
  - U.S. females: 409.6 per 100,000



# Most Commonly Diagnosed Cancers in Delaware, 2012-2016

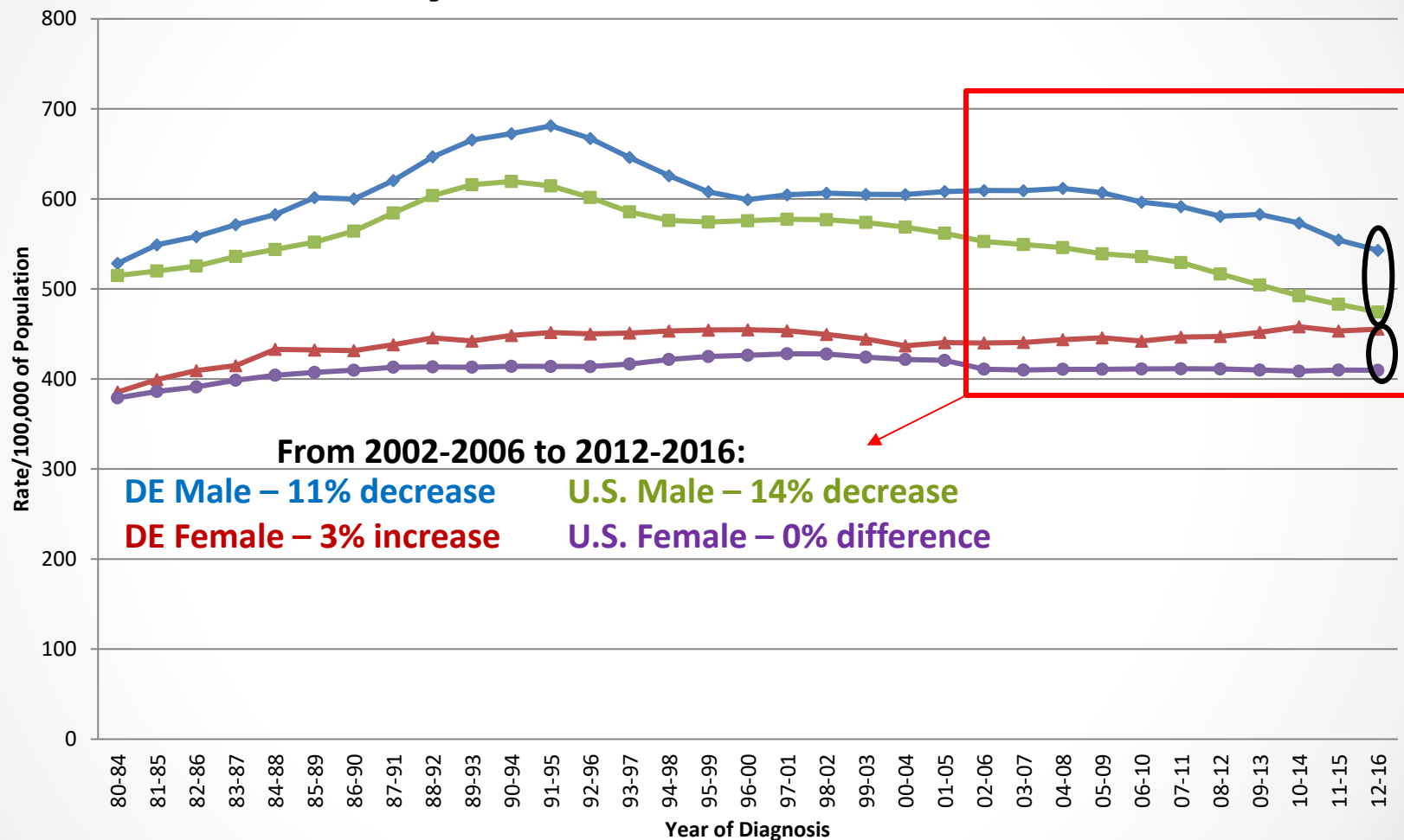
MALES		
1. Prostate	3,749	26%
2. Lung	2,103	14%
3. Colorectal	1,135	8%
4. Urinary bladder	1,125	8%
5. Melanoma	1,043	7%
6. NHL	649	4%
7. Kidney	639	4%
8. Oral	529	4%
9. Leukemia	483	3%
10. Pancreas	455	3%

FEMALES		
1. Breast	4,146	30%
2. Lung	2,065	15%
3. Colorectal	1,019	7%
4. Uterine	972	7%
5. Thyroid <sup>+</sup>	645	5%
6. Melanoma <sup>+</sup>	665	5%
7. NHL	558	4%
8. Pancreas	402	3%
9. Kidney	351	3%
10. Ovary	343	2%

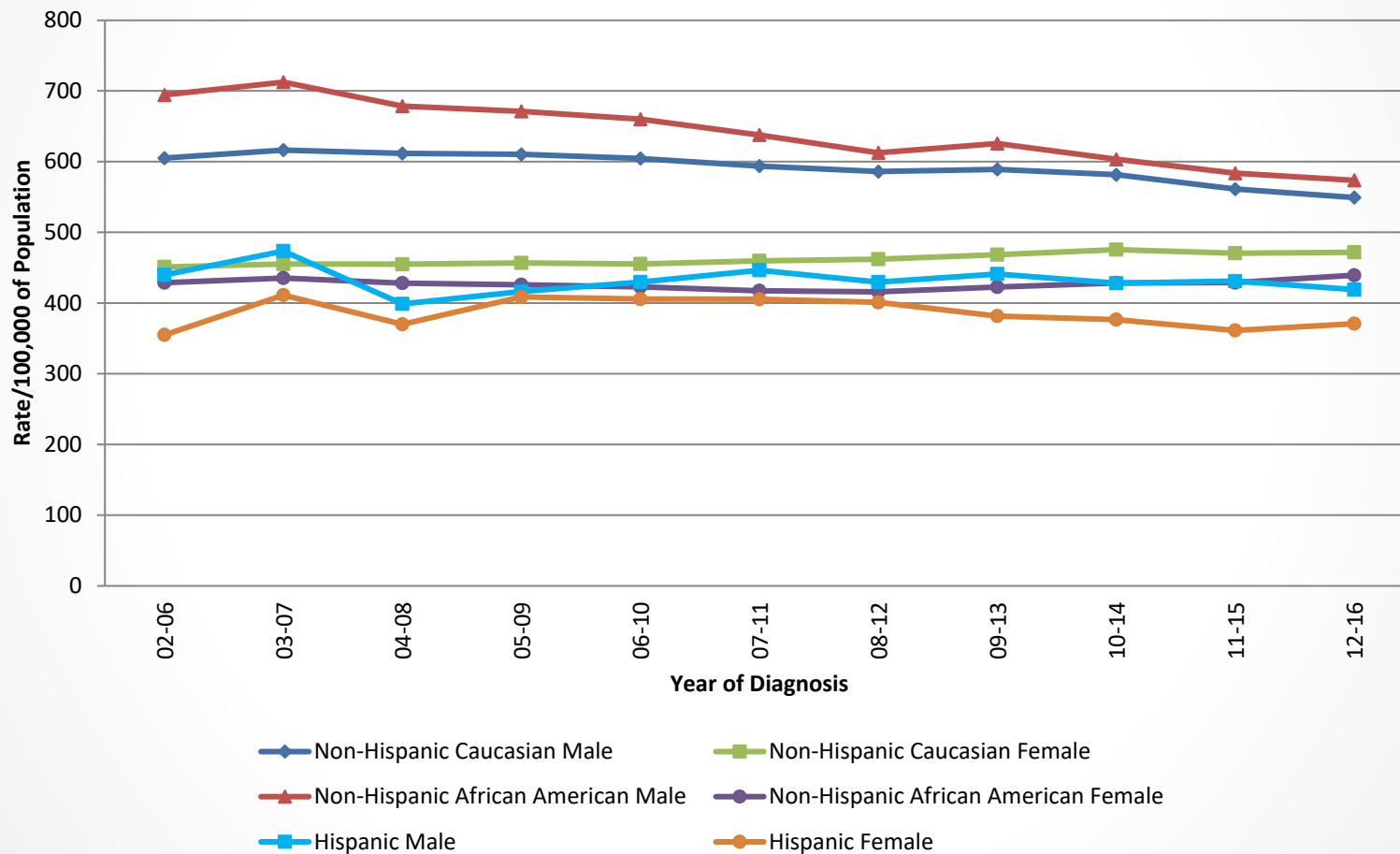
<sup>+</sup>Thyroid cancer incidence rate is higher than melanoma incidence rate



# Five-Year Average Age-Adjusted All-Site Cancer Incidence Rates by Sex; U.S. and Delaware, 1980-2016



# Five-Year Average Age-Adjusted All-Site Cancer Incidence Rates by Sex and Race/Ethnicity; Delaware, 2002-2016





# ALL-SITE CANCER MORTALITY



# 2012-2016 Mortality Facts

- Total of 9,945 deaths from cancer (average of 1,989 per year)
- By sex
  - Male – 52%
  - Female – 48%
- By race/ethnicity
  - Non-Hispanic Caucasian – 80%
  - Non-Hispanic African American – 17%
  - Hispanic – 2%
- By county
  - New Castle County – 52%
  - Kent County – 19%
  - Sussex County – 29%

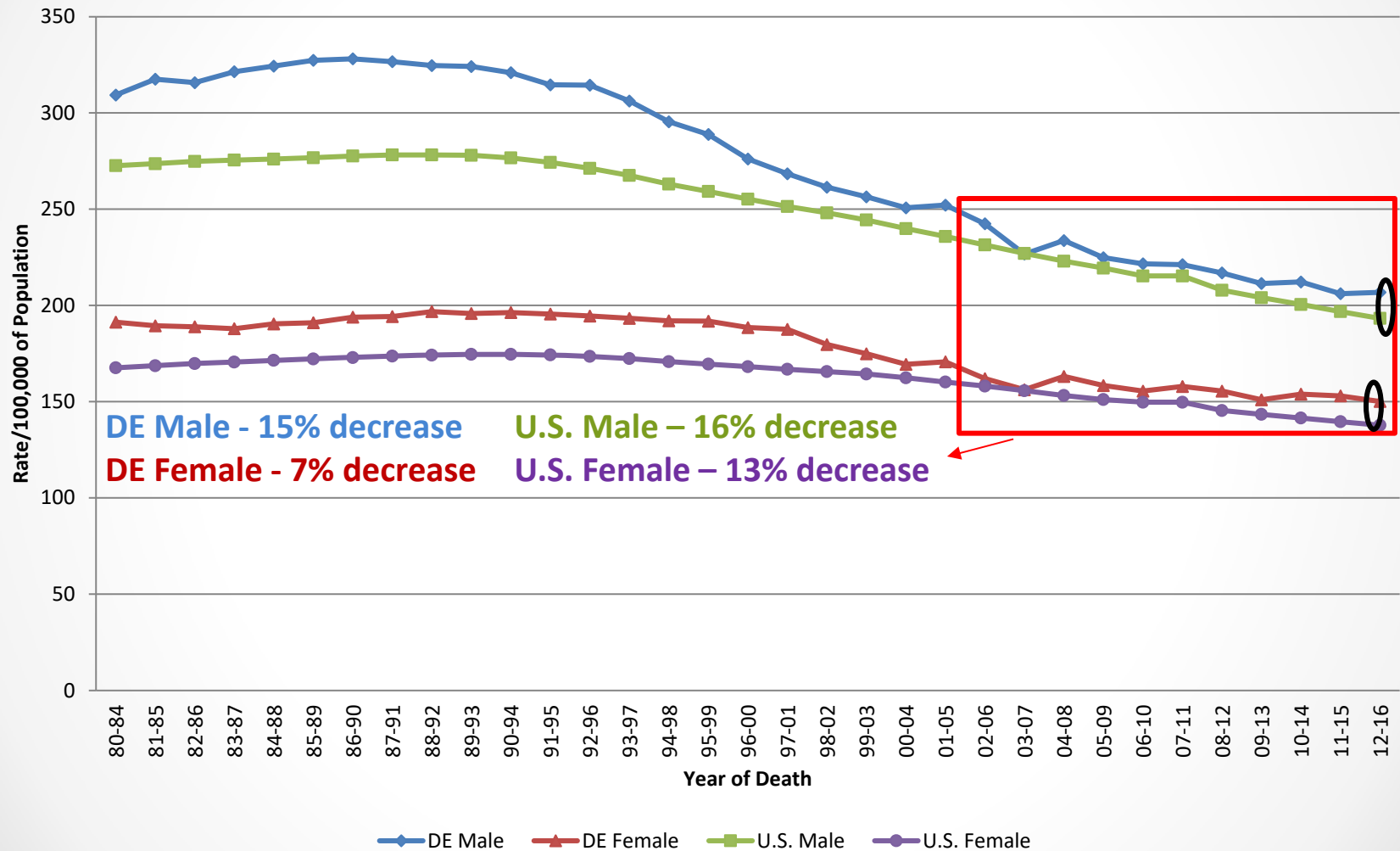


# All-Site Cancer Mortality; Delaware vs. U.S., 2012-2016

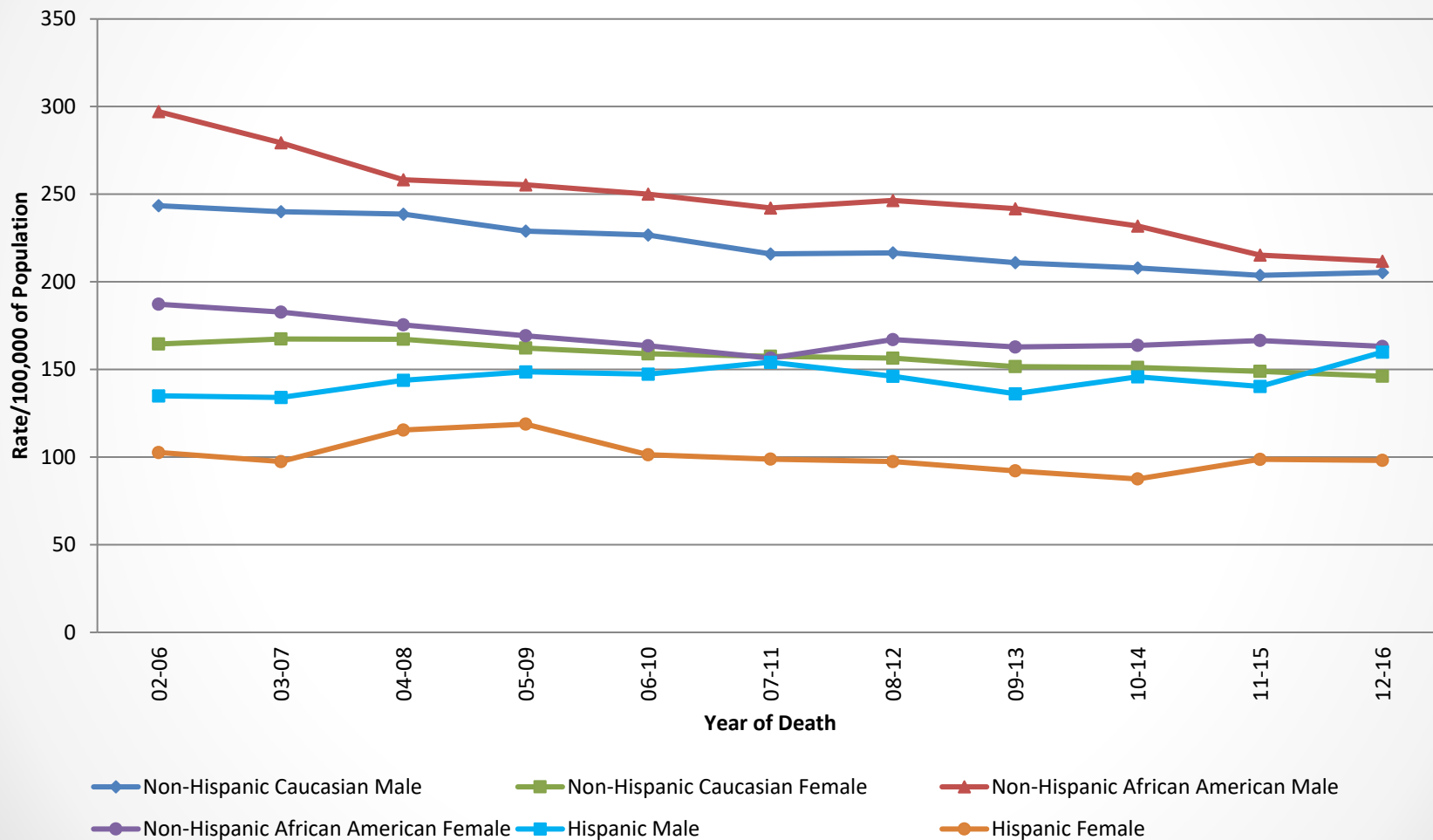
- DE ranked 15<sup>th</sup> highest nationally for cancer mortality (statistically significantly higher than the U.S. mortality rate)
  - Delaware: 174.0 per 100,000
  - U.S.: 161.1 per 100,000
- DE males ranked 18<sup>th</sup> highest for cancer mortality (statistically significantly higher than the male U.S. mortality rate)
  - Delaware males: 206.8 per 100,000
  - U.S. males: 193.3 per 100,000
- DE females ranked 14<sup>th</sup> highest for cancer mortality (statistically significantly higher than the female U.S. mortality rate)
  - Delaware females: 150.1 per 100,000
  - U.S. females: 137.8 per 100,000
- Non-Hispanic Caucasians in DE had a statistically significantly higher mortality rate than non-Hispanic Caucasians in the U.S.



# Five-Year Average Age-Adjusted All-Site Cancer Mortality Rates by Sex; U.S. and Delaware, 1980-2016



# Five-Year Average Age-Adjusted All-Site Cancer Mortality Rates by Sex and Race/Ethnicity; Delaware, 2002-2016



# NOTABLE SITE-SPECIFIC CANCER DETAILS



# Improvements by Cancer Site

- Breast
  - Between 2002-2006 and 2012-2016, mortality rates for female breast cancer decreased by 6% in Delaware and 16% in the U.S.
  - The difference in female breast cancer mortality rates between Delaware (ranked 20<sup>th</sup> nationally; 22.1 per 100,000) and the U.S. (20.6 per 100,000) was not statistically significant.
  - The percent difference in mortality rate between non-Hispanic African American (AA) women and non-Hispanic Caucasians 40-64 years of age decreased from 56% higher in non-Hispanic AA women in 2010-2014 to 29% higher in 2012-2016.
- Colorectal
  - Between 2002-2006 and 2012-2016, incidence rates for colorectal cancer decreased by 28% in Delaware and 22% in the U.S.
  - Between 2002-2006 and 2012-2016, mortality rates for colorectal cancer decreased by 26% in Delaware and 22% in the U.S.
  - The percentage of colorectal cancer cases diagnosed at local stage has increased from 36% in 2002-2006 to 40% in 2012-2016.



# Improvements by Cancer Site

- Lung
  - A larger percentage of lung cancers were diagnosed at local stage in Delaware (24%) than in the U.S. (20%).
  - Between 2011-2015 and 2012-2016, there was a decrease in percentage of lung cancers diagnosed at distant stage from 52% to 50%.
- Melanoma
  - Delaware's ranking in the U.S. for malignant melanoma mortality decreased from 15th in 2011-2015 to 18th in 2012-2016. For males, the ranking decreased from 21st in 2011-2015 to 25th in 2012-2016.
- Prostate
  - Between 2002-2006 and 2012-2016, mortality rates for prostate cancer decreased by 34% in Delaware and 26% in the U.S.





# Cancers Sites with Statistically Significant Differences from the U.S.

## Delaware Incidence Rate Statistically Significantly Higher than U.S.

All-site
Breast
Lung
Prostate
Melanoma
Non-Hodgkin Lymphoma
Uterine
Thyroid

## Delaware Incidence Rate Not Statistically Significantly Different from U.S.

Colorectal



# Cancer Sites with Dramatic Increases in Incidence from 2002-2006 to 2012-2016

Cancer Site	Delaware Percent change 2002-2006 to 2012-2016	U.S. Percent change 2002-2006 to 2012-2016
Melanoma	+35%	+17%
Thyroid	+55%	+51%



# Cancer Sites with Dramatic Decreases in Incidence from 2002-2006 to 2012-2016

Cancer Site	Delaware Percent change 2002-2006 to 2012-2016	U.S. Percent change 2002-2006 to 2012-2016
Colorectal	-28%	-22%
Prostate	-27%	-34%



# Cancer Sites with Dramatic Increases in Mortality from 2002-2006 to 2012-2016

Cancer Site	Delaware Percent change 2002-2006 to 2012-2016	U.S. Percent change 2002-2006 to 2012-2016
Uterine	+32%	+12%



# Cancer Sites with Dramatic Decreases in Mortality from 2002-2006 to 2012-2016

Cancer Site	Delaware Percent change 2002-2006 to 2012-2016	U.S. Percent change 2002-2006 to 2012-2016
Colorectal	-26%	-22%
Lung	-19%	-22%
Prostate	-34%	-26%
Non-Hodgkin Lymphoma	-6%	-21%



# Cancer Survivorship in Delaware

- As of January 1, 2016, there were an estimated 50,760 cancer survivors in Delaware<sup>1</sup>
- According to the 2018 BRFSS, about 21% of the cancer survivors have more than one type of cancer<sup>2</sup>
- 50.5% of the survivors received a written summary of all their cancer treatment<sup>2</sup>
- 58% of the survivors received their survivorship health care through primary care physicians or internist<sup>2</sup>
- 98.6% of the survivors had health insurance (includes Medicare, Medicaid, or other types of state health programs) that paid for all or part of their cancer treatment<sup>2</sup>

1 American Cancer society. Cancer Treatment and Survivorship facts & figures 2016-2017. Atlanta: American Cancer Society.

2 Delaware Department of Health and Social Services, Division of Public Health, Delaware Behavioral Risk Factor Survey (BRFS) Module, 2018.



# Cancer Survivorship in Delaware

- Delaware continues to provide services and access to care to cancer survivors via the programs in the following areas:
  - **Cancer Screening and Prevention**
    - Screening for Life
    - Delaware Tobacco Prevention and Control Programs
  - **Insurance and Treatment**
    - The Health Care Connection (HCC)
    - Delaware's Cancer Treatment Program
  - **Follow-up and Maintenance**
    - Care coordinators
    - Cancer: Thriving and Surviving (CTS) program
    - Live Strong at the YMCA



# Cancer Screening

- The Behavioral Risk Factor Survey (BRFS) collects information on cancer screening
- Breast cancer – Delaware ranks 3<sup>rd</sup> nationally for mammography
  - 79% of Delaware females 40 and older were screened for breast cancer in the previous 2 years compared to 72% nationally
- Colorectal cancer – Delaware ranks 11<sup>th</sup> nationally for meeting USPSTF colorectal cancer screening
  - 73% of Delawareans met the USPSTF recommendations compared to 70% nationally
- Prostate cancer – Delaware ranks 8<sup>th</sup> for PSA tests
  - 38% of Delaware males 40 and older has a PSA test in the past 2 years compared to 33% nationally

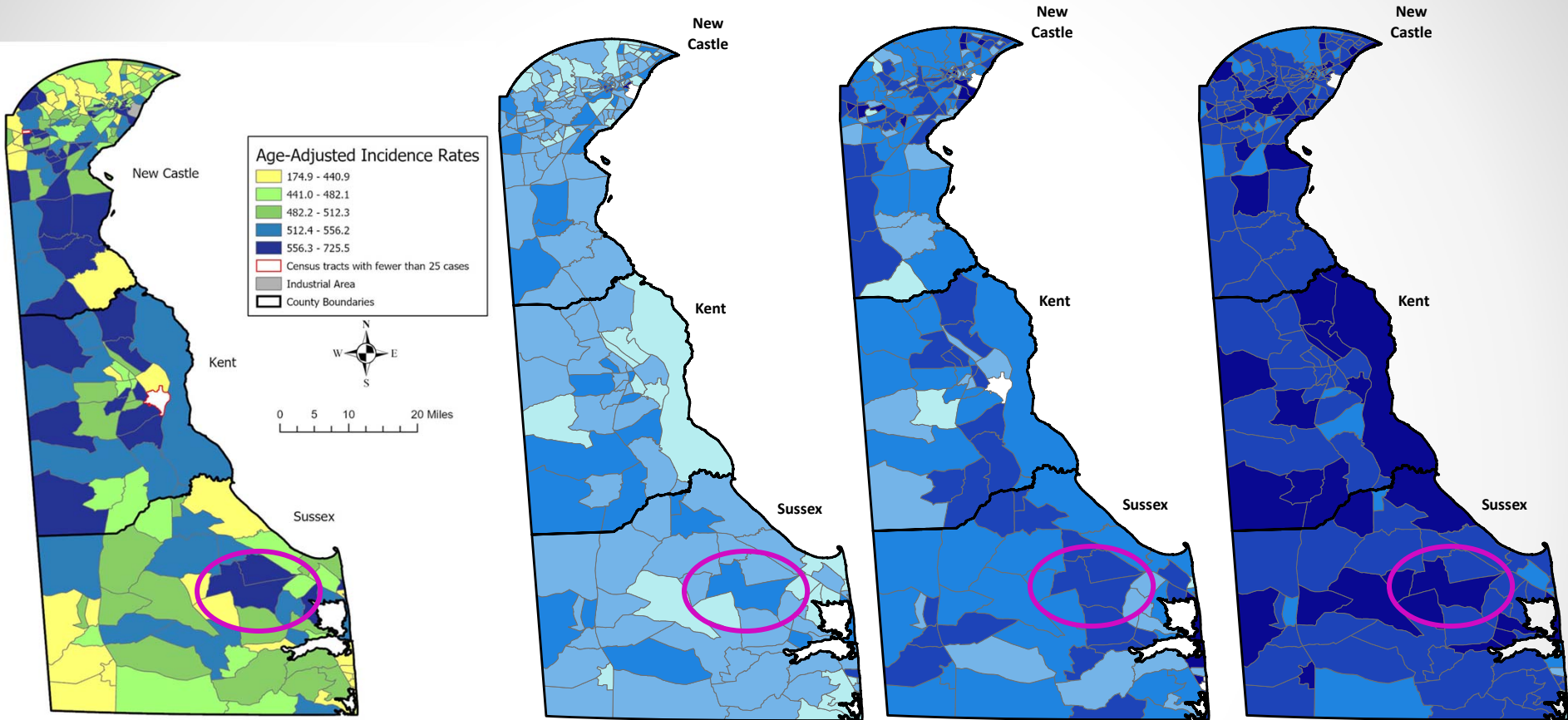




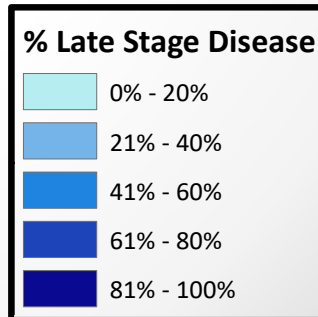
# Cancer Prevention

- Tobacco use is the leading risk factor
  - In 2018, 17% of Delawareans were current smokers, almost the same as nationally (16%)
  - Contributes to many cancers including lung, esophagus, kidney, urinary bladder, stomach, and pancreas
- Lack of physical activity and unhealthy eating are associated with increased risk of multiple cancers
- Alcohol abuse is a risk factor for many cancers
- Excessive sun exposure is a risk factor for melanoma





\*Note: maps for % late stage are not from 2012-2016, but are used as an example



# Summary

- Delaware continues to have the second highest cancer incidence in the nation even though incidence rates are declining.
- Delaware mortality rates are decreasing even though Delaware ranks 15<sup>th</sup> nationally for cancer mortality.
- Cancer screening rates continue to be high in Delaware with an increasing number of cancers being diagnosed at earlier, more treatable stages.
- Delaware cancer survivorship is increasing due to proper coordination and care between cancer specialists and primary care physicians.
  - Delaware has available cancer programs and services that focus on the needs of cancer survivors that include screening and prevention, insurance, treatments, and survivorship programs that have goals in improving the cancer survivor's health and quality of life.
- There need to be continued efforts to improve and enhance not only cancer screening, but also cancer prevention in Delaware by addressing behavioral risk factors and social determinants of health.



The full report can be  
found at

[http://dhss.delaware.gov/  
dph/dpc/cancer.html](http://dhss.delaware.gov/dph/dpc/cancer.html)



# Discussion/Wrap Up

---

Helen Arthur, MHA

Section Chief, Health Promotion and Disease  
Prevention, Division of Public Health



# ADVANCING HEALTHY LIFESTYLES

- Healthy Lifestyles Subcommittee Update
- Prevention work continues in DPH
- COVID-19 & Cancer Screenings
- Achieving Health Equity
- My Healthy Community Portal



# HEALTHY LIFESTYLES SUBCOMMITTEE

**Goals:** To focus on impact and equity and stay focused on priority areas

**Charge:** Responsible for developing actionable policy recommendations to positively influence healthy lifestyles

**Priority:** Birth to age 18

**Priority:** Workplace Wellness

**Priority:** Broader policy approaches

For more information visit [HealthyDelaware.org](http://HealthyDelaware.org)

# PREVENTION EFFORTS

Physical Activity, Nutrition, Obesity Prevention (PANO) Program  
Request For Proposal (RFP)

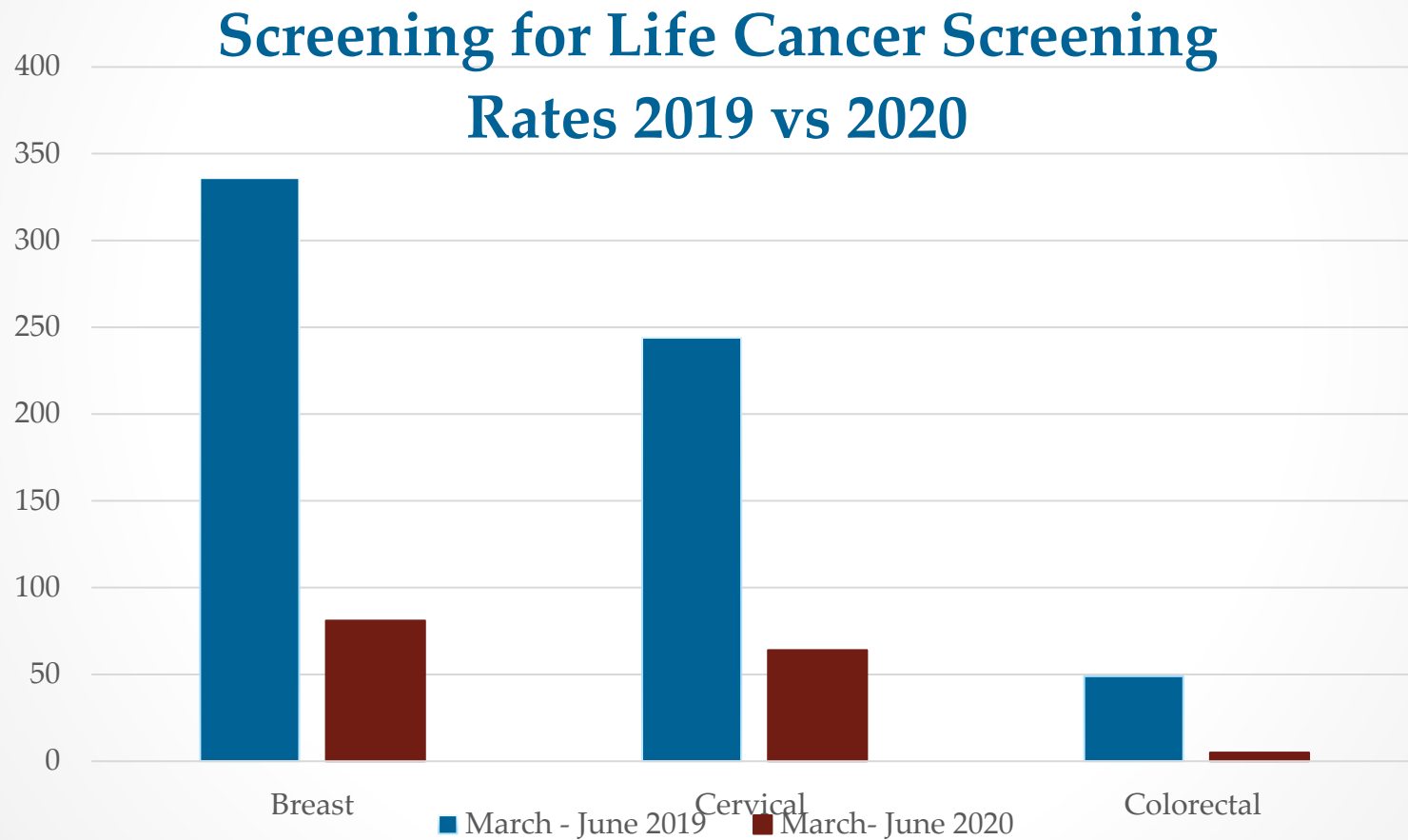
## ADVANCING HEALTHY LIFESTYLES: CHRONIC DISEASE, HEALTH EQUITY & COVID-19

- **Goal:** to reduce the prevalence of obesity and other chronic diseases by promoting healthy lifestyles and improving health outcomes for Delawareans
- **Objectives:** develop & Implement evidence-based PSE strategies that will help Delawareans engage in regular physical activity, better nutrition, and make intentional lifestyle changes, lowering the risk of developing heart disease, cancer, chronic lower respiratory disease, diabetes, and other chronic diseases





# COVID-19 & CANCER SCREENINGS



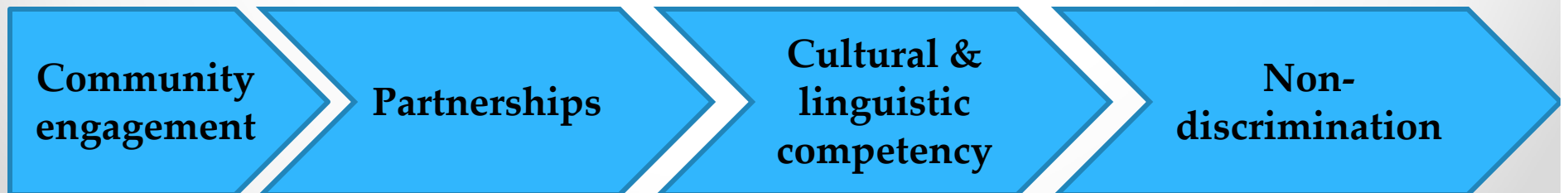
# ACHIEVING HEALTH EQUITY

## Causes of Health Disparities

- Social determinants of health
- Behavioral determinants of health
- Environmental determinants of health
- Biological and genetic determinant of health

## National Stakeholder Strategy Goals

- Awareness
- Leadership
- Healthy System and Life Experience
- Cultural and Linguistic Competency
- Data, Research and Evaluation



# MY HEALTHY COMMUNITY PORTAL

The screenshot shows a web browser window with the URL `myhealthycommunity.dhss.delaware.gov/locations/state`. The page features a teal header with the Delaware.gov logo and navigation links for Agencies, News, Topics, and Contact. Below the header is a blue section titled "My Healthy Community" with the subtitle "Delaware Environmental Public Health Tracking Network" and a search bar. The main content area has a dark background with a red and white virus particle illustration. It displays the title "Coronavirus (COVID-19) Data Dashboard State of Delaware" and a subtitle "A resource of COVID-19 data and facts for Delaware families and communities." Two buttons are present: a pink one for "Delaware's Official Coronavirus Website" and a green one for "More health data about State of Delaware". At the bottom, a dark blue navigation bar includes "STATE OF DELAWARE Population: 974,051" and menu items for Overview, Testing, Cases, Outcomes, and Contact Tracing.

State of Delaware – My Healthy C x +

myhealthycommunity.dhss.delaware.gov/locations/state

Delaware.gov Agencies News Topics Contact

**My Healthy Community**  
Delaware Environmental Public Health Tracking Network

Search for your community

Home / State of Delaware /

## Coronavirus (COVID-19) Data Dashboard State of Delaware

A resource of COVID-19 data and facts for Delaware families and communities.

Delaware's Official Coronavirus Website → More health data about State of Delaware →

**STATE OF DELAWARE**  
Population: 974,051

Overview Testing Cases Outcomes Contact Tracing