June 13, 2019

Rachel Levine, M.D.
Secretary of Health
Pennsylvania Department of Health

Dear Dr. Levine:

Enclosed is Pennsylvania’s new 2019-2023 Cancer Control Plan. As you may be aware, Pennsylvanians have a one in two lifetime chance of developing cancer and a one in five lifetime chance of dying from cancer. With such high stakes, cancer control must continue to be a priority for public health initiatives across the Commonwealth.

Pennsylvania’s new 2019-2023 Cancer Control Plan lays out a path for the next five years, setting clear goals and comprehensive strategies for addressing the continuum of cancer care across prevention, screening, diagnosis and treatment, and survivorship through end-of-life care.

The Pennsylvania Cancer Control, Prevention and Research Advisory Board adopts this plan, developed in partnership with its Data Advisory Committee, the Pennsylvania Cancer Coalition and the Pennsylvania Comprehensive Cancer Control Program. The board appreciates the valuable input provided by the coalition and its diverse membership representing clinical communities, public and private organizations, and cancer survivors. Together, we recognize that state and federal government funding can no longer develop and sustain public health efforts. We must collaborate to share the resources, skills and opportunities to promote the best and promising practices of public health.

There is challenging work to be accomplished over the next five years to achieve a healthier Pennsylvania. We urge you to join with us to be effective and successful in this endeavor.

Sincerely,

Margaret O’Grady, MSN, OCN, FAAMA
Vice-chair, Pennsylvania Cancer Control, Prevention and Research Advisory Board

Kate A. Mastalski, CHES
Co-chair of the Pennsylvania Cancer Coalition

Mark J. Wojtowicz, MS, MBA
Co-chair of the Pennsylvania Cancer Coalition
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Introduction

CANCER IN PENNSYLVANIA (2016)

<table>
<thead>
<tr>
<th></th>
<th>79,000</th>
<th>28,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIAGNOSED WITH CANCER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIED OF CANCER</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CANCER is the 2nd LEADING CAUSE OF DEATH after heart disease

There are more than 650,000 Pennsylvanians living with cancer, including those newly diagnosed and those diagnosed with invasive cancer in the past.

<table>
<thead>
<tr>
<th></th>
<th>Men have</th>
<th>Blacks/African Americans have similar incidence* yet 22% higher mortality* than Whites</th>
</tr>
</thead>
<tbody>
<tr>
<td>13% higher incidence*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41% higher mortality*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>than Women</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LUNG AND BRONCHUS CANCER LEADS CANCER DEATHS IN MEN AND WOMEN**

Lung and bronchus cancer is the leading cause of cancer death in men followed by cancers of the prostate, colon and rectum, pancreas and liver.

Lung and bronchus cancer is the top cause of cancer death in women, followed by cancers of the breast, colon and rectum, pancreas and ovary.
Plan Purpose

The 2019-2023 Pennsylvania Cancer Control Plan (Cancer Plan) is a guide for the many organizations, institutions and agencies working in cancer control to prevent the disease, improve early diagnosis, treat all cancer patients with the most appropriate and effective therapies, and improve cancer survivors’ quality of life. The Cancer Plan guides statewide efforts for five years to ensure that resources from state, federal and other sources are targeted to make the greatest impact on Pennsylvania’s cancer burden.

VISION
Eliminate cancer burden for all Pennsylvanians, regardless of age, gender, race, ethnicity, and social, economic and physical determinants of health

MISSION
Reduce cancer burden through a collaborative process in which partners strategically leverage resources across the cancer care continuum to reduce cancer risk, find cancers earlier, improve treatments, and optimize survivorship

Plan Structure and Preparation

The Cancer Plan presents an accountable framework for cancer control activities. It directs attention and prioritizes efforts to the most preventable cancers, detectable cancers with the highest rates of incidence, new technologies for treating cancer, and the areas of care that can enhance survivorship.

The majority of the 15 goals have a measurable baseline and five-year target to establish the direction and scale of impact. Strategies for achieving these targets were selected by cancer stakeholders for their relevance to Pennsylvania’s systems and culture. They are evidence-based whenever possible and encourage implementation via CDC’s four domains of chronic disease prevention: 1) Policy, Systems and Environmental Approaches, 2) Health Systems Interventions, 3) Community-Clinical Linkages, and 4) Surveillance and Epidemiology. Strategies are numbered throughout the plan for reference; no prioritization of these strategies is implied.

Policy, systems and environmental (PSE) change approaches are particularly effective in making long-term strides in disease control that are sustainable and are highlighted throughout the plan with this symbol: PSE.

The Cancer Plan was developed by a broad stakeholder group working in all aspects of cancer control. The Pennsylvania Comprehensive Cancer Control Program led an interactive plan development process with these stakeholders to define goals and strategies for the 2019-2023 period. During four planning sessions, program leaders and stakeholders:

• reviewed the 2013-2018 plan and progress made in managing the cancer burden during that period;
• established priority cancers for Pennsylvania;
• developed measurable goals for the cancer care/control spectrum and priority cancers; and
• identified and selected strategies, based on ways people and organizations are already working, plan to work, and are willing to work together in the years ahead.
Cancer Control and Plan Coordination

State-level cancer control planning is a multi-pronged approach, led by and implemented through the following organizations.

- **Pennsylvania Department of Health**
- **CAB** Pennsylvania Cancer Prevention and Research Advisory Board
- **Breast and Cervical Cancer Early Detection Program**
- **Cancer Registry**
- **Comprehensive Cancer Control Program**
- **PCC** Pennsylvania Cancer Coalition
- **DAC** Data Advisory Committee

### Pennsylvania Cancer Control, Prevention and Research Advisory Board

Cancer control planning begins with the Cancer Control, Prevention and Research Advisory Board (Cancer Advisory Board or CAB), the legislatively created board established in 1980 to advise the Pennsylvania Secretary of Health and report to the Governor and the General Assembly with respect to cancer control, prevention and research in Pennsylvania. The CAB oversees Cancer Plan development and ensures the implementation of cancer-related prevention, education, training and research through the Department of Health. CAB members are distinguished professionals in the fields of medicine, oncology nursing, health care administration, public health and community health nursing as well as representative consumers, as established by law. Ten members are appointed by the Governor with the consent of the Senate; the final seat is held by the Secretary of Health or his or her designee.

The CAB has two standing committees to implement its mission, goals and functions: the Pennsylvania Cancer Coalition and the Data Advisory Committee. Ad hoc committees are established as needed.

### Pennsylvania Cancer Coalition (PCC)

The PCC is a statewide cancer coalition. Its mission is to engage organizations and other cancer stakeholders in implementing the Pennsylvania Cancer Control Plan through its sub-committees and work groups. Its governance includes co-chairs and an Executive Team. Membership is open to all cancer stakeholders, including private and non-profit organizations, health care providers and organizations, business coalitions, academic institutions, local regional and state government agencies, researchers, cancer survivors, and individuals.

### Data Advisory Committee (DAC)

The mission of the Data Advisory Committee is to ensure cancer surveillance data is utilized to identify targeted populations and communities where cancer interventions should be targeted and to evaluate the impact of such interventions. It provides data analysis and produces materials to help people understand research and findings in cancer in Pennsylvania. Its members represent the Pennsylvania Cancer Registry, Bureau of Epidemiology, Bureau of Health Statistics and Research and Division of Cancer Prevention and Control within the Department of Health. External partners are added on an ad hoc basis depending on the project.
The Pennsylvania Comprehensive Cancer Control Program (CCCP)

The Pennsylvania Comprehensive Cancer Control Program in the Division of Cancer Prevention and Control of the Pennsylvania Department of Health monitors public health, establishes statewide goals for cancer control, and implements and evaluates cancer control initiatives to address the cancer burden. It works in conjunction with the PCC to address prevention, detection, treatment and survivorship and to ensure public health efforts are targeted to those populations that need the most help.

Pennsylvania Breast and Cervical Cancer Early Detection Program (BCCEDP)

The Department of Health provides breast and cervical cancer screening services to low income, uninsured or underinsured Pennsylvanians. It provides free mammograms and Pap tests to those who qualify in over 100 provider sites throughout the state. The sites are operated by hospitals, health centers and family planning agencies. To qualify, candidates must:

- be 40 to 64 years of age (under 40 with symptoms) for breast cancer screening;
- be 21 to 64 years of age for cervical cancer screening;
- have no insurance or limited insurance, and;
- have low to moderate income.

Those diagnosed with breast or cervical cancer can receive free health care, including health care for medical needs unrelated to a breast or cervical cancer diagnosis, throughout their course of treatment for cancer or a pre-cancerous condition of the breast or cervix. This benefit is available through the Breast and Cervical Cancer Prevention and Treatment Program, administered by the Department of Human Services.

Pennsylvania Cancer Registry (PCR)

The Pennsylvania Cancer Registry is a population-based cancer incidence registry for the state of Pennsylvania in operation since 1982 as mandated by the Pennsylvania Cancer Prevention, Control and Research Act of 1980 with statewide reporting since 1985. Staff are responsible for the records of demographic, diagnostic, staging and treatment information on all patients diagnosed and treated at hospitals, laboratories, other health care facilities and by healthcare practitioners in Pennsylvania.
The Burden of Cancer in Pennsylvania

Data is critical to the understanding and management of the cancer burden in Pennsylvania. This summary identifies state trends in risk factors, cancer prevalence and mortality using the most recent data available at the time of plan preparation. More current data becomes available annually. Readers are encouraged to visit the full Burden of Cancer in Pennsylvania Report (2019) and Pennsylvania’s new Cancer Statistics Dashboard for the most recent cancer data.

### PENNSYLVANIA’S RISK FACTORS

- **AGE (2016)**
  - 57% of cancer cases occur in seniors 65+

- **INCOME (2017)**
  - Approximately 15% live below poverty level

- **NUTRITION (2017)**
  - Only 8% eat 5+ fruits and vegetables daily

- **PHYSICAL ACTIVITY (2017)**
  - 21% get no physical activity per week

- **ALCOHOL USE (2017)**
  - 6% are chronic drinkers

- **TOBACCO USE (2017)**
  - 19% of adults are current smokers

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2019-2023 Pennsylvania Cancer Control Plan
Age

**Burden:** Cancer risk increases with age. The older you are, the more likely to get cancer. An estimated 56.5 percent of new cancer cases occur in people over age 65. (Pennsylvania Cancer Registry Dataset)

**Population at Risk:** 15.4 percent of Pennsylvanians are 65 years age older, and 8.1 percent of Pennsylvanians over the age of 65 live in poverty. (2016 American Community Survey)

Education and Income

**Burden:** Pennsylvanians with lower educational attainment and lower annual income are less likely to be screened for cancer, which puts them at a higher risk of being diagnosed with cancer later when treatment is less likely to be effective. (2016 Pennsylvania Behavioral Risk Factor Surveillance Survey)

**Population at Risk:** 11.5 percent of Pennsylvanians have less than a high school education, and 14.7 percent live in poverty, earning between $12,500 and 25,000 per year. (2017 Pennsylvania Behavioral Risk Factor Surveillance Survey)

Lifestyle and behavioral choices also increase cancer risk. Cancer burden data does not reflect these personal choices; however, behavioral data indicate that adult populations are at risk.

Nutrition

**Qualitative Burden:** Pennsylvanians who lack a balanced diet have an increased risk of cancer.

**Population at Risk:** Only 8 percent of Pennsylvania adults indicated that they ate five or more fruits or vegetables daily; 24 percent of adults reported they consumed two or more fruits or 100 percent fruit juice daily; and 11 percent of adults reported they consumed three or more vegetables daily. (2017 Pennsylvania Behavioral Risk Factor Surveillance Survey)

Physical Activity

**Qualitative Burden:** Pennsylvanians who lead a sedentary lifestyle with little to no physical activity have an increased risk of cancer.

**Population at Risk:** Only 21 percent of Pennsylvania adults reported they met the Centers for Disease Control and Prevention recommendations for physical activity weekly; 53 percent met the aerobic recommendations of 150 minutes of moderate physical activity and participated in 150 minutes of physical activity per week; and 30 percent met the muscle strengthening recommendations at least twice a week; 27 percent did not engage in any physical activity per week. (2017 Pennsylvania Behavioral Risk Factor Surveillance Survey)

Alcohol Use

**Qualitative Burden:** Drinking alcohol raises the risk of some cancers.

**Population at Risk:** 6 percent of adults reported they were at risk for problem drinking, defined as adult men having more than two drinks per day and adult women having more than one drink per day; 6 percent of adults indicated that they were chronically drinking, defined as having an average of two drinks or more every day for the past 30 days. (2017 Pennsylvania Behavioral Risk Factor Surveillance Survey)

Tobacco Use

**Qualitative Burden:** Using tobacco raises the risk of some cancers.

**Population at Risk:** 19 percent of adults reported they are current smokers and 4 percent of Pennsylvania adults reported they currently use chewing tobacco, snuff or snus. (2017 Pennsylvania Behavioral Risk Factor Surveillance Survey)
Incidence and Mortality

In 2017, cancer was the second leading cause of death in Pennsylvania and was one of the leading chronic diseases affecting adults. Detailed data from 2015 indicates that cancer was diagnosed at a rate of 474.6 per 100,000 Pennsylvanians. Of those with a cancer diagnosis, cancer was the cause of death in 166.2 per 100,000.

(Pennsylvania Cancer Registry Dataset and Pennsylvania Death Certificate Dataset)

Disparities

Cancer affects all populations but not all populations equally. The incidence of cancer varies by gender, race/ethnicity and type of cancer.

Disparities by Sex

Males have higher incidence and mortality rates than females for nearly all non-female-specific cancers, except breast cancer and thyroid cancer. The overall age-adjusted cancer incidence rate is 12.9 percent higher among males, and overall age-adjusted mortality rate is 41.4 percent higher among males.

(Pennsylvania Cancer Registry Dataset and Pennsylvania Death Certificate Dataset).
Disparities by Race

Blacks and African Americans have higher incidence and mortality rates than all other race/ethnicity categories for many types of cancers. The overall age-adjusted incidence rate is 479.0 per 100,000, and 1.4 percent higher than whites.

The overall age-adjusted mortality rate is 194.2 per 100,000 and 19.4 percent higher than whites. (Pennsylvania Cancer Registry Dataset and Pennsylvania Death Certificate Dataset).

Disparities by Sex and Race

Blacks and African Americans males had an overall age-adjusted cancer incidence rate of 538.6 per 100,000 in 2015, compared to 501.6 for white males. Black and African American females had an overall age-adjusted cancer incidence rate of 443.8 per 100,000 in 2015, compared to 456.5 for white females. With few exceptions, black male incidence and mortality rates are the highest in all race/sex/ethnicity categories.

Net Survival

More than 650,000 Pennsylvanians are alive with active cancer or a history of cancer. Of those diagnosed between 2008 and 2014, the five-year net survival rate is 63.6 percent. Net survival varies substantially for different types of cancers.

Overall, the net cancer survival rate among Pennsylvanians has not changed much from 2001 to 2009. No primary site net survival rate decreased significantly, but lung and bronchus and myeloma both increased, with myeloma increasing the most over the period, from 31.4 percent to 51.8 percent.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Site</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Thyroid</td>
<td>98.2</td>
</tr>
<tr>
<td>2</td>
<td>Prostate</td>
<td>95.5</td>
</tr>
<tr>
<td>3</td>
<td>Testis</td>
<td>92.4</td>
</tr>
<tr>
<td>4</td>
<td>Melanoma</td>
<td>89.2</td>
</tr>
<tr>
<td>5</td>
<td>Breast (all)</td>
<td>88.0</td>
</tr>
<tr>
<td>6</td>
<td>Hodgkin Lymphoma</td>
<td>85.6</td>
</tr>
<tr>
<td>7</td>
<td>Uterus</td>
<td>78.1</td>
</tr>
<tr>
<td>8</td>
<td>Bladder</td>
<td>77.6</td>
</tr>
<tr>
<td>9</td>
<td>Kidney</td>
<td>71.5</td>
</tr>
<tr>
<td>10</td>
<td>Non-Hodgkin Lymphoma</td>
<td>70.0</td>
</tr>
<tr>
<td>11</td>
<td>Colorectal</td>
<td>63.1</td>
</tr>
<tr>
<td>12</td>
<td>Cervix</td>
<td>61.6</td>
</tr>
<tr>
<td>13</td>
<td>Oral cavity</td>
<td>60.5</td>
</tr>
<tr>
<td>14</td>
<td>Larynx</td>
<td>59.3</td>
</tr>
<tr>
<td>15</td>
<td>Leukemia</td>
<td>56.5</td>
</tr>
<tr>
<td>16</td>
<td>Myeloma</td>
<td>51.1</td>
</tr>
<tr>
<td>17</td>
<td>Ovary</td>
<td>42.6</td>
</tr>
<tr>
<td>18</td>
<td>Stomach</td>
<td>31.5</td>
</tr>
<tr>
<td>19</td>
<td>Brain</td>
<td>30.8</td>
</tr>
<tr>
<td>20</td>
<td>Lung</td>
<td>20.6</td>
</tr>
<tr>
<td>21</td>
<td>Esophagus</td>
<td>19.3</td>
</tr>
<tr>
<td>22</td>
<td>Liver</td>
<td>15.7</td>
</tr>
<tr>
<td>23</td>
<td>Pancreas</td>
<td>10.9</td>
</tr>
</tbody>
</table>
State-led efforts to prevent and control cancer are focused on cancers with the most significant incidence and mortality burden (rates and trends) and opportunities for evidence-based interventions, such as screening for early detection.

Breast, lung and bronchus, prostate, colorectal and bladder cancer were the most commonly diagnosed invasive cancers in 2015 and accounted for 41,499 or 57.2 percent of all invasive cancers diagnosed. Lung and bronchus, colorectal, pancreatic, breast and prostate cancers led cancer deaths and accounted for 15,372 or 60.7 percent of all cancer deaths.

In addition, cancer cases are increasing at a statistically significant rate for other primary cancer sites: melanoma, liver and bile duct, myeloma, pancreatic, oral cavity and leukemia. Similarly, cancer deaths are rising rapidly for liver and bile duct and pancreatic cancers.

From these rankings, Pennsylvania targets liver, lung and oral cancers for cancer prevention and breast, cervical, colorectal, lung and prostate cancers for screening over the next five years.

Breast, lung and bronchus, prostate, colorectal and bladder cancer were the most commonly diagnosed

### Cancers with Highest Number of Cases and Deaths with Trend, 2015

<table>
<thead>
<tr>
<th>Cancer</th>
<th>Number of Cases</th>
<th>Trend</th>
<th>Cancer</th>
<th>Number of Deaths</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>11,179</td>
<td>▲</td>
<td>Lung</td>
<td>7,377</td>
<td>▼</td>
</tr>
<tr>
<td>Lung</td>
<td>10,813</td>
<td>▼</td>
<td>Colorectal</td>
<td>2,557</td>
<td>▼</td>
</tr>
<tr>
<td>Prostate</td>
<td>8,583</td>
<td>▼</td>
<td>Pancreas</td>
<td>2,082</td>
<td>▲</td>
</tr>
<tr>
<td>Colorectal</td>
<td>6,873</td>
<td>▼</td>
<td>Breast</td>
<td>2,049</td>
<td>▼</td>
</tr>
<tr>
<td>Bladder</td>
<td>4,051</td>
<td>▼</td>
<td>Prostate</td>
<td>1,307</td>
<td>▼</td>
</tr>
</tbody>
</table>

▼Improving trend  ▲Unchanged trend  ▲Worsening trend

### Cancers with Highest Rate Increases for Incidence and Mortality, 2015*

<table>
<thead>
<tr>
<th>Cancer</th>
<th>Incidence Change</th>
<th>Cancer</th>
<th>Mortality Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melanoma</td>
<td>4.6%</td>
<td>Liver</td>
<td>2.7%</td>
</tr>
<tr>
<td>Liver</td>
<td>4.0%</td>
<td>Uterus</td>
<td>1.2%</td>
</tr>
<tr>
<td>Myeloma</td>
<td>1.7%</td>
<td>Pancreas</td>
<td>0.6%</td>
</tr>
<tr>
<td>Pancreas</td>
<td>1.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral cavity</td>
<td>1.4%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*average annual percent change

Source: 2015 Pennsylvania Cancer Registry Dataset and Pennsylvania Cancer Death Certificates
Factors and Trends

Health outcomes for people lacking access to quality health care are markedly lower than those for whom services are locally available, affordable and culturally competent. Pennsylvania’s health outcomes are particularly affected by the following factors and trends:

**Increasing demand vs declining supply of health care providers** – Pennsylvania has the fifth largest population age 50 and over in the United States, increasing by a staggering 38.3 percent to over 1.4 million residents. This increases the demand for health care services and the need for specialized care for older people at a time when the number of physicians in the state is decreasing.

**Distance to medical care** – While Pennsylvania is the sixth most populated state in the nation, approximately 3.5 million live in a rural county. These citizens are more likely to have poorer health status, especially in relation to cancer risk factors, such as obesity and tobacco use, than their urban counterparts due to the shortage of local health care services and the time and cost of travel to services in urban areas.

**Transportation barriers** – Low-income Pennsylvanians have limited access to convenient, reliable and affordable transportation even when health care is locally available, resulting in missed appointments and poor disease management. Medicaid provides a transportation benefit, yet low-income patients may not have the literacy level to navigate complex program regulations.

**Cost of health care and access to health insurance** – According to the 2015 US Census, Pennsylvania ranks eighth nationwide for the number of uninsured residents age 50 to 64 that are at or below 250 percent of the poverty level. About 8.8 percent of Pennsylvanians do not have health insurance coverage, with males age 18 to 34 having the highest rate of being uninsured at 20.0 percent. Rural counties have higher rates of uninsured than urban counties. Even for Medicare recipients, cost appears to be one of the significant factors associated with lack of access to care, along with perceived lack of responsiveness to patient concerns by physicians.¹

Cultural competency – Pennsylvania’s population continues to become more culturally diverse and requires a network of health care professionals who can effectively communicate with patients of all ages, income and educational levels, races, ethnicities and gender identities.

Addressing Access to Care

**Telehealth**

Telehealth or telemedicine, the use of electronic information and telecommunications technologies to support long-distance clinical health care and patient and professional health-related education, could increase health care access for Pennsylvanians in remote locations. The Center for Rural Pennsylvania estimates universal telehealth implementation could result in a 66 percent savings in 20 years and health care would be of higher quality.²

Currently, areas of the state still lack the broadband infrastructure needed for telehealth to provide high quality imagery and aid in real-time decision-making. Pennsylvania must invest in infrastructure and persuade health care and insurance providers to utilize these alternate strategies.

**Community Health Workers**

A community health worker (CHW) is a frontline public health worker who is a trusted member of the community and/or has an unusually close understanding of the community. This trusting relationship enables the community health worker liaison between health and social services and the community, facilitating the community’s access to services and improving the cultural competence of service delivery. A community health worker also builds health knowledge and self-sufficiency among individuals and the community at-large through a range of activities such as outreach, community education, informal counseling, social support and advocacy.

Research indicates the proven effectiveness of community health workers in identifying and addressing barriers to cancer screening or treatment recommendations and working with patients to negotiate tailored plans of care.

**Project ECHO** (Extension for Community Healthcare Outcomes) is a multidisciplinary telementorship model of health care delivery to improve primary care provider confidence in managing patients with complex cases in medically under-served communities. Project ECHO is a knowledge-sharing network, using multi-point videoconferencing to conduct virtual clinics with community providers. While Children’s Hospital of Philadelphia and the University of Pittsburgh are ECHO partners, this project has not been expanded into the management of cancer care.

GOAL 1  Increase access to regular health care for Pennsylvanians

In Pennsylvania, there is a substantial gender disparity in the population with a regular health care provider. Fewer men than women have a provider, which has implications for access to prevention, screening/early detection and survivorship. This disparity greatly affects prostate cancer screening and early detection in particular, especially since new screening recommendations suggest that men make a joint decision with their providers — something unlikely to happen without a provider. The most recent data available indicate that 85.5 percent of men have a provider (2016 Behavioral Risk Factor Surveillance System); by 2023, the goal is to increase by 1.5 percentage points to 87.0 percent.

Health Equity

Objective

Increase the percentage of Pennsylvanians with a regular health care provider by 1.5 percentage points

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<thead>
<tr>
<th>Year</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>85.5%</td>
</tr>
<tr>
<td>2023</td>
<td>87.0%</td>
</tr>
</tbody>
</table>

Baseline

Source: Behavioral Risk Factor Surveillance System, 2017 Dataset

Strategies

1. Use culturally and linguistically appropriate health education materials.
2. Provide culturally appropriate patient navigation services to low income individuals to a medical home.
3. Provide cultural competency training for health care providers.
4. Expand primary care services (e.g., free clinics, charitable clinics, rural health clinics, Federally Qualified Health Centers [FQHC]) in underserved areas.
5. Promote the use of community health workers (CHW) to improve access to and coordination of health care.
7. Investigate multidisciplinary telementorship models, such as Project ECHO.
GOAL 2  Increase health literacy: 
Assist Pennsylvanians in comprehending health information and making appropriate health decisions

Health literacy is considered a stronger predictor of an individual’s health status than age, income, employment status, educational attainment or racial/ethnic group.³

Of the Pennsylvanians who said it was somewhat difficult to understand information from doctors, nurses and other health professionals, 20 percent have less than a high school education and 18 percent make less than $15,000 per year. (2016 Behavioral Risk Factor Surveillance System)

Pennsylvania’s initiatives to address health literacy include:

- Increasing the number of peer educators trained to conduct patient activation programs
- Increasing the number of medical providers with a knowledge of health literacy and effective patient/provider communication techniques
- Implementing health literacy interventions to promote health literacy among health system(s) patient and/or provider population
- Addressing the literacy needs of immigrant (English as a Second Language) and rural residents

The Pennsylvania Department of Health invested in health literacy improvement by awarding funds to the Health Care Improvement Foundation (HCIF) to establish a regional collaborative for expanding health literacy activities in southeastern Pennsylvania. From this, the statewide Pennsylvania Health Literacy Coalition and Thomas Jefferson University created modules to train health providers to use health literacy strategies in interpersonal communications at all points of contact; to provide easy access to health information and services; to integrate health literacy into planning, evaluation, patient safety and quality improvement; and to engage leadership to include health literacy in the mission, structure and operations of health systems.

³ Weiss, B.D., Health Literacy and Patient Safety: Help Patients Understand, 2007
Strategies

1. Deliver cancer prevention, screening, treatment and follow-up information tailored to appropriate age, culture, language and education levels.

2. Characterize the extent and scope of health literacy gaps and appropriate awareness-raising steps.

3. Expand health literacy activities across Pennsylvania, targeted to closing gaps.

4. Expand health literacy interventions in hospitals and health systems.  

5. Increase the number of peer educators trained to conduct patient activation programs.

6. Provide health care professionals and staff with effective techniques to communicate clearly with patients.

7. Evaluate the most effective evidence-based approaches for improving health literacy.

**Health Literacy**

**Objective**

*Increase the percentage of patients that report that their doctors always communicated well by 3 percentage points*

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
<th>Baseline</th>
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<tr>
<td>2017</td>
<td>64%</td>
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<td>2023</td>
<td>67.0%</td>
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Source: Hospital Consumer Assessment of Healthcare Providers and Systems Patient Survey, 2017
Prevention Through Healthy Behaviors

Many Pennsylvanians fall short in adopting healthy behaviors that can prevent or reduce the risk of cancer. Cancer control must focus on motivating people to change their attitudes and behaviors toward food, physical activity, tobacco use, radon and ultraviolet light exposure, and vaccinations.

GOAL 3
Increase the number of adolescents ages 11 and 12 who are vaccinated against HPV

Human papillomavirus (HPV) infection is the cause of most cervical cancers as well as many oral and anal cancers and, therefore, affects both men and women. The Centers for Disease Control and Prevention estimate about one in four people are currently infected in the United States.

HPV vaccination can prevent these cancers from ever developing. While doctors routinely screen for cervical cancer, there are no recommended cancer screening tests to detect the other five types of cancers caused by HPV. The two-dose HPV vaccination is recommended for girls and boys 11 to 12 years old and for females through age 26 and males through age 21 who did not receive the HPV vaccine when they were younger. HPV vaccination may be given to males age 22 through 26 and is recommended for some males in this age group.

According to the 2017 National Immunization Survey-Teen, HPV vaccination rates are lowest among white teens in rural areas of the state. Pennsylvania’s HPV vaccination rates can be improved by further engagement of the medical and oral health community in the adoption of evidence-based strategies to improve rates in practices, medical homes and clinics. Medical and dental professionals can screen for HPV-related oral and oropharyngeal cancer through a visual and physical exam and asking about symptoms. Oral cancer screenings are an effective means of finding cancer at its early, highly curable stages.

Currently, Pennsylvania does not have mandatory reporting for all vaccinations administered; changing this policy would create an accurate data source for vaccination rates for HPV as well as other important vaccines, an integral step for improving HPV coverage levels.
**Strategies**

1. Promote the HPV vaccine as a prevention method for cancer.
2. Educate medical and oral health professionals about the importance of HPV vaccination.
3. Educate the wide range of influencers about the importance of HPV vaccination.
4. Advocate for respected partners to provide educational outreach about the benefits of HPV vaccination.
5. Implement provider vaccine reminder and recall systems targeted at adolescents beginning at age 12.
6. Implement mandatory reporting of all vaccines in Pennsylvania.

**HPV Vaccination**

**Objective**

*Increase the percentage of adolescents, male and female, aged 13 to 17 years, who complete the two-dose HPV or are up to date with the vaccination series by 20 percentage points*

<table>
<thead>
<tr>
<th>Year</th>
<th>Target (%)</th>
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<td>57.4%</td>
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<td>2023</td>
<td>77.4%</td>
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*Source: National Immunization Survey—Teen Data, 2016*

**GOAL 4 Prevent lung cancer by reducing tobacco use and abating radon exposure**

Pennsylvanians have a one in 14 lifetime risk of developing lung and bronchus cancers and a one in 19 lifetime risk of dying from these cancers. These cancers disparately affect black males with less than a high school education who live below the poverty level. Environmental carcinogens such as tobacco and radon are the leading causes of lung cancer in Pennsylvania.

**Tobacco**

People who use tobacco or who are regularly exposed to tobacco smoke have an increased risk of many types of cancer. There is no safe level of tobacco use or exposure. A person who quits tobacco use or reduces their exposure to tobacco smoke realizes gains in health and life expectancy immediately. Tobacco use is most prevalent across the northern and southwestern regions of the state, in Philadelphia, and among low income populations.

**Electronic Nicotine Delivery Systems**

The tobacco landscape has changed with consumers now using electronic nicotine delivery systems (ENDS) Electronic cigarettes, or e-cigarettes. These are also known as JUULs, "vapes" and "vape pens." Most e-cigarettes contain nicotine and can contain other harmful substances and flavorings sometimes called "e-juice," "e-liquid," "vape juice" or "vape liquid."
The American Lung Association is concerned about the rapid increase of youth using these products and the American Cancer Society strongly recommends that every effort be made to prevent the initiation of e-cigarettes by youth. Nicotine is highly addictive and can harm adolescent brain development, which continues into the early to mid-20s. A recent study from the University of North Carolina found that even in small doses, inhaling the two primary ingredients found in e-cigarettes — propylene glycol and vegetable glycerin — is likely to expose users to a high level of toxins and that the more ingredients a user is inhaling, the greater the toxicity. The United States Surgeon General defines e-cigarette use among youth as a significant public health concern and encourages steps to be taken by parents, educators and especially policymakers to discourage use of e-cigarettes.

42% of Pennsylvania's high school students have used an electronic vapor product (2017)

E-cigarette use by high school students increased by 78% from 2017 to 2018, leading the U.S. Surgeon General to call the use of these products among youth an epidemic.

Tobacco Cessation Strategies

1. Advocate for smoking cessation as part of employee orientation.
2. Integrate current cessation aid/resources and assisted referrals (text to quit, online quit coach, websites) into cessation programming.
3. Promote multi-component interventions that include counseling and nicotine replacement therapy (NRT) in the adult population, including older adults and cancer survivors.
4. Reduce client out of pocket expenses by securing comprehensive cessation coverage for private/public insurance and Medicaid.
5. Increase tobacco cessation by educating providers on all quit smoking products.

LUNG CANCER PREVENTION

Objective
Decrease the percent of current adult smokers by 4 percentage points

19.0% Baseline
2017
2023
15.0%
Target
Source: Behavioral Risk Factor Surveillance System, 2017 Dataset

Policy, Systems and Environmental Approach
Radon

Radon is the second leading cause of lung cancer in Pennsylvania and the United States. As a naturally occurring radioactive, carcinogenic gas, human exposure occurs primarily through inhalation and ingestion and can cause lung cancer.

Pennsylvania has some of the highest levels of radon in the United States. According to the Pennsylvania Department of Environmental Protection (DEP), more than 40 percent of Pennsylvania is considered Zone 1 with radon levels above the Environmental Protection Agency’s action guideline of 4 picocuries per liter. Radon testing and mitigation can be expensive, and many low-income homeowners cannot afford mitigation.

Radon Abatement Strategies

1. Increase awareness of the effects of radon as it relates to lung cancer.
2. Promote proven techniques to reduce exposure to radon by seeking sponsors to fund low-income radon mitigation and testing.
3. Increase community access to radon testing by developing local programs to test and mitigate low income housing through private and public partnerships and home inspection agencies.
4. Reduce exposure to radon in new or existing construction by embedding radon risk reduction in state and local building codes.
5. Increase the capacity of health care providers and staff to ask about radon testing in the patient’s home and provide educational and testing resources.
6. Increase testing in non-real estate transactions by promoting radon awareness to medical, public health and childcare communities.

Smoking rates are higher in low income, black populations, and radon has a multiplier effect on smokers, making smokers in high radon homes more likely to develop lung cancer. More than 85 percent of radon-induced deaths are among smokers.

The National Comprehensive Cancer Network recommends lung cancer screening beginning at age 50 for individuals with at least 20 pack-year of tobacco exposure and documented high radon exposure.

Pennsylvanians need a greater awareness of the effects of radon and its relation to lung cancer. Health care providers need to ask about radon testing, especially in homes with children. Communities need to work collaboratively in public and private partnerships to test and mitigate low income housing.

LUNG CANCER PREVENTION

Objective
Increase the number of radon positive homes with an operational mitigation system by 5 percent

Target 13,306

Baseline 12,672

Source: Pennsylvania Department of Environmental Protection, Microsoft Discover Database
GOAL 5 Prevent skin cancer

Pennsylvanians have a one in 40 lifetime risk of developing melanoma. Most cases of melanoma, the deadliest kind of skin cancer, are caused by exposure to ultraviolet (UV) light or radiation. Genetic factors, such as skin tone and family history, also contribute to a person’s risk.

Outdoor work or play increases UV exposure, particularly for construction workers, children and tourists. Pennsylvania has 121 state parks which host an average attendance of 36.5 million visits each year. Protective clothing and proper use of sunscreen can reduce skin exposure to natural sunlight. Education to raise awareness and convenient access to protective clothing and sunscreen are key to prevention.

1 in 40 risk of developing melanoma

Strategies

1. Engage school districts to adopt UV safety policies. PSE
2. Provide education to park visitors and worksite employees about sun-protective behaviors.
3. Implement educational approaches to encourage sun protection among visitors to recreational and tourism settings.
4. Engage employers to incorporate use of sunscreen and sun-protective clothing into worksite safety policies. PSE
5. Increase the availability of sun protective items, such as sunscreen, in parks and other outdoor recreational settings. PSE
6. Enlist local partners, such as outdoor recreation organizations, to sponsor sunscreen dispensers

SKIN CANCER PREVENTION

Objective
Increase the percent of melanomas diagnosed at early stage by 3 percentage points

Target 88.2%

Baseline 85.2%

Source: Pennsylvania Cancer Registry, 2015 Dataset
GOAL 6  Reduce obesity

With the decline in tobacco use, the combination of obesity, poor diet and lack of physical activity will likely become the leading cause of cancer. These conditions also negatively impact cancer survivorship, including quality of life, cancer recurrence, cancer progression and prognosis. Adipose (fat) tissue has been associated with increased risk of breast, endometrial, ovarian and other cancers. These cancer sites are directly surrounded by adipose tissue.

Obesity is more prevalent among blacks, Hispanics and males, especially in low income families, those with less than a high school education, and people with diabetes. Obesity is especially problematic outside of south central and southeast Pennsylvania. Significant interventions are needed to stabilize rapidly rising obesity rates. The five-year goal of slowing the rate of growth represents significant progress.

Local health departments, state and local government entities, and community-based organizations are working to decrease statewide obesity in adults and children by:

- Implementing food service guidelines to increase the availability of healthy foods in worksite, hospital and community settings, such as CDC’s Smart Food Choices: How to Implement Food Service Guidelines in Public Facilities
- Developing interventions supportive of breastfeeding;
- Embedding nutrition and physical activity standards within state early childhood education systems; and
- Supporting community planning and transportation interventions to increase safe and accessible physical activity and improve bicycle, pedestrian and transit systems.

32% of adults are obese
17% of children 10-17 are obese
Strategies

1. Educate the public on obesity as a controllable risk factor for cancer and other chronic diseases.

2. Work with medical providers to educate patients on prevention of chronic disease and weight loss strategies in a linguistically appropriate manner and to provide referrals to community resources.

3. Develop community- and trail-based campaigns to increase physical activity.

4. Collaborate with partners to establish new or improved pedestrian, bicycle or transit transportation systems integrated with new or improved land use or environmental design.

5. Encourage worksites to adopt wellness and breastfeeding policies.

6. Implement procurement policies to improve healthy behaviors such as healthy vending and meeting policies.

7. Increase the availability of healthy foods and nutrition policies in Feeding Pennsylvania member food banks and food pantries.

8. Collaborate with insurance companies to include in insurance plans evidence-based services for wellness and prevention programs (e.g., weight management, nutrition counseling, gym membership, and healthy living programs) provided by licensed qualified individuals and organizations.

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**ADULT OBESITY PREVENTION**

Objective

*Decrease the rate of adult obesity by 2 percentage points*

- **Baseline:** 32.0%
- **Target:** 30.0%

Source: Behavioral Risk Factor Surveillance System, 2017 Dataset
Strategies Specific to Preventing Childhood Obesity

1. Increase the number of birthing facilities participating in the Pennsylvania Department of Health's Keystone 10 program that implement maternity care practices supportive of breastfeeding.

2. Increase breastfeeding support through continuity of care by providing the Educating Practices/Physicians in their Communities Breastfeeding Education Support and Training (EPIC BEST) program to health care professionals.

3. Embed nutrition and physical activity standards in state early care and education systems by increasing the number of state policy and system supports for obesity prevention.

4. Provide technical assistance and training for Pennsylvania Nutrition and Physical Activity Self-Assessment for Child Care to early care and education centers.

5. Provide technical assistance and training for CDC’s evidence-based School Health Guidelines to school districts serving students in kindergarten through 12th grade.

CHILDHOOD OBESITY PREVENTION

Objective
Decrease the rate of childhood obesity by 1 percentage point

17.5% Baseline

2017 2023

Target 16.5%

Source: Behavioral Risk Factor Surveillance System, 2017 Dataset
GOAL 7  Expand liver cancer prevention efforts

Pennsylvania’s liver cancer incidence rate has increased over the past two decades, consistent with the national trend. From 1990 to 2015, the age-adjusted rate in Pennsylvania increased over 250 percent. Risk factors for liver cancer include poor diet, as well as infection with the hepatitis B virus (HBV) or hepatitis C virus (HCV).

While HCV has disparately affected the baby boomer generation born between 1945 and 1965, new hepatitis C virus infections are increasing most rapidly among 20- to 29-year-olds (2016 CDC). Because the hepatitis virus is primarily transmitted through contact with infected blood, the risk for new infections is high among people who inject drugs, regardless of age. Many people who inject drugs lack regular health care and are not diagnosed or treated.

In Pennsylvania, the incidence rate of hepatitis C among those aged 15 to 34 is projected to increase by 72 percent from the period 2016-2021 without public health intervention. Reducing the liver cancer burden must address the growth rate growth in HCV infection by:

- Reducing injection drug use;
- Testing for HCV, as well as HBV;
- Reducing excessive alcohol use;
- Combating obesity (and thus preventing nonalcoholic fatty liver disease); and
- Promoting other needed medical care.

Strategies

1. Increase knowledge among high-risk populations, including baby-boomers, the prison population and injection drug users.

2. Improve access to drug treatment and recovery services.

3. Increase knowledge among providers serving rural and under-served communities.

4. Implement provider vaccine reminder and recall systems targeting populations at high risk. **PSE**

5. Improve vaccination among special need populations such as the criminal justice system.

6. Advance alternative practices for pain management to reduce opioid use.

Liver cancer has increased over 250% from 1990-2015

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**LIVER CANCER PREVENTION**

**Objective**

*Reduce the growth of HCV among adolescents and young adults, aged 15 to 34 years, by 24.6 percent*

Target 301.7

Source: National Electronic Disease Surveillance System, 2016 Dataset
Screening and Early Detection of Priority Cancers

Pennsylvania’s cancer control efforts must ensure that Pennsylvanians are informed to make personal cancer screening and testing decisions in conjunction with their health care providers.4

GOAL 8  Increase breast cancer screening

Breast cancer is the most diagnosed cancer and the second leading cause of cancer death among Pennsylvania women. Only bronchus/lung cancer causes more deaths than breast cancer. Caucasian women are slightly more likely to develop breast cancer than black and African American women, but black and Africa American women are more likely to die of this cancer. Asian and Hispanic women have a lower risk of developing and dying from breast cancer. Breast cancer risk derives from a combination of factors, including a strong family history of breast cancer and inherited changes to breast cancer genes (BRCA1 and BRCA2). Other factors, such as dense breast tissue, previous noncancerous breast diseases, reproductive history, obesity and lack of physical activity are risk factors.

While breast screening remains an important tool for early detection for women of all income levels, the percentage of low income5 Pennsylvania women who are screened is far less than among affluent women. Targeted outreach to increase screening rates must ensure that both personal and logistical barriers to screening are being addressed. Community health workers can play a vital role in educating and empowering the low-income population to be screened for breast cancer by developing trusting, one-to-one relationships with those at risk.

Breast and cervical screenings are available for low-income, uninsured or underinsured residents through the Pennsylvania Breast and Cervical Cancer Early Detection Program (see page 7), which screens approximately 10,000 Pennsylvanians each year. Screenings may also be covered through the Susan G. Komen organization for those who don’t qualify for the program. Those diagnosed may be eligible for free treatment through the Breast and Cervical Cancer Prevention and Treatment program administered by the Pennsylvania Department of Human Services. In 2015, Pennsylvania became the first state in the nation to require insurers, including Pennsylvania Medicaid, to cover tomosynthesis or 3D mammograms for those over the age of 40 at the same coverage level as traditional 2D mammograms, due in large part to advocacy.

4 The U.S. Preventive Services Task Force makes recommendations on screening tests and counseling services that are provided in clinical settings and are intended to prevent disease or improve health outcomes. Complementing their work, the Community Preventive Services Task Force (CPSTF) assists organizations in implementing evidence-based interventions in community settings. Its findings are published in The Guide to Community Preventive Services (The Community Guide).

5 Low income definition is defined as women with <$25,000 annual income.
Three-dimensional mammograms improve the detection of invasive tumors, especially in dense breast tissue. The Community Preventive Services Task Force (CPSTF) recommends multi-component interventions or using a combination of eleven possible individual interventions to increase breast, cervical and colorectal cancer screening rates among under-served populations. Strategies for breast, cervical and colorectal screening within this plan are separated into the CPSTF categories of increasing community demand, increasing community access and increasing provider delivery of screening services.

1 in 7 develop breast cancer  
1 in 37 die of breast cancer

Multi-component Breast Cancer Screening Strategies

Increase Community Demand
1. Provide group education to inform patients about risk factors, screening guidelines and the importance of early detection of cancer.
2. Utilize one-on-one education to provide patients information on screening recommendations and screening test options.
3. Engage women in education and scheduling at worksites and where high-need women access other services (e.g., food banks).
4. Implement tailored client reminders to inform patients that they are due for screening.
5. Conduct small media awareness campaigns about the importance of early detection.

Increase Community Access
6. Use community health workers to facilitate access to timely screenings.
7. Engage community health workers to educate consumers, link consumers to clinics, and provide transportation and other solutions to address barriers to care.
8. Advocate for employers to provide support or paid time off for employees to receive their breast cancer screening.
9. Promote access to screening by reducing structural barriers (e.g., transportation assistance, flexible clinic hours for screening services, alternative screening sites [like mobile mammography vans], child care, scheduling assistance and translation services).
10. Reduce out-of-pocket costs to patients, including co-pays and deductibles.

Increase Provider Delivery
11. Implement provider reminder systems to discuss screening with patients.
12. Educate health care professionals on evidence-based approaches.
13. Expand the use of provider assessment and feedback to ensure compliance to screening guidelines.
14. Promote patient navigation to facilitate timely access to screening.

BREAST CANCER SCREENING

Objective
Increase the percentage of women who have had a mammogram in the past two years by 5 percentage points

Target 80.6%

2016
2023

Baseline 75.6%

Source: Behavioral Risk Factor Surveillance System 2016 Dataset
GOAL 9  Increase cervical cancer screening

The majority of cervical cancers are caused by Human Papillomavirus (HPV). Additional risk factors include: smoking, conditions that cause immunosuppression (HIV, AIDS), long-term use of oral contraceptives, having multiple full-term pregnancies, and diethylstilbestrol exposure (DES). Overweight women also have higher risk of adenocarcinoma of the cervix. (Pennsylvania Cancer Incidence and Mortality, 2014)

The risk of cervical cancer increases with age. Women with invasive cervical cancer are most frequently diagnosed between ages 55 and 64 and often die from invasive cervical cancer in the same age range. However, cervical cancer is survivable; 61.6 percent of those diagnosed survive five years or more.

Cervical cancer screening includes the Pap test and an HPV test. Frequency is based on age and personal health history. The U.S. Preventive Services Task Force recommends screening for cervical cancer in women age 21 to 65 years with cytology (Pap smear or Pap test) every three years or, for women age 30 to 65 years who want to lengthen the screening interval, screening with a combination of cytology (Pap smear) and human papillomavirus (HPV) testing every five years.

In Pennsylvania, persons living below poverty level, with less than a high school education, and have no health insurance have lower screening rates. Breast and cervical screenings are available for low-income residents (see page 7).

The Community Preventive Services Task Force (CPSTF) recommends multi-component interventions or using a combination of 11 possible individual interventions to increase breast, cervical, and colorectal cancer screening rates among underserved populations. Strategies for breast, cervical and colorectal screening within this plan are separated into the CPSTF categories of increasing community demand, increasing community access and increasing provider delivery of screening services.
Multi-component Cervical Cancer Screening Strategies

Increase Community Demand

1. Provide group education to inform patients about risk factors, screening guidelines and the importance of early detection of cancer.

2. Utilize one-on-one education to provide patients with information on screening recommendations and screening test options.

3. Engage women in education and scheduling at worksites and where high-need women access other services (e.g., food banks).

4. Implement tailored client reminders to inform patients that they are due for screening.

5. Conduct small media awareness campaigns about the importance of early detection.

Increase Community Access

6. Engage community health workers to educate consumers, link consumers to clinics, and provide transportation and other solutions to address barriers to care.

7. Promote access to screening by reducing structural barriers (e.g., transportation assistance, flexible clinic hours for screening services, alternative screening sites, child care, scheduling assistance and translation services).

8. Reduce out of pocket costs to patients, including co-pays and deductibles.

9. Advocate for employers to provide support or paid time off for employees to receive their cervical cancer screening.

Increase Provider Delivery

10. Implement provider reminder systems to discuss screening with patients.

11. Educate health care professionals on evidence-based approaches.

12. Expand the use of provider assessment and feedback to ensure compliance to screening guidelines.

13. Promote patient navigation to facilitate timely access to screening.

CERVICAL CANCER SCREENING

Objective

*Increase the percentage of women aged 21-65 who have had a pap test in the past three years by 5 percentage points*

Target: 76.1%

2016: 71.1% (Baseline)

2023: 76.1%

Source: Behavioral Risk Factor Surveillance System 2016 Dataset
GOAL 10 Increase colorectal cancer screening

In Pennsylvania, there are approximately 6,900 cases of colorectal cancer diagnosed each year and approximately 2600 associated deaths. In 2015, colorectal cancer was the second most common cause of cancer deaths among both men and women in Pennsylvania.

The U.S. Preventive Services Task Force (USPSTF) guidelines recommend screening for colorectal cancer, for persons 50 to 75 years old, by either using a home fecal occult blood test annually, getting a sigmoidoscopy every five years and fecal occult blood testing every three years, or getting a colonoscopy every 10 years.

A study led by American Cancer Society (ACS) and published in the Feb. 28, 2018 edition of the “Journal of the National Cancer Institute” found new cases of colon cancer and rectal cancer occurring at an increasing rate among young and middle-aged adults in the U.S. One in 10 are diagnosed before age 50. State statistics mirror national trends in that Pennsylvania colorectal cancer incidence rate has risen 76 percent for those age 20-34 years and 21 percent for those 35-49 year. Incidence in those age 50 and over has fallen by 38 percent.

It is suggested that changing dietary habits and a more sedentary lifestyle are the same factors that caused the increase in obesity are also risk factors for colon and rectal cancer. ACS is now recommending colorectal screening should begin at age 45 for people at average risk. The new guideline also says that people at higher than average risk might need to start colorectal cancer screening before age 45, be screened more often and/or get specific tests.

As of the writing of this document, the USPSTF screening guideline remains the industry standard.

Pennsylvania is participating in the 80% Pledge National Colorectal Cancer Roundtable (NCCRT) initiative, which aims to regularly screen 80 percent of adults aged 50 and older for colorectal cancer. Health systems, health providers and federally qualified health centers are encouraged to increase their screening rates through multi-component interventions, patient navigation and practice improvement.

The Community Preventive Services Task Force (CPSTF) recommends multi-component interventions or using a combination of 11 possible individual interventions to increase breast, cervical and colorectal cancer screening rates among underserved populations. Strategies for breast, cervical and colorectal screening within this plan are separated into the CPSTF categories of increasing community demand, increasing community access and increasing provider delivery of screening services.

1 in 22 develop colon cancer
1 in 52 die of colon cancer
Multicomponent Colorectal Cancer Screening Strategies

Increase Community Demand for Screening
1. Provide group education to inform patients about risk factors, screening guidelines and the importance of early detection of cancer.
2. Utilize one-on-one education to provide patients with information on screening recommendations and screening test options.
3. Conduct small media awareness campaigns about the importance of early detection.
4. Implement tailored client reminders to inform patients that they are due for screening.

Increase Community Access to Screening
5. Promote access to screening by reducing structural barriers (e.g., transportation assistance, flexible clinic hours to screening, alternative screening sites, child care, scheduling assistance, translation services).
6. Reduce out of pocket costs to patients, including co-pays and deductibles for patients needing colonoscopies.

Increase Provider Delivery of Screening Services
7. Implement provider reminder and recall systems to discuss screening options with patients.
8. Educate health care professionals on evidence-based approaches.
9. Expand the use of provider assessment and feedback to ensure compliance to screening guidelines.
10. Promote patient navigation to facilitate timely access to screening.

CRC CANCER SCREENING
Objective
Increase the percentage of Pennsylvanians aged 50-75 who received one of the recommended colorectal cancer screenings per USPSTF guidelines within the recommended interval by 6 percentage points

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<th>Target</th>
<th>Baseline</th>
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</tr>
<tr>
<td>2023</td>
<td>74.0%</td>
<td></td>
</tr>
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</table>

Source: Behavioral Risk Factor Surveillance System 2016 Dataset
GOAL 11 Detect lung cancer earlier

Lung cancer is the second most common cancer and the leading cause of cancer death among men and women in Pennsylvania. Of all lung cancer deaths, 71 percent are diagnosed at late stage. The lung cancer survival rate is 20.7 years. Men and women are most frequently diagnosed with invasive lung cancer between ages 65 and 74 and most frequently die from invasive lung cancer in the same age range.

Recent studies have shown that screening for lung cancer using a low-dose computed tomography (CT) scan helps lower the risk of dying from this disease. All major medical organizations, including the U.S. Preventive Services Task Force (USPSTF) and the Centers for Medicare and Medicaid Services (CMS) recommend annual lung cancer screening for individuals at high-risk of developing lung cancer who are between the ages of 55 and 74, have at least a 30-year smoking history and are either current smokers or have quit smoking within the last 15 years. Medicare’s recent expansion to cover low-dose CT screening for lung cancer increased the public’s access to this potentially life-saving measure.

While technology is available, lung cancer screening rates remain low. People cite lack of lung cancer screening awareness, socioeconomic status, eligibility for testing, and the stigma of lung cancer due to its relationship with smoking as reasons for not being screened.

Early Detection Strategies for Lung Cancer

1. Promote the importance of lung cancer screening; empower those who qualify for lung cancer screening to make informed decisions.
2. Develop and promote patient navigation and case management programs specific to lung cancer screening.
3. Promote resources about lung cancer screening to health care professionals.
4. Educate health care providers about developing a lung cancer screening program and overcoming structural barriers.
5. Establish a shared decision-making process as required by Medicare for lung cancer screening and certification.
6. Establish integrated multidisciplinary teams to deliver lung cancer screening services.

Early Stage Lung Cancer Diagnosis

Objective

Increase the percentage of lung cancers diagnosed at an early stage by 5 percentage points

Target 26.8%

2015 21.8% Baseline

2023

1 in 14 develop lung cancer

1 in 19 die of lung cancer

Source: Pennsylvania Cancer Registry, 2015 Dataset
GOAL 12 Detect prostate cancer earlier

Prostate cancer is the most common type of cancer diagnosed and the second most common cause of cancer-related deaths among males in Pennsylvania. In 2015, prostate cancer accounted for about 11 percent of all invasive cancer diagnoses. Prostate cancer is more prevalent among older males; approximately 97 percent of invasive cases diagnosed from 2011-2015 were among males aged 50 and older.

Black and African American men and men with a family history of prostate cancer are among those with the highest risk of prostate cancer. At risk men, particularly black men, tend to be diagnosed or present at a later and more advanced stage of disease, which increases the likelihood of dying from prostate cancer. Therefore, screening is important in this group.

In 2015, the Pennsylvania Prostate Cancer Task Force (PCTF) was assembled to make recommendations to the secretary of health regarding education, surveillance, detection and treatment, survivorship and policy for chronic prostate conditions. The resulting report, “Prostate Cancer, Recommendations for Improving the Health of Pennsylvania Men” is a guide for addressing prostate health. The Men’s Health Work Group was formed within the Pennsylvania Cancer Coalition to implement recommendations and strategies.

The Screening Debate

In 2012, the United States Preventive Services Task Force (USPSTF) recommended against prostate screening in healthy men, finding the potential risks outweighed the potential benefits. Following this recommendation, the incidence rate of prostate cancer fell while the number of late-stage cancers increased. Since 2011, the incidence rate of prostate cancer in Pennsylvania has fallen 23.5 percent since the recommendation (Pennsylvania Cancer Registry Dataset).

The USPSTF, American Cancer Society, and the American Urological Association recommend that men ages 50 to 70 years old talk with their health care provider regarding the appropriateness of screening and/or testing (i.e., informed decision-making). For some men, the benefits of screening outweigh the risks. Black men and men who have a father, brother or son who had prostate cancer before age 65 should have this discussion with their doctor beginning at age 45. Men who have more than one first-degree relative who had prostate cancer before age 65 should have a conversation with their health care provider at age 40. Men who decide to be tested should have a prostate-specific antigen (PSA) blood test with or without a digital rectal examination (DRE).

1 in 10 men develop prostate cancer

1 in 44 men die of prostate cancer
Early Detection Strategies for Prostate Cancer

1. Engage community and non-profit organizations to improve men's awareness of prostate and general health and the need to visit a physician.

2. Engage influencers (e.g., community health workers, partners, family members, faith leaders) to encourage men to seek medical care and screening consultation.

3. Use culturally appropriate prostate health education materials targeted to hard-to-reach men.

4. Promote access to screening by reducing structural barriers (e.g., transportation assistance, flexible clinic hours to screening, alternative screening sites, scheduling assistance, translation services).

5. Develop initiatives to assist men with high risk indicators in accessing screening and other health care, regardless of insurance coverage.

6. Establish a statewide database for performance measurement and quality improvement of prostate health.

7. Promote informed-decision making among men and their provider for prostate health and screening.

8. Provide training for health care professionals on prostate cancer guidelines, including cultural and linguistic awareness and sensitivity.

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**EARLY STAGE PROSTATE CANCER DIAGNOSIS**

**Objective**

*Increase the percentage of prostate cancers diagnosed at an early stage by 7 percentage points*

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>74.1%</td>
</tr>
<tr>
<td>2023</td>
<td>Target: 81.1%</td>
</tr>
</tbody>
</table>

Source: Pennsylvania Cancer Registry, 2015 Dataset
Pennsylvania’s cancer control must assist providers, health systems, policymakers and insurers in learning about and adopting best practices for cancer diagnosis and treatment.6

GOAL 13 Increase participation in cancer clinical trials

In October 2018, ClinicalTrials.gov, the National Institute of Health’s registry of publicly and privately supported clinical studies, listed 32,490 cancer-related studies in the United States — 5,907 of those studies in Pennsylvania. While the availability of cancer clinical trials increases, the pool of patients being recruited into individual clinical trials has not kept pace. It is estimated that only 5 percent of patients diagnosed with cancer participate in clinical trials with particularly low participation among minorities, especially African Americans. The Journal of Community Oncology reports only 16 percent of cancer patients know that clinical trials are a treatment option they could explore.

A study from the American Cancer Society7 reports the demographics of participants in clinical trials do not match the demographics of the U.S. cancer population, due in large part to many of these trials occurring far from where patients are seeking or receiving treatment.

This can indeed be a problem because of Pennsylvania’s large rural population located long distances from major medical hubs. The barrier for nearly 75 percent of patients is that their local institution does not have a clinical trial for which they are eligible. The report also finds United States participants in National Cancer Institute trials skew significantly younger than the U.S. cancer population and both minorities and the poor are also underrepresented in such trials.

Improving education on clinical trials for both patients and physicians can increase...

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6 The Cancer Plan is not intended to prescribe cancer treatment regiments to health care professionals. Instead, its purpose is to address public heath, improve access to care, navigate patients through complex cancer care systems, and help patients make informed decisions throughout their cancer journey.

7 Recommendations for Overcoming Barriers to Patient Enrollment in Therapeutic Clinical Trials for Cancer. April 2018.
participation. Low participation is based on not just fear of the unknown but fear of being in a placebo group who may not receive the treatment they need, fear of not understanding what is being tested, fear of unknown side-effects, fear of working with a clinical physician with whom the patient does not have a trusting relationship, and concerns regarding insurance coverage. Education for doctors is critical because in most treatment of cancer patients, the decisions are made by joint patient-physician decision-making.

Pennsylvania currently has no source of data to measure patient participation in clinical trials. Identification of a source or method to measure clinical trial participation is needed as a first step. A pilot project with one health system would enable the collection and evaluation of data and subsequent methodology improvements. The project could be expanded to additional health systems, as feasible, ultimately reaching statewide coverage.

In the interim, additional strategies listed below are intended to encourage Pennsylvanians in participating in cancer clinical trials.

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### Clinical Trial Participation Strategies

1. **Implement a pilot program to measure cancer patient participation in clinical trials by 2023.**
2. **Raise awareness of clinical trials among institutions, providers, patients, family and caregivers.**
3. **Reach out to populations underrepresented in cancer clinical trials.**
4. **Connect patients with trial survivors as advocates.**
5. **Advocate for trials to address participation barriers (e.g., lodging, missed work, child care, etc.).**
6. **Educate legislators, employers and insurance carriers to promote policies that support availability, access to and participation in clinical trials.**
7. **Encourage providers to talk to their patients about clinical trials.**
8. **Educate private health plans to cover routine care for patients enrolled in clinical trials.**

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**Note:** Baseline and target to be established
GOAL 14 Increase the availability of and access to cancer genetic counseling and testing in Pennsylvania

Currently, inherited genetic mutations are known to play a major role in about 5 to 10 percent of all cancers. Researchers have associated mutations in specific genes with more than 50 hereditary cancer syndromes, predisposing individuals to developing certain cancers. Commonly known inherited mutations, BRCA1 and BRCA2 genes are associated with hereditary breast and ovarian cancer, as well as pancreatic, prostate and male breast cancer. Individuals with Lynch syndrome have an increased risk of developing colorectal, endometrial, ovarian, stomach, small intestine, hepatobiliary tract, upper urinary tract, brain and skin cancers. Knowing or asking about a patient’s family cancer history is an important first step health care professionals can take in assessing hereditary cancer risk.

Awareness among health care professionals and the public on the importance of genetic testing is rising but the decision to pursue genetic testing has its challenges. Many primary care physicians have limited time to educate their patients or may feel inadequate to address this evolving field. In addition, there may be few local genetic counselors to coordinate testing services and counseling. Working as part of a health care team, genetic counselors provide information and support to patients and families at risk for a genetic disorder or inherited condition.

Precision Medicine

Precision medicine uses specialized genetics or genomics testing to form a personalized treatment or prevention plan, accounting for differences in lifestyle, environment and biology. Precision medicine will require genetic counselors and clinicians to work with patients and families to create treatment plans specific to that person and their risk for cancer. The national All of Us Research Program, a key element of the Precision Medicine Initiative (PMI) and administered by the National Institutes of Health, is gathering data from 1 million people nationwide to collect health-related information to research the relationships between various environmental exposures, genetic factors and other biologic determinants of disease and to help physicians provide more precise care for patients. Examples of precision medicine programs in Pennsylvania include All of Us Pennsylvania in western Pennsylvania and Geisinger’s MyCode Community Health Initiative.
Recognizing the need to enhance Pennsylvania’s statewide approach to cancer genetics, the Pennsylvania Cancer Control, Prevention and Research Advisory Board (CAB) convened an ad-hoc committee in 2018-2019 to recommend a statewide public health approach to advance cancer genetics and genomics in Pennsylvania. The committee’s report and recommendations highlight the importance of surveillance, education and promotion of policy and systemic change in Pennsylvania to advance cancer genetics/genomics that saves lives and improves health and quality of life.

**Recommendations for Data and Surveillance**

1. Collect and report cancer genetics/genomics data and health disparity data.

2. Create a Genetics/Genomics Division within the Bureau of Health Promotion and Risk Reduction of the Pennsylvania Department of Health.

3. Increase access to genetic services in underserved areas in Pennsylvania.

**Recommendations for Education**

4. Develop a workgroup in the Pennsylvania Cancer Coalition.

5. Provide ongoing and updated provider education.

6. Provide ongoing and updated public education related to hereditary cancer risk factors and how to find cancer genetics specialists.

**Recommendations for Policy, Insurance and Systemic Change**

7. Facilitate legislation to create a statewide public health genetics/genomics infrastructure.

8. Support the proposed amendment to the genetic counselor licensure law to allow genetic counselors to order tests.

9. Seek funding for a Genetics/Genomics Division of the Pennsylvania Department of Health.
The Importance of Patient Navigation

Patient navigation offers individualized assistance to patients, families and caregivers to navigate today’s complicated health care system by identifying and eliminating barriers that prevent individuals from receiving the appropriate cancer care. Cancer patient navigators work with a patient through all phases of the health care continuum.

Patient navigation is mandated by the American College of Surgeons for patients undergoing treatment in facilities certified by the Commission on Cancer (CoC). The 2015 CoC Standard 3.1 requires cancer facilities to have a process in place that aims to remove barriers to care. Facilities are not required to employ patient navigators but focus on the processes to understand health disparity populations and reduce barriers to care. The facility must conduct a community needs assessment to identify the needs of the populations served, opportunities to improve cancer health disparities, and decrease gaps in resources once during the three-year survey cycle.

Studies document the importance of community-level patient navigation in improving health outcomes for racial and ethnic minorities and other under-served populations. Patient navigators play a vital role from screening outreach to post-treatment follow-up. A study of the Hispanic/Latino population within Philadelphia illustrated the beneficial role of community-based awareness, education and navigation services to support the understanding of breast cancer screening guidelines and facilitate the scheduling of screenings.8

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Quality of Life for Cancer Survivors

Pennsylvania’s cancer control efforts must also address quality of life, overall health, pain management and palliative care for the more than 650,000 cancer survivors, their families and caregivers in Pennsylvania (2015 Pennsylvania Cancer Registry Dataset).

GOAL 15 Increase the five-year survival rate for Pennsylvanians with cancer

15.1 Survivorship Planning
Cancer survivor support is an important facet of quality oncology care.

15.2 Survivorship Wellness
A healthy lifestyle for cancer survivors has the potential to reduce morbidity and the risk for second primary cancers.

15.3 Physical Activity
Physical activity offers a variety of health benefits to cancer survivors.

15.4 Pain Management
Pain management should be an integral part of comprehensive cancer care.

15.5 Palliative Care
Palliative care begins at diagnosis and should facilitate patient autonomy, access to information and choice.
15.1 Survivorship Planning

The American College of Surgeons Commission on Cancer (CoC) deems cancer survivor support to be an important facet of quality oncology care. CoC Standard 3.3 requires the preparation and delivery of survivorship care plans as a component of its accreditation of cancer programs, focusing on the subset of cancer survivors from all disease sites who are treated with curative intent and have completed active therapy. The standard requires that these survivors be given a comprehensive care summary and follow-up plan to help patients and their primary providers to understand the treatment that has been given and any future health implications.

Commission on Cancer Standard 3.3: Survivorship Care Plan

The cancer committee develops and implements a process to disseminate a treatment summary and follow-up plan to patients who have completed cancer treatment. The process is monitored and evaluated annually by the cancer committee.

Survivorship Planning Strategies

1. Promote the benefits and use of survivorship care plans with cancer survivors and their caregivers.
2. Share best practices related to the benefits of survivorship coordinators and navigators located in pediatric and adult oncology centers.
3. Promote cancer-specific trainings and certifications to patient coordinators and navigators focused on survivorship care.
4. Increase oncology and primary care awareness and use of existing cancer survivorship care guidelines such as those published by the American Cancer Society, American Society of Clinical Oncology and the National Comprehensive Cancer Network.
5. Educate health care providers, both specialists and primary care providers, on the importance and use of a survivorship care plan.
6. Integrate survivorship care plans into standard practice.
7. Integrate survivorship information into provider curricula.
8. Provide technical support to hospitals regarding the effective and quality implementation of Commission on Cancer standards regarding the delivery of survivorship care plans.
9. Encourage survivorship care plans to include wellness programs/activities.

POST-CANCER CARE PLANS

Objective

Increase the percent of post cancer care plans completed by Commission on Cancer facilities by 5 percent

Note: Baseline and target to be established
15.2 Survivorship Wellness: Non-smoking

Adopting or maintaining a healthy lifestyle for cancer survivors has the potential to reduce both cancer- and non-cancer-related morbidity and the risk for second primary cancers. Warning by health providers about the increased risk of continued smoking among cancer survivors and the availability of evidence-based tobacco cessation services along with cessation counseling and/or medication can be impactful.

A healthy lifestyle is:

- Nutritious
- Physically active
- Drug-free
- Tobacco-free

Survivor Wellness Strategies to Reduce Smoking

1. Promote smoking cessation to post-treatment cancer survivors.
2. Reduce client out of pocket expenses by securing comprehensive cessation coverage for private/public insurance and Medicaid.
3. Increase tobacco cessation by educating providers on all tobacco quit aids.
4. Integrate current cessation aid/resources and assisted referrals (text to quit, online quit coach, websites) into cessation programming.
5. Promote multi-component interventions that include counseling and nicotine replacement therapy (NRT) for cancer survivors.
15.3 Physical Activity

Physical activity offers a variety of health benefits to cancer survivors, both during and after treatment, helping to reduce the risk of cancer recurrence and cancer-related mortality, reduce pain and other side effects associated with cancer treatment, and improve physical and mental health.

Preventing excess body weight and obesity can enhance the longevity and health of cancer survivors and reduce the risk of developing cancers that have been linked to excess body weight.

35.5% of cancer survivors aged 18 years and older had no physical activity in their leisure time.

Physical Activity Strategies

1. Educate survivors on the availability of community-based wellness programs.
2. Advocate for insurance coverage/reimbursable services for navigation and treatment via physical activity programming.
3. Expand the number/availability of wellness programs for survivors.
4. Educate primary care and specialty care providers on the availability of local programs and increase referrals to community-based wellness programs.

The National Comprehensive Cancer Network recommends regular exercise in daily life – even during cancer therapy – advocates "moderate aerobic exercise, such as riding a stationary bicycle or taking a daily walk, coupled with the use of light weights for strength training" to enhance well-being and spur recovery.

Survivorship Wellness: Physical Activity

Objective
Decrease the percent of cancer survivors aged 18 and older who reported no physical activity in their leisure time by 1 percentage point

2016: 28.1% Baseline
2023: Target 27.1%

* aligns with Pennsylvania’s HealthyPeople 2020 goal

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. 1992–2016 National Health Interview Survey
15.4 Pain Management

Pain management, including non-drug therapies along with medications, should be an integral part of comprehensive cancer care. While opioid medications continue to be a mainstay of treatment for moderate to severe cancer pain, their properties make them subject to misuse and abuse. Patient access to pain relief must be balanced by controlling misuse and adverse events associated with pain medication.

In 2015, The American Cancer Society Cancer Action Network (ACS CAN) created a nationwide survey and report card, evaluating state pain management policies by 16 criteria and rating each state with a letter grade from A to F.

Pennsylvania’s 2015 grade was a B+. In 2018, ACS CAN updated its methodology to address trends in pain and opioid policies, including restrictions on opioid dosing and prescription durations for long-term treatment and state prescription monitoring programs. The report included model pain management policies. Pennsylvania was one of 39 states that matched model pain policies 51 percent to 80 percent of the time. The goal is for Pennsylvania to match model pain policies above 80 percent of the time.

Pain Management Strategies
1. Empower survivors to take an active role in pain management by working with their health care provider to manage pain.
2. Increase access to non-pharmacological interventions and alternative therapies for cancer pain management, palliative care and wellness.
3. Educate providers about the use of controlled substances and addiction.
4. Educate providers on cancer pain guidelines.

PAIN MANAGEMENT
Objective
*Increase Pennsylvania’s pain management policy for cancer survivors rating from “51 percent to 80 percent” to “above 80 percent” to align with national policy*

Source: American Cancer Society Cancer Action Network Pain Policy Report Card 2018
15.5 Palliative Care

The National Comprehensive Cancer Network (NCCN) defines palliative care as care to reduce suffering and support the best possible quality of life for patients and their families, regardless of the stage of the disease or the need for other therapies. Palliative care begins at diagnosis and should be delivered concurrently with disease-directed, life-prolonging therapies, and should facilitate patient autonomy, access to information and choice.

The Center to Advance Palliative Care (CAPC) conducted a national survey of all hospitals in the United States in 2015 to measure the access to palliative care services and issued a “report card” grade based on the availability of palliative care programs. Pennsylvania received a “B” grade, meaning 61-80 percent of hospitals had a palliative care program. Pennsylvania should aim to increase the number of hospitals with palliative care programs, focusing particularly on smaller hospitals and those serving disparate populations.

The strategies below are drawn from the Pennsylvania Oncology Palliative Care Plan to address and expand the appropriate use of palliative care and improve quality of life.

Palliative Care Strategies

1. Create a societal understanding of the growing cancer survivor population and issues surrounding cancer survivorship.

2. Educate policy and decision-makers about the role and value of long-term follow-up care for survivors.

3. Increase palliative care providers available to patients early in cancer continuum (outpatient).

4. Educate health care providers and decision makers about cancer survivorship issues from diagnosis through long-term treatment effects and end-of-life care.

5. Engage hospitals offering no palliative care program in educational opportunities demonstrating the advantage of palliative care.

6. Disseminate resources with websites and NCCN Guidelines for Palliative Care to key stakeholders in hospitals not offering palliative care.

7. Promote standards and essential elements for palliative care service delivery.
## Plan Implementation and Evaluation

### What you can do

Everyone in Pennsylvania has a role to play in preventing and controlling cancer and in supporting Pennsylvania’s cancer survivors. Together, we can make a difference.

#### Any Pennsylvanian can...

<table>
<thead>
<tr>
<th>Activity</th>
<th>Prevention</th>
<th>Early Detection</th>
<th>Diagnosis and Treatment</th>
<th>Survivorship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain healthy weight by eating well and exercising.</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Use sun protection and refrain from indoor tanning.</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Get vaccinations that prevent cancer, such as HPV.</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Be screened for cancer according to national guidelines.</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Get tested for high-risk infections.</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Support smoke-free workplaces, schools and parks, and quit smoking.</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Get homes and other buildings tested for radon.</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Participate in cancer research through surveys, trials and/or other methodologies.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Volunteer to help those whose lives are affected by cancer.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Local public health agencies and community organizations can...

<table>
<thead>
<tr>
<th>Activity</th>
<th>Prevention</th>
<th>Early Detection</th>
<th>Diagnosis and Treatment</th>
<th>Survivorship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborate to remove barriers to cancer prevention, screening, treatment and support.</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Provide or host cancer survivor support groups.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Promote the use of community health workers to improve access to health care.</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Provide cancer information that is culturally and linguistically appropriate to those you serve.</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Help those you serve find cancer screenings and immunizations covered by their insurance.</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
**Providers and health care systems can...**

- Communicate clearly with patients based on gender, age, culture, language and education.
- Offer patient navigation for cancer screening, treatment and survivorship.
- Expand the use of telemedicine.
- Use reminder and recall systems to keep patients current on cancer screenings and vaccinations that prevent cancer.
- Talk to patients about personal or family cancer history.
- Connect patients to cancer clinical trials.
- Expand palliative care services.

**Health insurers and policymakers can...**

- Support access to and coverage of smoking cessation, nutrition programs and cancer treatment drugs.
- Ensure no cost sharing for all recommended cancer screenings and immunizations.
- Streamline access and reduce out-of-pocket costs to participate in cancer clinical trials.
- Support policies that make it easy for Pennsylvanians to make healthy choices and to reduce their exposure to environmental carcinogens.

**Employers and professional organizations can...**

- Adopt policies to support healthy food choices, wellness and breastfeeding.
- Support cancer survivors so they can continue to be successful employees.
- Offer employee benefits that encourage wellness.
- Provide time off for recommended cancer screenings and immunizations.
Evaluation of Outcomes

The Pennsylvania Comprehensive Cancer Control Program (CCCP) Evaluation Plan provides the mechanism for review of outcomes and the reporting and analysis of goal achievement. The evaluation framework includes the following series of major activities:

- **An Evaluation Report**
  This annual evaluation report is reviewed by the Pennsylvania Cancer Coalition’s Evaluation Subcommittee.

- **Leadership Engagement**
  The report’s results are shared with the PCC’s Executive Team and the Cancer Control, Prevention, and Advisory Board so that leadership is fully informed of key trends.

- **Strategic Assessment**
  This annual review determines whether adjustments in the various strategies need to be made to achieve the goal.

- **Communication and Public Reporting**
  An online metrics dashboard will display outcome data to foster dialogue among the PCC and CAB regarding the implementation of the cancer control plan. The metrics dashboard, depicting trend and progress toward goal attainment, will be made available on LiveHealthyPA.com.