CANCER INCIDENCE AND MORTALITY
DELWARE, 2011-2015

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Delaware Cancer Registry, Division of Public Health
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Overview

• All-site cancer rates
• Eight site-specific cancers
• Special section on lung cancer
• Census tract analyses
  o All-site cancer incidence rates for Delaware’s 214 census tracts
  o 16 census tracts with all-site cancer incidence rates that were statistically significantly higher than the statewide all-site cancer incidence rates
  o Analysis and findings published in a separate report (available on the DPH website)
ALL-SITE CANCER INCIDENCE
2011-2015 Incidence Facts

• Total of 28,027 cases (average of 5,605 per year)
• By sex
  o Male – 52%
  o Female – 48%
• By race/ethnicity
  o Non-Hispanic Caucasian – 79%
  o Non-Hispanic African American – 17%
  o Hispanic – 3%
• By county
  o New Castle County – 53%
  o Kent County – 18%
  o Sussex County – 29%
All-Site Cancer Incidence; Delaware vs. U.S., 2011-2015

• Delaware remained ranked 2nd highest nationally for cancer incidence (statistically significantly higher than the U.S. incidence rate)
  - Delaware: 495.3 per 100,000
  - U.S.: 439.2 per 100,000

• Delaware males ranked 3rd highest for cancer incidence (statistically significantly higher than the male U.S. incidence rate)
  - Delaware males: 554.4 per 100,000
  - U.S. males: 483.0 per 100,000

• Delaware females ranked 5th highest for cancer incidence (statistically significantly higher than the female U.S. incidence rate)
  - Delaware females: 453.3 per 100,000
  - U.S. females: 409.9 per 100,000
## Most Commonly Diagnosed Cancers in Delaware, 2011-2015

<table>
<thead>
<tr>
<th>MALES</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Prostate</strong></td>
<td>3,817</td>
<td>26%</td>
</tr>
<tr>
<td><strong>2. Lung</strong></td>
<td>2,134</td>
<td>15%</td>
</tr>
<tr>
<td><strong>3. Colorectal</strong></td>
<td>1,084</td>
<td>7%</td>
</tr>
<tr>
<td><strong>4. Urinary bladder</strong></td>
<td>1,082</td>
<td>7%</td>
</tr>
<tr>
<td><strong>5. Melanoma</strong></td>
<td>1,010</td>
<td>7%</td>
</tr>
<tr>
<td><strong>6. NHL</strong></td>
<td>627</td>
<td>4%</td>
</tr>
<tr>
<td><strong>7. Kidney</strong></td>
<td>625</td>
<td>4%</td>
</tr>
<tr>
<td><strong>8. Oral</strong></td>
<td>520</td>
<td>4%</td>
</tr>
<tr>
<td><strong>9. Leukemia</strong></td>
<td>474</td>
<td>3%</td>
</tr>
<tr>
<td><strong>10. Pancreas</strong></td>
<td>437</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEMALES</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Breast</strong></td>
<td>4,008</td>
<td>30%</td>
</tr>
<tr>
<td><strong>2. Lung</strong></td>
<td>1,982</td>
<td>15%</td>
</tr>
<tr>
<td><strong>3. Colorectal</strong></td>
<td>997</td>
<td>7%</td>
</tr>
<tr>
<td><strong>4. Uterine</strong></td>
<td>955</td>
<td>7%</td>
</tr>
<tr>
<td><strong>5. Melanoma</strong></td>
<td>658</td>
<td>5%</td>
</tr>
<tr>
<td><strong>6. Thyroid</strong></td>
<td>602</td>
<td>4%</td>
</tr>
<tr>
<td><strong>7. NHL</strong></td>
<td>537</td>
<td>4%</td>
</tr>
<tr>
<td><strong>8. Pancreas</strong></td>
<td>398</td>
<td>3%</td>
</tr>
<tr>
<td><strong>9. Ovary</strong></td>
<td>343</td>
<td>3%</td>
</tr>
<tr>
<td><strong>10. Kidney</strong></td>
<td>337</td>
<td>2%</td>
</tr>
</tbody>
</table>
Five-Year Average Age-Adjusted All-Site Cancer Incidence Rates by Sex; U.S. and Delaware, 1980-2015

- **DE Male**: 9% decrease
- **DE Female**: 3% increase
- **U.S. Male**: 14% decrease
- **U.S. Female**: 3% decrease
Five-Year Average Age-Adjusted All-Site Cancer Incidence Rates by Sex and Race/Ethnicity; Delaware, 2001-2015
ALL-SITE CANCER MORTALITY
2011-2015 Mortality Facts

• Total of 9,718 deaths from cancer (average of 1,944 per year)

• By sex
  o Male – 51%
  o Female – 49%

• By race/ethnicity
  o Non-Hispanic Caucasian – 80%
  o Non-Hispanic African American – 17%
  o Hispanic – 2%

• By county
  o New Castle County – 53%
  o Kent County – 19%
  o Sussex County – 28%
All-Site Cancer Mortality; Delaware vs. U.S., 2011-2015

• DE ranked 18th highest nationally for cancer mortality (statistically significantly higher than the U.S. mortality rate)
  o Delaware: 175.1 per 100,000
  o U.S.: 163.5 per 100,000

• DE males ranked 22nd highest for cancer mortality (statistically significantly higher than the male U.S. mortality rate)
  o Delaware males: 206.1 per 100,000
  o U.S. males: 196.8 per 100,000

• DE females ranked 14th highest for cancer mortality (statistically significantly higher than the female U.S. mortality rate)
  o Delaware females: 153.0 per 100,000
  o U.S. females: 139.6 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, 1980-2015

- DE Male - 18% decrease
- DE Female - 10% decrease
- U.S. Male – 17% decrease
- U.S. Female – 13% decrease
Five-Year Average Age-Adjusted All-Site Cancer Mortality Rates by Sex and Race/Ethnicity; Delaware, 2001-2015

- Non-Hispanic Caucasian Male
- Non-Hispanic Caucasian Female
- Non-Hispanic African American Male
- Non-Hispanic African American Female
- Hispanic Male
- Hispanic Female

Year of Death
- 01-05
- 02-06
- 03-07
- 04-08
- 05-09
- 06-10
- 07-11
- 08-12
- 09-13
- 10-14
- 11-15

Rate/100,000 of Population
- 0
- 50
- 100
- 150
- 200
- 250
- 300
- 350

DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health
Comprehensive Cancer Control Program
NOTABLE SITE-SPECIFIC CANCER DETAILS
Cancers Sites with Statistically Significant Differences from the U.S.

<table>
<thead>
<tr>
<th>Delaware Incidence Rate Statistically Significantly Higher than U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All-site</td>
</tr>
<tr>
<td>Breast</td>
</tr>
<tr>
<td>Lung</td>
</tr>
<tr>
<td>Pancreas</td>
</tr>
<tr>
<td>Prostate</td>
</tr>
<tr>
<td>Urinary bladder</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Delaware Incidence Rate Statistically Significantly Lower than U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorectal</td>
</tr>
</tbody>
</table>


Cancer Sites with Dramatic Increases in Incidence from 2001-2005 to 2011-2015

<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Liver</td>
<td>+75%</td>
<td>+57%</td>
</tr>
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</table>
Cancer Sites with Dramatic Decreases in Incidence from 2001-2005 to 2011-2015

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Colorectal</td>
<td>-30%</td>
<td>-22%</td>
</tr>
<tr>
<td>Prostate</td>
<td>-22%</td>
<td>-34%</td>
</tr>
</tbody>
</table>
Cancer Sites with Dramatic Increases in Mortality from 2001-2005 to 2011-2015

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Liver</td>
<td>+44%</td>
<td>+28%</td>
</tr>
</tbody>
</table>

DELAWARE HEALTH AND SOCIAL SERVICES
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Comprehensive Cancer Control Program
Cancer Sites with Dramatic Decreases in Mortality from 2001-2005 to 2011-2015

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorectal</td>
<td>-31%</td>
<td>-23%</td>
</tr>
<tr>
<td>Lung</td>
<td>-19%</td>
<td>-20%</td>
</tr>
<tr>
<td>Prostate</td>
<td>-37%</td>
<td>-28%</td>
</tr>
<tr>
<td>Stomach</td>
<td>-16%</td>
<td>-22%</td>
</tr>
</tbody>
</table>
Lung Cancer in Delaware

• The most frequently diagnosed cancer in Delaware in 2011-2015 – 15% of all new cancer cases

• Most lung cancers are diagnosed at distant stage (52%)
  ○ This is an increase from 45% in 1980-1984

• The most common cause of cancer death in Delaware in 2011-2015 – 29% of cancer deaths

• Data from the Delaware Cancer Treatment Program (DCTP) for 2002-2017 show that lung cancer was the most common cancer treated through the program
  ○ Second to breast cancer for number of claims and amount of claims paid

• Early detection and screening are pivotal in reducing the burden from lung cancer in Delaware
Cancer Screening

- The Behavioral Risk Factor Survey (BRFS) collects information on cancer screening
- Breast cancer – Delaware ranks 3rd nationally for mammography
  - 78% of Delaware females 40 and older were screened for breast cancer in the previous 2 years compared to 72% nationally
- Colorectal cancer – Delaware ranks 12th nationally for meeting USPSTF colorectal cancer screening
  - 77% of Delawareans met the USPSTF recommendations compared to 68% nationally
- Prostate cancer – Delaware ranks 6th for PSA tests
  - 45% of Delaware males 40 and older had a PSA test in the past 2 years compared to 39% nationally
Cancer Prevention

• Tobacco use is the leading risk factor
  o In 2017, 17% of Delawareans were current smokers, the same as nationally
  o 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
  o Particularly liver cancer which saw the highest increase in incidence for 2001-2005 to 2011-2015

• Excessive sun exposure is a risk factor for melanoma
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 18th 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.
• Lung cancer is the most commonly diagnosed cancer in Delaware and the number one site for cancer death.
• 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
Discussion/Wrap Up

Dr. Karyl T. Rattay, MD, MS
Director, Delaware Division of Public Health
Population-based Prevention Initiatives

- Governor’s Action Plan
- Lt. Governor’s Challenge 2.0
- Social Marketing
- Healthy Communities Delaware
HEALTHY COMMUNITIES DELAWARE (HCD)

COMMUNITY INVESTMENT COUNCIL (CIC)

Core Functions of CIC:
- Participants individually review and consider funding all or part of worthwhile projects/programs that enhance community health.
- Participants contribute limited funds to a pool for the operation of the BBO.

LEADERSHIP COUNCIL

Core Functions of Leadership Council:
- Governs the overall operation of the HCD initiative with significant stakeholder involvement at all levels.
- Identifies critical conditions and priority health needs statewide.
- Identifies and advocates for statewide policies that advance population health.
- Encourages alignment of local health-related initiatives and statewide priorities.
- Encourages alignment between health and community development investments and the creation of a balanced investment portfolio.
- Convenes periodic symposia at the county and statewide levels.

Management Group

Core Functions of Management Group:
- Provides overall management and logistical support for CIC and the overall Healthy Communities Delaware Initiative.
- Provides and/or facilitates the provision of training/technical assistance/coaching services in support of local planning efforts.
- Monitors the implementation of projects/programs, and evaluates their impacts.

Proposed Projects

Investor Priorities

Model supports existing and new, emerging task forces and/or partnerships.

Local stakeholders are encouraged to form alliances and partnerships and work collaboratively to plan and carry out activities that improve community health.

Community Input

Direct contracting with community implementation partner

Management Group contracts with community implementation partner

Individual Stakeholder

Community Based Organization

Task Force/Partnership
School-Based Programs to Increase Physical Activity
→ School-Based Violence Prevention
→ Safe Routes to School
→ Motorcycle Injury Prevention
→ Tobacco Control Interventions
→ Access to Clean Syringes
→ Pricing Strategies for Alcohol Products
→ Multi-Component Worksite Obesity Prevention

Changing the Context
Making the healthy choice the easy choice

Early Childhood Education
→ Clean Diesel Bus Fleets
→ Public Transportation System
→ Home Improvement Loans and Grants
→ Earned Income Tax Credits
→ Water Fluoridation

Social Determinants of Health

HI-5

HEALTH IMPACT IN 5 YEARS
You can search for:
- Street address
- Zip code
- Census tract block group
- Neighborhood
- Town/City
- County
- Also provides state-level reports
- Note regarding HIPAA
  - Not all data can be made available at the small spatial resolutions to ensure HIPAA compliance.

1st approach: smaller geography when suppression rules met, if not aggregates multiple years
2nd approach: next higher geography with annual or multiple years if necessary
health happens here