Vermonters today are more likely to die from a chronic disease than an infectious disease. 3-4-50 is a simple concept to help us grasp the reality that 3 health behaviors contribute to 4 chronic diseases that claim the lives of more than 50% of Vermonters.

Cancer in Vermont

**CANCER AND 3-4-50**

Cancer is a leading cause of death in Vermont. Nearly two-thirds of cancer deaths in the U.S. are linked to tobacco use, poor diet, obesity and lack of physical activity. Additional causes of cancer include viruses and other biologic agents, family history of cancer, reproductive factors, prescription drugs or medical procedures, and environmental pollution.

**3-4-50 Deaths Account for Majority of All Deaths**

23% of all deaths are from Cancer

3-4-50 Deaths 53%

Other Deaths 47%

**Leading Causes of Cancer**

- Tobacco Use† 30%
- Poor Diet†/Obesity/Lack of Exercise† 30%
- Other 40%

*Data Sources: 2016 Vermont Vital Statistics  
† Behaviors that contribute to risk of developing cancer.*
CANCER AND 3-4-50

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Increased Likelihood of Cancers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excess Weight</td>
<td>Cancers of the breast (postmenopausal), colon and rectum, uterus and corpus, thyroid, pancreas, kidney, esophagus, gallbladder, ovary, liver, meninges, gastric cardia, multiple myeloma.</td>
</tr>
<tr>
<td>Tobacco</td>
<td>Cancers of the lung, trachea, and bronchus, the larynx (voice box), mouth, lips, esophagus, pharynx, bladder, kidney and renal pelvis, liver, stomach, pancreas, colon and rectum, cervix, and acute myeloid leukemia.</td>
</tr>
</tbody>
</table>

CANCER AND OBESITY

Overweight and obesity are associated with an increased risk of many types of cancer. Lack of physical activity and nutrition are the main contributors to obesity. Approximately 30% of the cancers diagnosed in the U.S. are linked to these risk factors.

The incidence of and mortality from obesity-associated cancers for Vermont men and women is not different compared to the U.S. However, 63% of Vermont adults reported being either overweight or obese (BRFSS, 2017), placing them at increased risk of cancer, cardiovascular disease, diabetes and lung disease.

**Obesity Associated Cancers, Vermont, 2011-2015**

<table>
<thead>
<tr>
<th></th>
<th>Incidence Rate per 100,000</th>
<th>New Cases (per year)</th>
<th>Mortality Rate per 100,000</th>
<th>Deaths (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Obesity Associated Sites</td>
<td>156.3</td>
<td>1,284</td>
<td>60.9</td>
<td>501</td>
</tr>
</tbody>
</table>

Data Sources: Vermont Cancer Registry, Vermont Vital Statistics
All rates are age adjusted to the 2000 U.S. standard population.

CANCER AND TOBACCO

Tobacco use is the number one cause of preventable death. People who use tobacco products or who are regularly around secondhand smoke have an increased risk of many different cancers. Lung cancer is the most common tobacco-associated cancer in Vermont and is the leading cause of cancer death in Vermont and the U.S.

The incidence of and mortality from tobacco-associated cancers for Vermont men and women is not different compared to the U.S. However, 17% of Vermont adults reported smoking tobacco (BRFSS, 2017), placing them at increased risk of cancer, cardiovascular disease, diabetes and lung disease.

**Tobacco Associated Cancers, Vermont, 2011-2015**

<table>
<thead>
<tr>
<th></th>
<th>Incidence Rate per 100,000</th>
<th>New Cases (per year)</th>
<th>Mortality Rate per 100,000</th>
<th>Deaths (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Tobacco Associated Sites</td>
<td>167.6</td>
<td>1,365</td>
<td>98.2</td>
<td>796</td>
</tr>
<tr>
<td>Lung, Bronchus, and Trachea Cancer</td>
<td>54.7</td>
<td>453</td>
<td>45.3</td>
<td>369</td>
</tr>
</tbody>
</table>

Data Sources: Vermont Cancer Registry, Vermont Vital Statistics
All rates are age adjusted to the 2000 U.S. standard population.
CANCER SURVIVORSHIP AND HEALTH BEHAVIORS

Cancer survivors face unique challenges to their physical health and maintaining a healthy lifestyle. Survivors are at greater risk for recurrence and for developing secondary cancers due to the effects of treatment, unhealthy lifestyle behaviors, underlying genetics or risk factors that contributed to the first cancer.

Tobacco
Quitting smoking after a cancer diagnosis has been proven to increase survival rates, reduce risk of secondary cancers, improve treatment response and reduce treatment side effects as well as provide an improved quality of life.

Obesity
Adopting or maintaining a healthy lifestyle after a cancer diagnosis can reduce morbidity and mortality from cancer and other chronic diseases. Reducing excess body weight through good nutrition and regular exercise can enhance the quality of life and extend the lifespan of cancer survivors. It can also reduce the risk of developing new cancer or a recurrence of the original cancer and experiencing treatment side effects.

Vermont Cancer Survivors
Adult cancer survivors in Vermont were significantly more likely to report being current smokers than Vermont adults who never had a cancer diagnosis (24% vs 17%, BRFSS, 2015-2017). There were no differences between adult Vermont cancer survivors and those never diagnosed with cancer in the percentage eating fewer than five servings of fruits and vegetables daily or in the percentage failing to meet aerobic physical activity recommendations.

Health Behaviors that Contribute to Chronic Disease in Adults

All rates are age adjusted to the 2000 U.S. standard population.

For more information on the data presented here, email 3-4-50@vermont.gov.