



# Prostate Cancer

Recommendations for Improving the Health of Pennsylvania Men

Prepared by the Prostate Cancer Task Force to fulfill its requirements of Act 66 of 2015



February 17, 2017

Secretary of Health Karen Murphy

Dear Dr. Murphy:

Act 66 of 2015 established the Prostate Cancer Task Force to address the complicated issues and challenges that Pennsylvania faces in addressing prostate cancer, the most commonly diagnosed cancer for men. One in seven men will be diagnosed with prostate cancer in their lifetime. Black men are twice as likely to die of prostate cancer in comparison to their White counterparts. Prostate cancer survivors face complications and physical, psychosocial and economic issues that may last a lifetime.

We hereby submit to you and the General Assembly our report of recommendations for addressing prostate health. This report provides a wide range of recommendations and suggested actions in the areas of surveillance, screening, diagnosis and treatment, education, survivorship and policy to address the challenges related to prostate cancer and related chronic prostate conditions. While there are still divergent views regarding the screening of men to detect prostate cancer, the recommendations within our report represent the perspectives of both the public health and medical communities.

With the submission of our report, the work of the Task Force is now complete. The members of the Task Force have a strong interest and commitment in supporting efforts to implement the recommendations within the report. We look forward to any opportunity to discuss the recommendations and various considerations.

Sincerely,

A handwritten signature in black ink that appears to read "Sharon H. Sowers".

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Chair, Prostate Cancer Task Force  
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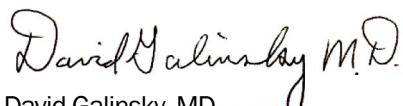
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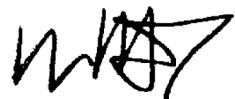
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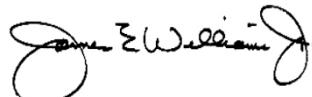
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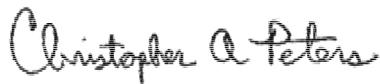
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# **Executive Summary**

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Prostate cancer is the most common cancer diagnosed among Pennsylvania men and the third most common cause of cancer-related death among the state's male residents. When detected early, prostate cancer survival rates are excellent, but men face side effects and other issues that can diminish their quality of life.

Unfortunately, a lack of consensus regarding prostate cancer screening guidelines has created confusion among the public and the medical community over who should be screened and at what age. Physicians predict future data will show increases in later stage cancer being detected as a result. Unless prostate cancer becomes a public policy priority, Pennsylvania may see an increasing trend in late-stage diagnoses, increasing mortality, and lower quality of life among survivors.

Act 66 of 2015 established a Prostate Cancer Task Force (PCTF) to investigate and make recommendations to the Secretary of Health regarding education, surveillance, and detection and treatment and related chronic prostate conditions. Task Force members represented specialties in urology, radiation oncology, nursing, epidemiology, as well as prostate cancer patients and patient groups and the Pennsylvania Departments of Aging, Health, Human Services, Insurance, and State.

This report addresses the need to address the full spectrum of prostate health services for Pennsylvania men. This service spectrum ranges from information and education to disease surveillance to medical and quality of life services to insurance coverage for such services. It aligns with the Department of Health's Cancer Control Plan, its Live Healthy PA initiative, and the Pennsylvania Oncology Palliative Care Plan. The report provides a comprehensive direction for public policy and prostate and public health advocates.

The report begins with an overview of the current prostate cancer burden on men in Pennsylvania. The recommendations chapters are organized around the varied areas comprising a prostate cancer public health policy: Surveillance, Screening, Diagnosis & Treatment, Survivorship, Education, and Policy. Policy largely addresses the matter of health insurance coverage. The implementation section demonstrates awareness for the varied resources needed to implement the recommendations. Appendices A-D provide supporting data for the report.

## **Recommendations**

### **For Surveillance**

Because prostate cancer does not affect Pennsylvania males evenly (e.g., race, geographic location, etc.), the Prostate Cancer Task Force recommends the Department of Health and prostate cancer advocates:

1. Expand the Pennsylvania Cancer Registry's data collection for a more complete assessment of prostate cancer incidence and mortality.
2. Assess the prostate cancer burden throughout Pennsylvania in order to identify high-risk populations.
3. Monitor the effects of the U.S. Preventive Services Task Force recommendations on the incidence of late stage, metastatic prostate cancer.
4. Establish a statewide database supporting performance measurement and quality improvement in prostate cancer care and outcomes.

## **For Screening**

While inconsistencies exist among screening guidelines, the Task Force believes the decision whether or not to screen should be made between a man and his physician. Therefore the Task Force recommends screening guidelines adapted from the [National Comprehensive Cancer Network®](#), [American Urological Association](#), and [American Cancer Society](#) that address age, risk factors and life expectancy. The guidelines are not a mandate for screening. They are intended as a starting point to prompt an individualized discussion and informed decision between a man and his physician about prostate cancer screening.

### **Screening Guidelines**

1. For men under age 40 years old, no routine PSA screening is needed for healthy men.
2. For men aged between 45–50 years old, no routine PSA screening is needed for healthy men; however for patients who are Black or have a positive family history of more than one family member with prostate cancer, a one-time PSA level at 45 may be appropriate to provide a baseline for future PSA test results. In all cases, men should have a discussion with their physician about benefits and risks.
3. For men aged between 50–70 years old with life expectancies greater than 15 years, decisions about PSA tests should be based on a shared decision between patient and physician, acknowledging the known risks and benefits. Decision-making should emphasize that not every cancer detected needs to be treated and that a wide spectrum of effective treatments are available.
4. For men >70 years old, no routine PSA screening is needed for healthy men. For men in excellent health, screening until age 75 may be appropriate as decided by the patient and physician.

The Prostate Cancer Task Force also recommends the Department of Health and prostate cancer advocates:

1. Incorporate Task Force-recommended screening guidelines as a core component of prostate cancer education and awareness.
2. Target screening to Black men and others with high risk indicators.
3. Develop a program to assist men in accessing screening, regardless of insurance coverage.

## **For Diagnosis & Treatment**

Because research is steadily improving the diagnostic and treatment options available to prostate cancer patients, the Prostate Cancer Task Force recommends the Department of Health and prostate cancer advocates:

1. Promote the use of new technologies for enhanced diagnosis of prostate cancer by physicians.
2. Encourage active surveillance as the preferred approach for men diagnosed with “very low risk” and “low risk” prostate cancer.
3. Educate men to seek proven treatments.
4. Increase patient participation in clinical trials for new diagnosis and treatment methods.
5. Align patient and provider incentives for diagnosis and choice of treatment.

## **For Survivorship**

Because prostate cancer treatment can cause side effects and other unwelcome health conditions, the Prostate Cancer Task Force recommends the Department of Health and prostate cancer advocates:

1. Promote initiatives that improve the quality of life for prostate cancer survivors by addressing the physical, psychological and socioeconomic effects.
2. Increase knowledge among health care providers about the essential elements, benefits and indications for survivorship.
3. Promote healthy lifestyles and follow-up care for prostate cancer survivors.
4. Improve the coordination of care among all treating primary (PCP) and specialty care (SCP) physicians through survivorship care planning.
5. Support the use of palliative care for metastatic prostate cancer patients.

## **For Education**

Because prostate cancer has the potential to impact all men, their families and communities, the Prostate Cancer Task Force recommends the Department of Health and prostate cancer advocates:

1. Advance educational strategies emphasizing the importance of men's health, including prostate health and screening, when appropriate.
2. Educate men to make informed decisions regarding treatment decisions.
3. Encourage informal influencers to engage men in being proactive about prostate health.
4. Educate primary care physicians and other health care providers about the importance of engaging men in discussions about prostate health.

## **For Policy**

Because a stronger public health policy can result in improved awareness, targeted screening, more effective diagnosis and treatment of prostate cancer, the Prostate Cancer Task Force recommends the Department of Health and prostate cancer advocates:

1. Expand prostate cancer awareness through a comprehensive advocacy strategy.
2. Require insurance coverage for consultations, screening, and diagnosis of prostate cancer.
3. Require insurance coverage for prostate cancer survivors with post-treatment conditions.
4. Support a statewide infrastructure for cancer survivorship oversight.
5. Secure public funding for Pennsylvania prostate cancer initiatives.

## **For Your Consideration and Implementation**

The report is not a “plan” in the traditional sense but a series of recommendations for consideration and implementation by policy makers and others. Moving forward will require direction and commitment from the General Assembly as well as the involvement of state agencies, the Pennsylvania Cancer Control, Prevention and Research Cancer Advisory Board (CAB) and its Stakeholder Leadership Team (SLT) cancer coalition and other prostate cancer advocates.

The Task Force is committed to promoting advancement of as many recommendations as possible by:

1. **Using The Department's Established Organizational Framework**, namely the Comprehensive Cancer Control Program, the Cancer Advisory Board and its cancer coalition, known as the Stakeholder Leadership Team.
2. **Securing Additional Leaders and Champions** who can leverage resources for maximum impact.
3. **Reporting Awareness** to promote prostate health.
4. Leveraging Resources including funding, staffing, time commitments, information sharing, and cooperation among state agencies.
5. **Promoting and Replicating Best Practices** to facilitate practice exchanges and achieve desired results.
6. **Reporting Progress** on a regular basis to gauge the extent to which the recommendations are being implemented.
7. **Holding a Statewide Meeting** to focus on the report’s implementation and to promote involvement among organizations to advance the recommendations.

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## **Prostate Cancer Task Force Members**

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## **Prostate Cancer Task Force Members**

**Angelo A. Baccala, Jr., MD** is a fellowship-trained urologic oncologist who specializes in surgical treatment of urologic malignancies. He is the Chief of Urology is also the Director of the Center for Urologic Oncology and Advanced Robotic Surgery at Lehigh Valley Health Network in Allentown, PA. Prior to that he practiced and received his urologic oncology fellowship in Bethesda, MD., with the National Cancer Institute in the National Institutes of Health. He is a graduate of The Johns Hopkins University School of Medicine and completed his urological research and training at The Cleveland Clinic. He has authored and co-authored many publications in urologic oncology.

**Jerome (Jerry) S. Bortman** is a 20-year prostate cancer survivor and the Health Consultant and Secretary of the Obediah Cole Foundation for Prostate Cancer where is organizes and participates in health fairs and education events. Jerry is also a member of the Allegheny County Health Department's Prostate Cancer Task Force and a state representative to the National Association of State Prostate Cancer Coalitions. Prior to retirement, he worked as an electrical engineer.

**David A. Buono, Jr.** is a Consumer Liaison with the Pennsylvania Insurance Department. With experience working in the insurance industry, David now leads the Insurance Department's increased efforts to provide consumer outreach and communications. His primary role is to make sure the department is reaching consumers and helping them navigate the complex world of insurance. He supports the department's initiatives to keep the state's insurance market competitive, while focusing on helping consumers learn and understand their rights and responsibilities, what options are available to them when it comes to insurance products, and providing a place for consumers to get answers to their questions.

**Benjamin Davies, MD** is an Associate Professor of Urology at University of Pittsburgh. He is the Director of the Fellowship in Urologic Oncology at University, a 2 year post graduate training program. He is also the Chief of Urology at Shadyside Hospital. Dr. Davies leads the Department and the region with his development of MRI Fusion Biopsy program for prostate cancer patients. He is a peer reviewer for the Journal of Urology, Cancer, JAMA, and European Urology. He is an Editor at the British Journal of Urology. Dr. Davies has authored over 70 journal articles with a focus on health services research, prostate cancer epidemiology, and bioinformatics. He is also a frequent contributor to Forbes Magazine's Health Blog focusing on biotechnology and cancer therapeutics.

**David Galinksy, MD** is board certified in internal medicine with added qualifications in geriatric medicine. In addition to his hospital and outpatient practice as a primary care physician, he was the medical director of retirement communities and of a hospital transitional care unit. He was a consultant in geriatric medicine on the geropsychiatry unit of a psychiatric hospital. He is active in community organizations. Since 2015, he has been the Chief Medical Officer of the Pennsylvania Department of Aging.

**Eric M. Horwitz, MD** is a radiation oncologist who specializes in the treatment of prostate cancer. As Chairman of the Department of Radiation Oncology at Fox Chase Cancer Center, an NCI designated Comprehensive Cancer Center, his responsibilities include caring for patients, designing and running clinical trials and developing new cancer treatments which utilize radiation alone and in combination with surgery and other systemic therapies. His research interests include understanding the significance of PSA both in the diagnosis of prostate cancer and as a marker of treatment success, and developing new radiation techniques which can shorten treatment times, increase precision and reduce side effects utilizing external beam radiation therapy and brachytherapy.

**Christopher A. Peters, MD** is a board certified radiation oncologist with a specific interest in educating patient and their family members in the screening, diagnosis, work-up, and management of prostate cancer. Discussing with patients and their family the entire spectrum of a potential prostate cancer diagnosis or a prostate cancer diagnosis is core to his specialty and practice. He serves as a local principal investigator for NRG Oncology Treatment Trials, trials sponsored through the National Cancer Institute for treatment of various stages of prostate cancer. Along with team members, he delivers treatments for prostate cancer including active surveillance, definitive external beam radiation therapy including IMRT/IGRT, prostate brachytherapy, as well as, radioisotopes including Radium 226 therapy.

**Alan L. Schein, MD** is a board certified ophthalmologist who was in private practice in Harrisburg, Pa. for 38 years. He spent two years in the United States Public Health Service and left with the rank of Lieutenant Commander. He has a personal and particular interest in Prostate Cancer because one brother died from prostate cancer and his other brother had a radical prostatectomy and is surviving, cancer free today. Dr. Schein has a significantly elevated PSA, has had multiple prostate biopsies and is currently under close surveillance by his urologist.

**Theda Shaw, RN, MSN** is a genitourinary cancer nurse at the Penn State Cancer Institute Outpatient Clinic where assists urology surgeons and navigates patient care. Her duties include patient and family mentoring, coordination of medical and radiation oncology referrals, and completion of survivorship care plans. She is also involved in community outreach, advising and assisting cancer patient support groups and planning community programs for cancer education. Prior to her work as a cancer nurse, Theda worked in nursing management for rehabilitation and orthopedics.

**Sharon H. Sowers** has more than 30 years of health care experience having worked in a regional health system, a professional association, a managed care organization, long-term care institutions, and both insurance and state government. Her specialization is marketing, public/provider relations, planning, board/coalition management, program administration and consulting. She is currently the Director of the statewide Comprehensive Cancer Control Program within the Division of Cancer Prevention and Control for the Pennsylvania Department of Health. Sharon and her team develop, implement and evaluate cancer control strategies for the Commonwealth.

**Peter Speaks** is the Deputy Secretary of Regulatory Programs for the Department of State, where he oversees the Bureau of Corporations and Charitable Organizations, the Bureau of Professional and Occupational Affairs, the Bureau of Enforcement and Investigations and the State Athletic Commission and has extensive senior level leadership and management experience within Pennsylvania State Government.

**Barry Wingard, MD** is the former Medical Director for the Office of Medical Assistance Programs in the Pennsylvania Department of Human Services. He retired in 2016.

**Colonel (Retired) James E. Williams, Jr., USA, MS, SPHR**, a prostate cancer survivor diagnosed in 1991, has been active as an advocate for more than 25 years. He worked as a human resources administrator for 15 years after retiring from the Army. He is a Senior Professional in Human Resources (SPHR). He is the principal of Jim Williams and Associates, a consulting firm specializing in prostate cancer awareness, education and advocacy. COL Williams is Board Chairman, Pennsylvania Prostate Cancer Coalition and Past Immediate Chair, Intercultural Cancer Council (ICC) at Baylor's College of Medicine and the University of Houston, Houston, TX. He has appeared on NBC's Weekend Today program and has been featured in Good Housekeeping, Cure, Prevention, CR, MaleCall, The Voice and other magazines and newsletters speaking on the topics of prostate cancer awareness and advocacy.

**Charnita Zeigler-Johnson, PhD, MPH** is an epidemiologist and Assistant Professor of Population Science at Thomas Jefferson University. Her research focuses on defining prostate cancer risk factors and better understanding racial and socioeconomic disparities. She is a member of the African-Caribbean Cancer Consortium and the Men of African Descent and Prostate Cancer Consortium. She is currently working with colleagues to develop interventions that will improve patient decision making about prostate cancer screening and treatment.

## Acknowledgements

With special acknowledgement and support in preparation of this document:

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## Plan Purpose & Development

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Prostate cancer is the most common cancer diagnosis in men and disproportionately affects Black men.<sup>1</sup> When detected early, prostate cancer survival rates are excellent however men face side effects and other issues that compromise their quality of life.

Unfortunately, a lack of consensus regarding prostate cancer screening guidelines has created confusion among the public and the medical community about who should be screened at what age and resulted in an increase in late stage diagnoses since 2012. Unless prostate cancer is made a priority by public policy makers, Pennsylvania may see an increasing trend in late-stage diagnoses, increasing mortality, and poor quality of life among survivors.

### Act 66 & the Prostate Cancer Task Force Charge

Act 66 of the Pennsylvania's General Assembly's Regular Session 2015-2016, also known as the Prostate Cancer Surveillance, Education, Detection and Treatment Act, directed the Pennsylvania Department of Health (DOH) to establish a Task Force for the purpose of investigating, raising awareness and making recommendations to the Secretary of Health concerning prostate cancer and related chronic prostate conditions and frames certain departmental responsibilities. The Task Force's recommendations were intended to aid the Department of Health in fulfilling its responsibilities:

- To provide the public with information and education to create greater public awareness of the prevalence of and measures available to detect, diagnose and treat prostate cancer and related chronic prostate conditions.
- To ensure that medical professionals, insurers, patients and governmental agencies are educated about risk factors and screening guidelines.
- To ensure that medical professionals provide patients with sufficient information about treatment options to enable patients to make an informed choice as part of informed consent and to respect the autonomy of that choice.
- To ensure that Pennsylvania government agencies provide unbiased information regarding screening, diagnosis and treatment options.
- To ensure that uniform screening guidelines are established for prostate cancer in Pennsylvania.

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<sup>1</sup> The term Black is used in this report, though Act 66 uses the term African American.

The bill required the Secretary of Health to appoint varied medical and personal perspectives on prostate cancer conditions to the Task Force. These specified perspectives included:

- Physicians with knowledge concerning treatment of prostate cancer and related chronic prostate conditions, namely specifically urologists and radiation oncologists;
- An epidemiologist who has expertise in prostate cancer;
- Registered nurses who are knowledgeable concerning prostate cancer;
- A prostate cancer patient or family member;
- Patient groups;
- Pennsylvania Departments of Health, State, Aging, and Human Services; and
- The Pennsylvania Insurance Commissioner.

The bill required the Task Force to convene its first meeting within 90 days of the bill's effective date, and to issue a report with recommendations to the Secretary of Health within one year of that meeting. These requirements are fulfilled in the Task Force's February 18, 2016 meeting and the delivery of this report to the Secretary by February 17, 2017. The bill requires the Secretary of Health to transmit the report to the Senate Public Health and Welfare Committee and the House Health Committee.

The bill directed DOH to develop programs of information and education as well as programs on accessing screening regardless of insurance coverage; to cooperate with other governmental departments and professional associations in disseminating educational materials; and to identify and apply for public and private grants and funding to carry out the provisions of the Act.

Passage of Act 66 was forecast to have no adverse fiscal impact on Commonwealth funds. Task Force members were not to be compensated for their voluntary service to the Department, though they were entitled to reimbursement for actual and necessary expenses to participate in task force meetings, which were reimbursed by DOH using its General Government Operations appropriation.

The full text of Act 66 is provided as Appendix A.

## **Alignment with other Pennsylvania Department of Health Plans and Initiatives**

### **The Pennsylvania Comprehensive Cancer Control Program**

The Pennsylvania Comprehensive Cancer Control Program is administered by the Division of Cancer Prevention and Control (DCPC) in the Pennsylvania Department of Health. DCPC receives funding and technical assistance from the Centers for Disease Control and Prevention to monitor the health of Pennsylvanians as a whole and recommend and evaluate cancer control planning initiatives to address the cancer burden. These initiatives focus on issues like prevention, detection, treatment, survivorship, and making sure health efforts are targeted to those populations that need the most help.

**The Cancer Control and Research Advisory Board (Cancer Advisory Board or CAB)** is an eleven member, legislatively mandated board to advise the Secretary of Health about cancer control, prevention and research. CAB members are appointed to four-year terms by the Governor and approved by the Pennsylvania Senate. The CAB is required to create a plan for cancer control activities and to recommend to the Secretary the awarding of grants and contracts to establish or conduct programs in cancer control or prevention, cancer education and training, and clinical research. The CAB meets quarterly and the meetings are open to the public.

**The Stakeholder Leadership Team (SLT)** acts as Pennsylvania's statewide comprehensive cancer control coalition. It is a committee of the CAB designated to develop, implement and evaluate cancer control initiatives from the Pennsylvania Cancer Control Plan. It is comprised of 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; all working together in a collaborative approach to reduce the incidence and mortality of cancer in Pennsylvania.

## **The 2013-2018 Cancer Control Plan**

The 2013-2018 Cancer Control Plan provides recommendation for how organization or individuals can engage in action to address the cancer burden in local communities or through statewide action. The Plan was developed by the statewide comprehensive cancer control coalition, also known as the Stakeholder Leadership Team, on behalf of the CAB and serves as the guide for cancer control initiatives through 2018. The plan is structured into five priority areas: Access, Disparities, Transformation, Community and Sustainability. Organizations and individuals can become engaged in plan implementation activities through the SLT.

At the September 2016 annual meeting of the CAB, SLT, and the Department of Health, cancer specific priorities for the next five-year period were identified as breast, colorectal, HPV, and prostate. In addition to these priorities, the Comprehensive Cancer Control Program will continue to address:

- Addressing access to care by reducing transportation barriers to cancer screening, treatment and survivorship programs.
- Encouraging health systems to integrate palliative care planning as part of the treatment plan for cancer patients.
- Educating survivors about healthy behaviors.

## **Live Healthy PA**

[LiveHealthyPA.com](http://LiveHealthyPA.com) is an online hub where communities, schools, organizations, and business can connect to access information and share ideas about preventing disease and injury. The website provides programs, data, and resources to help these target audiences address challenges in improving the health of their members.

While general information is available on the site, the [Healthy Living Practices Database](#) is a core component. The searchable database allows users to find successful disease and injury preventive programs or practices occurring in Pennsylvania for replication in their local community, school, business or organization. The database is a continuum of interventions that range from “new” or emerging programs to those “best” practices where outcomes have been formally evaluated.

## **Task Force Approach and Methodology**

The Task Force conducted its work through a series of five meetings and interim communications. Meetings were facilitated to discuss the varied views on prostate conditions found within the medical, research and survivor communities, prioritize needs, and develop recommendations and potential actions and actors. Task Force members worked in groups to draft recommendations for the six subject areas: Surveillance, Screening, Diagnosis and Treatment, Survivorship, Education and Policy. Prior to completion, the draft report was shared with the CAB and others for review and feedback. The Task Force reviewed these comments before finalizing the report.

## Document Organization and Use

This report addresses the need for public policy and prostate and public health advocates to address the full spectrum of prostate health services for men in Pennsylvania from information and education to disease surveillance to medical and quality of life services to insurance coverage for such services.

The report begins with a brief overview of the current **prostate cancer burden** on men in Pennsylvania. The Pennsylvania Cancer Registry has just released the 2014 cancer data. Additional data on prostate cancer can be found in Appendix C and on the Enterprise Data Dissemination Informatics Exchange or EDDIE, Pennsylvania's online interactive health statistics database.

The **recommendations** chapters are organized to address the varied aspects of a public health policy for prostate cancer: Surveillance, Screening, Diagnosis & Treatment, Survivorship, Education, and Policy, which largely addresses health insurance coverage. Each chapter begins with an overview and introduces the 3-5 recommendations found within. Each recommendation is presented with a rationale, supporting actions and potential implementation actors and resources specific to the recommendation.

The **implementation strategies** demonstrate awareness for the varied resources needed to implement the recommendations. Some actions within this report are to be implemented by the Department as prescribed in Act 66. The Act calls for the Department to:

- Develop information and education, including screening guidelines;
- Develop a program to assist males in accessing prostate cancer screening; and regardless of insurance coverage;
- Work with state agencies in disseminating information to medical professionals and the public;
- Support efforts to disseminate education to medical professionals; and
- Seek public and private grants to assemble funds to carry out these tasks.

Other recommendations and actions can be effectively implemented by in cooperation with other state agencies, prostate cancer advocates, and health care systems and providers.

The **appendices** provide supporting data for the report. Appendix A is the full text of Act 66 of 2015. Appendix B is a glossary of terms and organizations used or referenced in the report. Appendix C provides additional prostate cancer burden data. Appendix D includes links to the screening guidelines referenced in this report.

# Prostate Cancer Burden in Pennsylvania

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Prostate cancer is the most frequently diagnosed cancer in men and the third most common cause of cancer-related death among Pennsylvania male residents. In 2014, prostate cancer accounted for about 19 percent of all invasive cancer diagnoses in Pennsylvania.

Prostate cancer is more prevalent among older males. Approximately 97 percent of invasive cases diagnosed from 2010-2014 were among males aged 50 and older.

## Incidence

Incidence, or the number of new prostate cancers, has steadily declined except among Black males. There were 7,407 cases of prostate cancer in 2014, compared to 9,882 cases in 2003. Although the incidence rate increased in 2011, the rate has dropped dramatically since 2003 to a low of 92.0 per 100,000 in 2014.

Black males have the highest incidence of prostate cancer of any group. In 2014, the incidence rate of prostate cancer in Pennsylvania among Black males (177.2 per 100,000) was approximately 89.4 percent higher than the rate of White males (103.6 per 100,000). Incidence rates among Black males rise rapidly around age 45 and peak around age 65. The incidence rates among White males had a similar trend, but rose at a slower rate. Pennsylvania's age-adjusted incidence rates in 2013 were lower than the United States for both White and Black men. Incidence rates for men across the United States in 2014 have not yet been released.

**An age-adjusted rate** is a statistical method to make fairer comparisons between groups with different age distributions. It normalizes the average of the age-specific rates, where the weights are the proportions of persons in the corresponding age groups of a standard population. For example, a county having a higher percentage of elderly people may have a higher rate of death or hospitalization than a county with a younger population, merely because the elderly are more likely to die or be hospitalized. Age adjustment can make the different groups more comparable.

**Figure 1 - Age-Adjusted Incidence Rates of Invasive Prostate Cancer by Race, Pennsylvania Males, 2005-2014.**

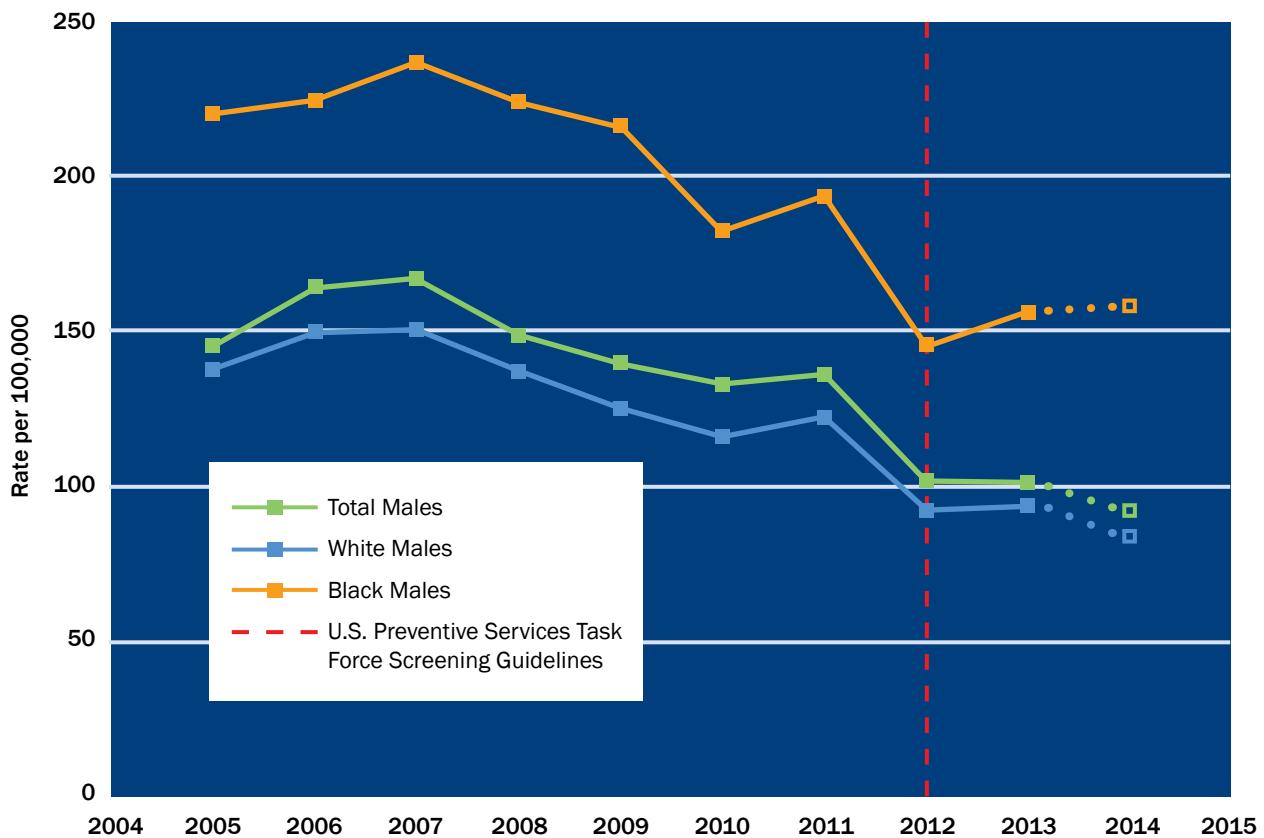
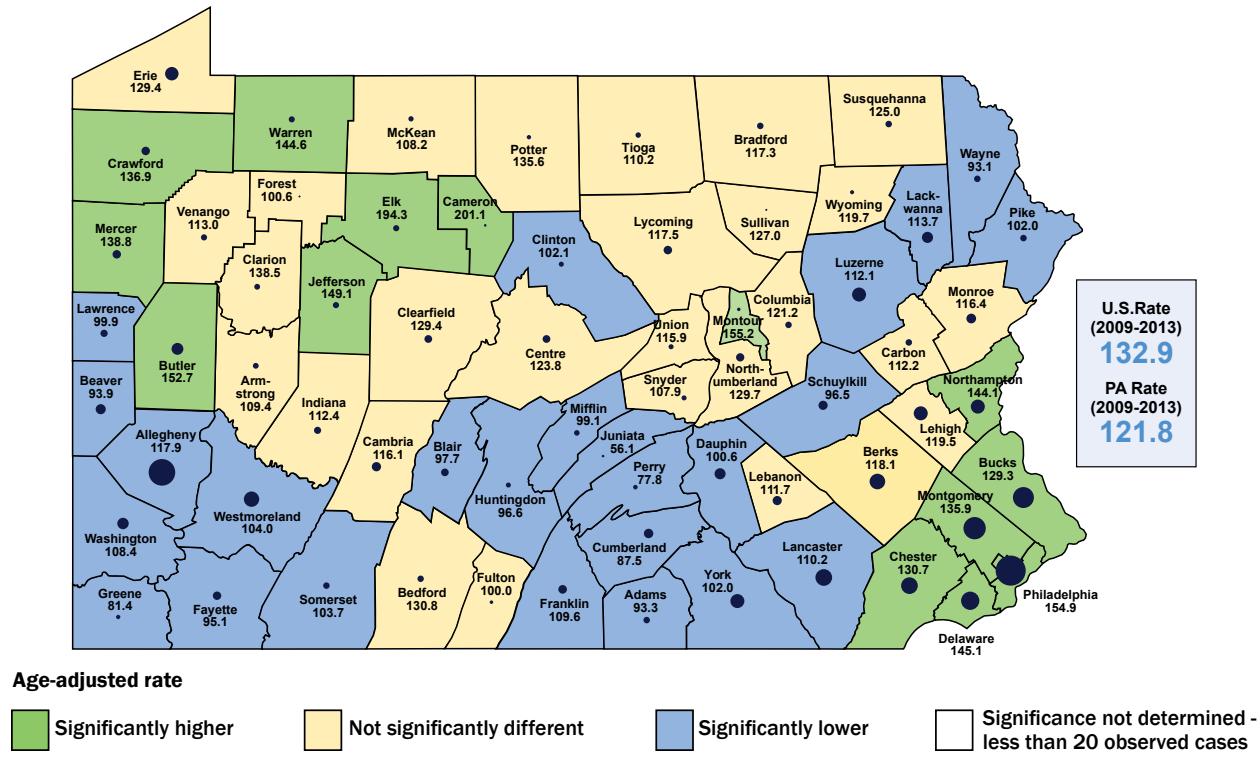


Figure 1 shows that incidence rates for White males and Black males ticked up in 2014, while the rate for total (all) males declined slightly. Each rate by race reflects the number of cancer cases divided by the appropriate population (White, Black, or total), not the whole population as is used for a percentage. Other Races (non-White and non-Blacks, not shown in the figure) had a decreasing rate between 2012 and 2013, which influenced the total rate downward. The total rate is most similar to the rate for Whites, since Whites make up the majority of the total population.

## Geographic Disparities

The Southwest, Southcentral, and Northeast regions of the state show significantly lower rates of prostate cancer incidence in comparison to the Pennsylvania rate, as shown in Figure 2. The Southeast and Northwest regions of the state have a preponderance of significantly higher rates.

**Figure 2 - Male prostate cancer incidence, 2009-2013.**  
**Significant differences between Pennsylvania county and state age-adjusted rates.**



**Figure 3 - Number and Age-adjusted Rate of Invasive Prostate Cancers among Pennsylvania Males, 2014 diagnoses.**

County	Count	Age-Adjusted Rate
Pennsylvania	7407	92.0
Tioga	45	142.4
Mercer	113	137.2
Philadelphia	968	133.6
Jefferson	42	126.7
Northampton	224	120.9

Age-adjusted rates are per 100,000 using the 2000 U.S. standard million population. Invasive cancers include unknown stage, but exclude in situ cases.

## Stage of Disease at Time of Diagnosis

Staging, or the extent of cancer at the time of diagnosis, shows that in 2014, about 78 percent of prostate cancer cancers (5,494) were diagnosed at an early stage (in situ and local). Approximately 22 percent of the 2014 prostate cancers (1,564) were diagnosed at a late stage (regional or distant) for both Whites and Blacks.

### Stages of Prostate Cancer

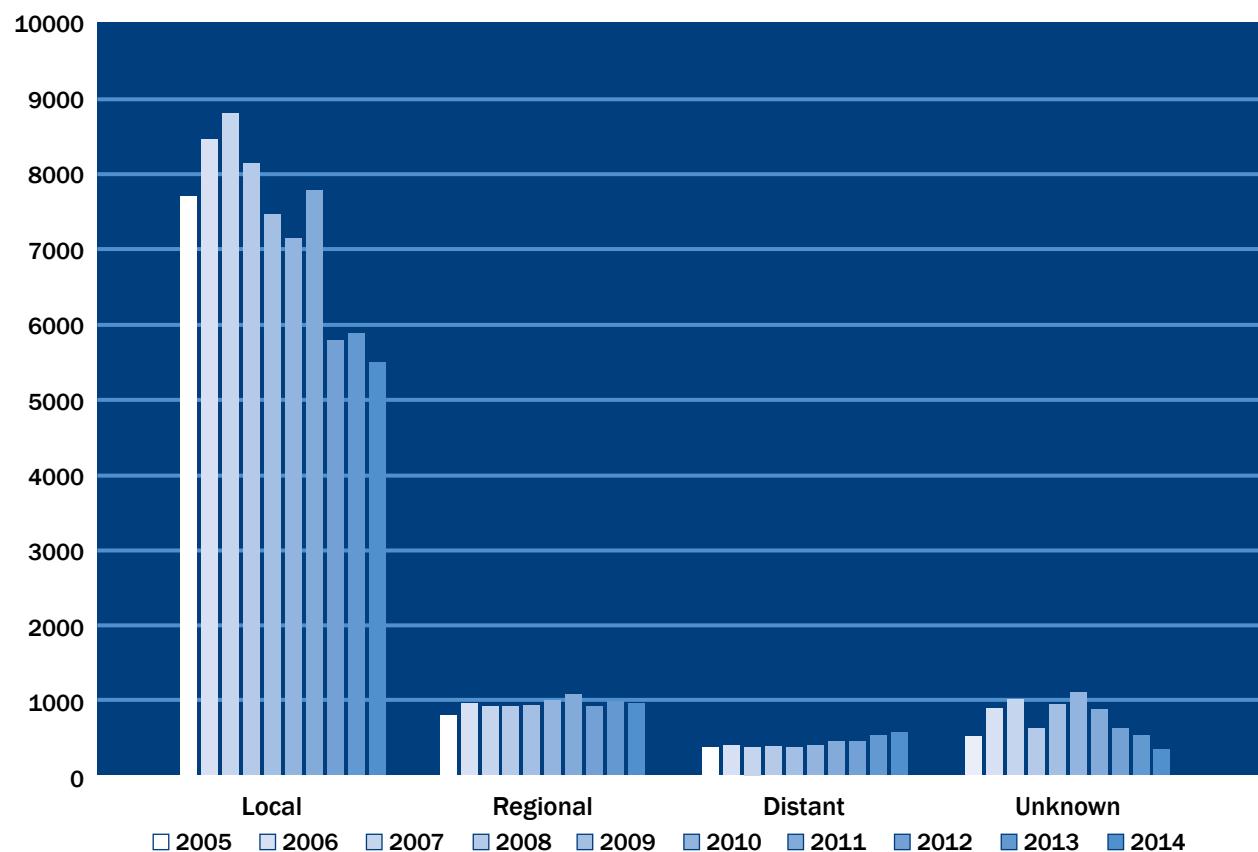
Local: The cancer is confined to the prostate.

Regional: The cancer has spread beyond the prostate but remains in the pelvic area.

Distant: The cancer has spread outside the prostate and pelvic area.

Invasive: The total of local, regional, distant and unknown cancer cases; in situ cases are excluded.

**Figure 4 - Number of Prostate Cancers diagnosed among Pennsylvania Males by Year and Stage, 2005 to 2014.**



Since 2007, the percentage of late-stage cases has remained steady for White males, has decreased for Black males, and has increased for Hispanic males. Figure 5 suggests that Hispanics were more likely to present with advanced (regional or distant) prostate cancer in 2014. In the last five-year period, Black males still have a late-stage diagnosis rate almost double that of White and Hispanic males. It will be important to follow these trends to see how future mortality rates are impacted.

**Figure 5 - Number and Percent of Prostate Cancers among Pennsylvania Males by Race and SEER Summary Stage, 2014 diagnoses.**

		In Situ		Local		Regional		Distant		Invasive
County	Race	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
Pennsylvania	All Races	2	ND	5492	74.1	985	13.3	579	7.8	7407
Pennsylvania	White	2	ND	4468	73.9	833	13.8	496	8.2	6041
Pennsylvania	Black	0	ND	709	73.1	130	13.4	76	7.8	970
Pennsylvania	Asian	0	ND	50	79.4	9	ND	2	ND	63
Pennsylvania	Hispanic	0	ND	91	68.9	20	15.2	14	10.6	132

Percentages will be expressed as 0 for counts < 10 due to unreliability of such calculations based on small numbers.

Populations for every race and county combination are not available unless it is a census year.

Data by county is listed in Appendix C. For more information please follow the following link: [www.statistics.health.pa.gov](http://www.statistics.health.pa.gov)

Hispanic can be any race.

Invasive cancers include unknown stage (not listed) but exclude in situ cases.

The counties with the highest incidence of prostate cancer by stage are shown below for 2014 and the 2010-2014 period. A complete list of incidence by stage for all counties is shown in the Appendix C.

**Figure 6 - Top 5 Counties for Prostate Cancer Incidence by Stage of Diagnosis by Frequency Count, Pennsylvania Male Residents, 2014.**

Invasive			Local			Regional			Distant	
1	Philadelphia	968	1	Philadelphia	720	1	Philadelphia	124	1	Allegheny 69
2	Allegheny	701	2	Allegheny	500	2	Allegheny	109	2	Philadelphia 67
3	Montgomery	527	3	Montgomery	390	3	Montgomery	69	3	Montgomery 39
4	Bucks	411	4	Bucks	318	4	Delaware	54	4	Westmoreland 31
5	Delaware	353	5	Delaware	264	5	Bucks	47	5	Bucks 29

**Figure 7 - Top 5 Counties for Prostate Cancer Incidence by Stage of Diagnosis by Frequency Count, Pennsylvania Male Residents, 2010-2014.**

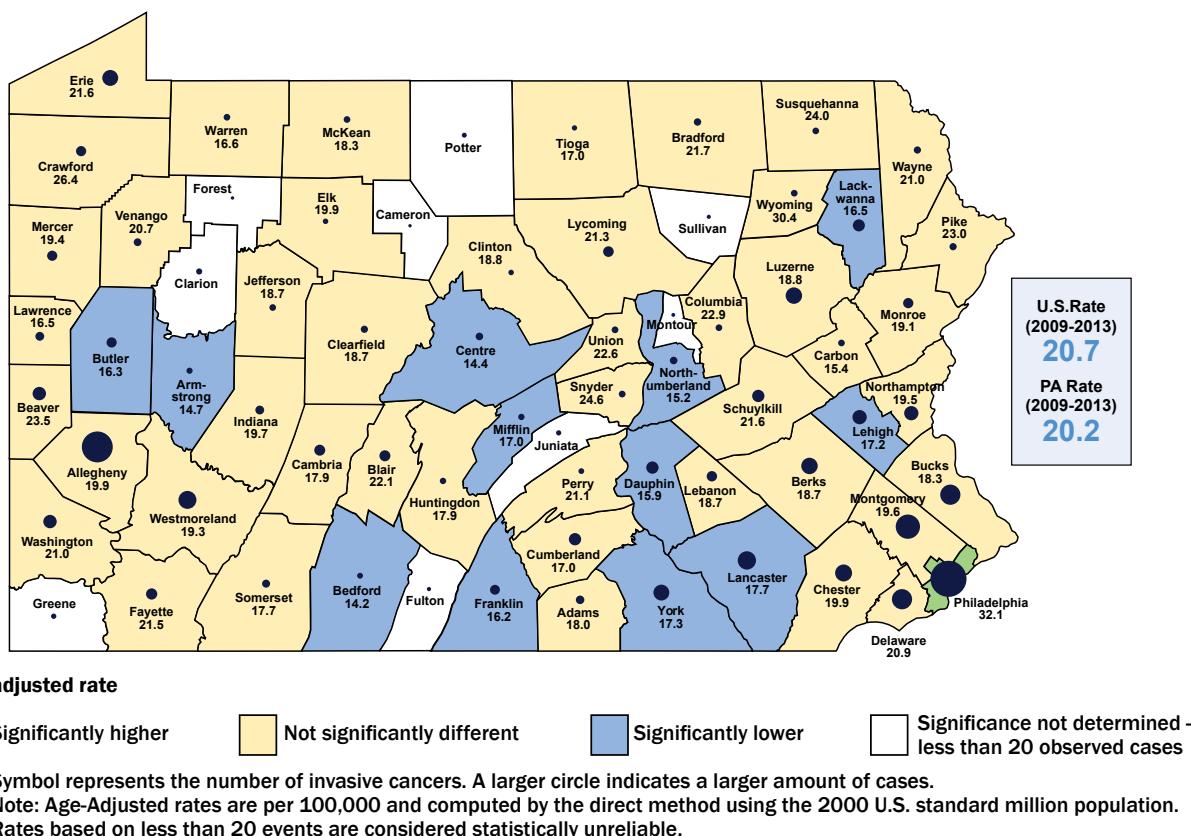
Invasive			Local			Regional			Distant	
1	Philadelphia	5,161	1	Philadelphia	3,708	1	Philadelphia	529	1	Philadelphia 310
2	Allegheny	4,052	2	Allegheny	2,950	2	Allegheny	492	2	Allegheny 299
3	Montgomery	2,991	3	Montgomery	2,245	3	Montgomery	325	3	Montgomery 141
4	Bucks	2,321	4	Bucks	1,693	4	Bucks	261	4	Bucks 108
5	Delaware	2,048	5	Delaware	1,571	5	Chester	236	5	Delaware 97

## Mortality

In 2014, there were 1,260 prostate cancer-related deaths in Pennsylvania for an age-adjusted rate of 17.9 per 100,000 for all males. Among Black males, the age-adjusted rate was 37.4 and among the very small population of Hispanic males the age-adjusted rate was 14.6.

Mortality rates for all men with prostate cancer in Pennsylvania have declined steadily since 2003, though rates among Hispanic males have not shown a consistent trend.

**Figure 8 - Male prostate cancer deaths, 2009-2013.  
Significant differences between Pennsylvania county and state age-adjusted rates.**



The county level prostate cancer mortality data do not show nearly the same range of differences in death rates. Some of the counties with a significantly lower incidence rate retained a significantly lower mortality rate, and Philadelphia retained a significantly higher mortality rates. The 2009-2013 age-adjusted mortality rate for prostate cancer was significantly higher in Philadelphia (32.1) compared to Pennsylvania's rate (20.2). Philadelphia also had the highest number of deaths (936) compared to all other counties in Pennsylvania. Allegheny had the second highest number of deaths (700), but the rate (19.9) was lower than the state rate. The counties with the highest mortality from prostate cancer are shown below

**Figure 9 - Top 5 Counties for Prostate Cancer Deaths by Frequency Count, Pennsylvania Male Residents, 2014 and 5-year trend, 2010-2014.**

	2014	2010-2014
Philadelphia	142	Philadelphia 899
Allegheny	140	Allegheny 699
Montgomery	92	Montgomery 408
Bucks	63	Bucks 302
Westmoreland	55	Delaware 282

During the most recent five-year period, Philadelphia, Allegheny, and Montgomery and Bucks counties had the largest number of men dying from prostate cancer. These counties had the highest total populations of all PA counties, with the exception of Westmoreland (10th biggest county). Philadelphia, Allegheny, Delaware, and Montgomery also had the highest Black populations in the state.

## Risk Factors

Etiological factors are not known, although risk is higher among the Black population and is associated with family history. There may also be increased risk associated with diets high in red meats and high-fat dairy products and a lack of fruits and vegetables.

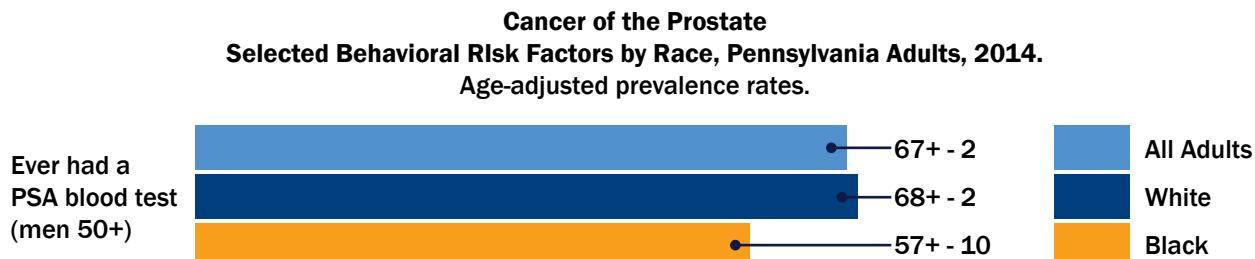
## Screening

The American Cancer Society recommends that men, beginning at age 50, talk with their health care provider about the pros and cons of testing for prostate cancer. Black males and men who have a father, brother, or son who had prostate cancer before age 65 should have a discussion with their health care provider beginning at age 45. Men who decide to be tested should have a prostate-specific antigen (PSA) blood test with or without a digital rectal examination (DRE).

In the 2014 Behavioral Risk Factor Surveillance System (BRFSS) survey, 67 percent of Pennsylvania men aged 50 and older who had ever been recommended for a PSA said they had ever had one. Black males had a considerably lower percentage than White males (57 percent compared to 68 percent). 86 percent of Pennsylvania men aged 50 and older had ever had a DRE with 47 percent reporting to have had such an exam in the previous year. Men in lower income brackets and those with less education were less likely to be recommended by health care professional for a PSA test or to receive a prostate exam.

More information regarding behavioral risk factors can be found in the 2014 BRFSS results.

**Figure 10 BRFSS Results for Pennsylvania Men age 50 and older who ever had a PSA blood test, 2014.**



## **Recommendations for Prostate Cancer Surveillance**

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Public health surveillance defines the problem of prostate cancer, measures the need for interventions, and measures the effects of interventions for prostate cancer patients and survivors. Surveillance provides a continuous, systematic process for collecting, analyzing and interpreting prostate cancer-related data that supports the planning, implementation, and evaluation of programs and practices.

In October 2016, the Office of the Assistant Secretary of the U.S. Department of Health and Human Services issued a white paper titled “Public Health 3.0: A Call to Action to Create a 21st Century Public Health Infrastructure,” in response to findings that zip codes are a more accurate determinant of health than genetics. Public Health 3.0 encourages collaborations across communities and sectors to emphasize cross-sectoral environmental, policy, and systems-level actions that affect the social determinants of health and advance health equity. Public health initiatives often exist in silos, resulting in missed opportunities to improve health at the local level. To guide community efforts, current, geographically specific, and granular data is needed, as well as tools for data analysis and an enhanced informatics workforce capacity.

Public Health 3.0 calls for exploring alternative sources of data, including hospital and ambulatory care records, health insurance claims, and electronic health records to demonstrate provide trends and patterns of health care utilization and admissions/discharges. Many participants urged substantial expansion of county- and sub-county level data collection efforts to enable local efforts that are pertinent to the population they serve. Further, there needs be a cultural shift in public agencies across the federal, state, and local levels in striving to make more raw, de-identified data available to researchers and the community in a more timely fashion to accelerate the translation of evidence to action.

The Pennsylvania Cancer Registry within the Pennsylvania Department of Health is a population-based cancer incidence registry for the state of Pennsylvania. The Registry is responsible for the collection 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 Registry updates records through linkage with death certificate files but does not collect follow up information.

## **Recommendations for Surveillance**

1. Expand the Pennsylvania Cancer Registry's data collection for a more complete assessment of prostate cancer incidence and mortality.
2. Assess the prostate cancer burden throughout Pennsylvania in order to identify high-risk populations.
3. Monitor the effects of the U.S. Preventive Services Task Force recommendations on the incidence of late stage, metastatic prostate cancer.
4. Establish a statewide database supporting performance measurement and quality improvement in prostate cancer care and outcomes.

### **Surveillance 1.**

#### **Expand the Pennsylvania Cancer Registry's data collection for a more complete assessment of prostate cancer incidence and mortality.**

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The current condition of data collection provides a limited perspective of prostate cancer risk and trends. While reporting is mandated, data is missing from a segment of providers, namely urologists, potentially biasing how statewide and regional prostate cancer incidence data is interpreted.

Expanding incidence collection to include all providers would provide the most current and accurate knowledge about risk groups and where additional resources are needed in the state. Prostate cancer patients, providers, researchers, and advocates benefit from having an accurate picture of the state of prostate cancer in Pennsylvania.

The value of reporting needs to be presented to those presently not reporting. It is recognized however, that reporting does entail additional staff time for data entry. The benefits of reporting must be conveyed in such a way as to offset the cost concern. To a great extent, this challenge could be addressed by allowing reimbursement for this activity.

### **Actions**

- 1.1. Identify gaps in physicians-reporting of prostate cancer incidence by county.
- 1.2. Integrate the reporting of prostate cancer incidence with Current Procedural Terminology (CPT) reimbursement codes for biopsy.
- 1.3. Increase incidence reporting by urologists through financial incentives, e.g. a 1 or 2 percent increase in payment.
- 1.4. Ask Electronic Health Record (EHR) vendors to develop Cancer Registry-approved electronic methods to report.
- 1.5. Develop Continuing Medical Education (CME) webinar training for physicians on the importance of reporting.

## **Performance Measures**

- ◆ Increase in number of reporting providers

## **Implementation & Resources**

The Pennsylvania Cancer Registry within the Pennsylvania Department of Health is the natural lead organization for expanding data collection through outreach and education to providers. The Pennsylvania Department of State licenses health care providers and maintains a database of practicing physicians, nurses and extenders. Professional organizations, such as the Pennsylvania Urology Society, the Pennsylvania Medical Society, and the Large Urology Group Practice Association, can be allies in recruiting physician participation.

Cancer centers and practicing physicians are the reporters to the Pennsylvania Cancer Registry. They should be encouraged to report cancer cases for complete data collection in their catchment areas that can be used for research, clinical trials, and community outreach programs.

## **Surveillance 2.**

### **Assess the prostate cancer burden throughout Pennsylvania in order to identify high-risk populations.**

Prostate cancer is the most prevalent malignancy among American men. However, some men are at higher risk for prostate cancer diagnosis, advanced disease, and prostate cancer mortality compared to others. Prostate cancer differentially impacts Black men, a group with the highest prostate cancer incidence and mortality rates in the U.S. Poor prostate cancer outcomes have also been associated with residing in low income communities. These disparities are believed to be a result of interactions among genetics, health behaviors, and environmental factors.

There is some indication that Vietnam-era veterans may have a greater incidence of prostate cancer associated with exposure to Agent Orange, which was often contaminated with dioxin, a dangerous toxin and potential carcinogen.<sup>2</sup> However, the most recent analyses of the data did not find a correlation.<sup>3,4</sup> While there is inconclusive evidence of an association, the US Department of Veterans Affairs acknowledges exposure to Agent Orange as a risk factor. According to its Public Health webpage, veterans who develop prostate cancer and were exposed to Agent Orange or other herbicides during military service do not have to prove a connection between their prostate cancer and service to be eligible to receive VA health care and disability compensation.

<sup>2</sup> Agent Orange exposure linked to life-threatening prostate cancer, May 13, 2013, <https://www.sciencedaily.com/releases/2013/05/130513083044.htm>.

<sup>3</sup> Chang, Ellen T. et al. "A Critical Review of the Epidemiology of Agent Orange/TCDD and Prostate Cancer." European Journal of Epidemiology 29.10 (2014): 667–723. PMC. Web. 1 Feb. 2017.

<sup>4</sup> Ovadia, Aaron E., et. Al. "Agent Orange and long-term outcomes after radical prostatectomy." Urologic Oncology 33.10 (2015): 329.e1–329.e6.

There must be a more targeted approach to identify high risk populations. To understand who is at increased risk, where these populations are located, and whether resources in the area are sufficient, mapping of prostate cancer case characteristics and data analysis integrating individual and social/environmental factors in multilevel models are needed. This recommendation would give the Department of Health, local health departments, academic cancer centers, physicians, and researchers data-driven guidance and rationale for intervening in specific communities to decrease the risk for advanced disease and mortality related to prostate cancer. Patients will benefit from this approach of focusing on most aggressive cancers and where they are occurring. Researchers and health departments also will be able to place resources where they are needed most.

## Actions

- 2.1. Examine trends in screening practices, prostate cancer incidence and mortality rates, prostate cancer tumor characteristics, treatment choice and treatment outcomes.
- 2.2. Examine other significant parameters related to prostate cancer including severity of disease and known prognostic factors.
- 2.3. Publish and promote a report on the status of prostate cancer every five years.
- 2.4. Educate researchers about the availability of data on the Pennsylvania Department of Health's interactive statistics website: Enterprise Data Dissemination Informatics Exchange or EDDIE.
- 2.5. Identify geographic and demographic populations underserved by screening and treatment services for prostate cancer.
- 2.6. Present a five-year report to the Pennsylvania Cancer Control, Prevention and Research Advisory Board (CAB) for recommendations to the Secretary of Health and State Legislature on prostate health.

### Performance Measures

- ◆ Publication of 5-Year Prostate Cancer Reports
- ◆ Providers earning CME credits on EDDIE-related training

## Implementation & Resources

The Data Advisory Committee (DAC) of the Pennsylvania Cancer Control, Prevention and Research Advisory Board (CAB) oversees cancer data reporting for Pennsylvania. The DAC developed the Burden of Cancer in Pennsylvania report, which updates analysis of all cancers periodically.

The Pennsylvania Department of Health releases annual reports on the incidence and mortality of selected cancers. The Department will continue to be the lead organization for such reporting.

Hospitals and providers support burden analysis by reporting cancer cases to the Pennsylvania Cancer Registry

### Healthy Living Practices in Surveillance

The African-Caribbean Cancer Consortium Prostate Cancer Initiative is a multi-institutional collaborative effort focused on community education and prostate cancer research. The organization brings together Black investigators in the Philadelphia region (from Fox Chase Cancer Center, Thomas Jefferson University, University of Pennsylvania, and Byrn Mawr College) to address disparities in early prostate cancer testing and poor outcomes in the African American community.

Contact: Camille Ragin, PhD, [Camille.Ragin@ffccc.edu](mailto:Camille.Ragin@ffccc.edu)

A Neighborhood-based Intervention to Reduce Prostate Cancer Disparities” is a transdisciplinary project conducted by the Thomas Jefferson University. The project’s objectives are to identify Philadelphia neighborhoods with the highest prostate cancer burden and to develop and test an educational intervention for at-risk men residing in these neighborhoods.

Contact: Charnita Zeigler-Johnson, PhD, [charnita.zeigler-Johnson@jefferson.edu](mailto:charnita.zeigler-Johnson@jefferson.edu)

### **Surveillance 3.**

#### **Monitor the effects of the U.S. Preventive Services Task Force recommendations on the incidence of late stage, metastatic prostate cancer.**

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In 2012, the [US Preventive Services Task Force \(USPSTF\)](#) recommended that doctors should not order Prostate-Specific Antigen (PSA) based screening unless the doctor is prepared to engage in shared decision-making that enables an informed choice by the patient with full understanding of the possible benefits and risk for harm.

The primary benefit that the USPSTF measured was the reduction of death. The harms of screening that the USPSTF identified were false positive results; negative psychological effects; unnecessary biopsies; and over diagnosis of tumors that may not become clinically significant in a patient’s lifetime. The USPSTF also identified harms related to treatments of screen-detected cancer, such as surgery, radiation, and androgen-deprivation therapy.

The studies upon which the recommendation was based were the United States Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial and the European Randomized Study of Screening for Prostate Cancer. The US study did not demonstrate a prostate cancer survival benefit. The screened men had 50 deaths and the control group had 44 deaths, a non-statistical difference. The European study showed an absolute reduction in deaths due to prostate cancer in men between 55 and 69 years of age. The European study was conducted in seven countries. It showed that PSA screening reduced the rate of death from prostate cancer by 20% but was associated with a high risk of over diagnosis. Because both studies were done primarily in White men, the results cannot be generalized to the Black population.

Since 2012, there have been studies incorporating more years of follow-up of the US and European studies as well as new studies. There are new recommendations on active surveillance for low grade prostate cancers. Active surveillance will spare many men the harms associated with treatment. There are also new diagnostic techniques, including MRI based techniques and genetic analyses.

Because of the new information since 2012, the USPSTF has announced that they are in the process of re-evaluating their recommendation. Their findings and a comment period are expected in 2017.

Early studies suggest that the US Preventive Services Task Force (USPSTF) recommendations to limit prostate cancer screening in the general population may result in the detection of more aggressive or late stage disease over time. There is a need to monitor these trends to determine if there is a sustained negative result in aggressive disease and mortality, especially among high risk groups. Although rates of prostate cancer incidence have been declining for more than a decade, even among high risk groups,

conflicting messages from health care professionals about the benefits of early detection may cause high risk groups to adopt a less proactive stance.

This recommendation would help to determine if a new set of guidelines is needed to address ongoing prostate cancer disparities in PA. This recommendation would benefit patients and providers who are in a quandary about whether they should advocate for PSA testing, even among highest risk men. Providing data about how the guidelines can impact prostate cancer outcomes will help guide education of patients and physicians.

## Actions

- 3.1. Analyze PA Cancer Registry data for changes in incidence and mortality.

### Performance Measures

- ❖ 5 Year report on prostate cancer incidence and mortality, including comparative analysis to USPSTF prostate cancer screening guidelines and updates

## Implementation & Resources

The Data Advisory Committee (DAC) exists to analyze and report cancer trends to CAB and Pennsylvania Department of Health.

### Healthy Living Practices in Surveillance

Thomas Jefferson University (Zeigler-Johnson team) is analyzing trends in prostate cancer incidence, aggressiveness and mortality with data received from the PA Cancer Registry. Preliminary results suggest that there are changing trends in Philadelphia for younger African American and Hispanic men, in particular. For these groups, disparities are apparent, and increases are observed in the proportion of men diagnosed with high stage or high grade prostate cancer.

Contact: Dr. Charnita Zeigler-Johnson, [charnita.zeigler-Johnson@jefferson.edu](mailto:charnita.zeigler-Johnson@jefferson.edu)

## Surveillance 4.

### Establish a statewide database supporting performance measurement and quality improvement in prostate cancer care and outcomes.

The treatment for prostate cancer has dramatically changed over the past decade, challenging physicians with a multitude of treatment options, variations in the sequencing of these agents, and adding to the complexity of clinical decision-making.

The Pennsylvania Urologic Regional Collaborative (PURC) was created to engage physicians in unified quality improvement to advance patient safety and improve outcomes for men with prostate cancer. Modeled after the Michigan Urological Surgery Improvement Collaborative (MUSIC), PURC's mission is to reduce variation in care delivery and service utilization for men newly diagnosed with prostate cancer,

analyze outcomes following prostate biopsy and radical prostatectomy, and improve patient-centered decision making for men faced with treatment choices. PURC began in 2015 as a partnership among Einstein Healthcare Network, Fox Chase Cancer Center, Temple University Hospital, Thomas Jefferson University Hospital, University of Pennsylvania Health System and Urology Health Specialists in southeast Pennsylvania and is funded by the Partnership for Patient Care (PPC). PPC is a regional patient safety initiative led by the Health Care Improvement Foundation that is jointly funded by Independence Blue Cross and the hospitals and health systems of southeastern Pennsylvania.

As of the writing of this report, PURC has expanded outside the southeast region and has partnered with the Geisinger Health System, Penn State Hershey Medical Center (located in central Pennsylvania) and MD Anderson Cancer Center at Cooper (located in New Jersey). The collaborative currently has 104 practicing urologists and over 4,100 patients in its database.

As national attention is directed towards reducing regional variation, adherence to best practice guidelines, and alternative payment models, the PURC collaborative will continue to leverage the collective experience of its participants to be a leader in physician-led quality improvement. Moving forward, the PURC collaborative has committed to continue to focus on efficiencies of care, appropriate treatments plans, and improving outcomes.

Monitoring patient care and outcomes, such as by PURC and other collaborative partnerships, is necessary in order to replicate best practices in patient care and identify where unmet needs exist. Guidelines for care (from education and PSA testing to treatment regimens and quality of life issues) can be altered as needed to benefit patients in Pennsylvania. Healthcare providers will benefit from a mechanism for performance measurement and reporting, as well as comparative, risk-adjusted data reported in real time to drive quality improvement.

## **Actions**

- 4.1. Use the findings of the Pennsylvania Urologic Regional Collaborative (PURC) as the foundation for developing a statewide performance measure database.
- 4.2. Expand or develop a model among public, private and non-profit stakeholders, building on the best practices of PURC, as well as the Michigan Urologic Surgery Improvement Collaborative (MUSIC) and the University of North Carolina Lineberger Comprehensive Cancer Center.

### **Performance Measures**

- ➔ Expansion of PURC
- ➔ An operating statewide database supporting performance measurement and quality improvement in prostate cancer care and outcomes analysis to USPSTF prostate cancer screening guidelines and updates

## **Implementation & Resources**

A committee of prostate stakeholders will be needed to determine the purpose, scope and cost of developing a statewide collaborative. Legislative engagement will be needed to gather support for a mandate for statewide reporting. Financial resources may be needed for database development, ongoing monitoring and reporting of data.

## **Recommendations for Prostate Cancer Screening**

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According the Centers for Disease Control and Prevention, cancer screening means looking for cancer before it causes symptoms. Two tests are commonly used to screen for prostate cancer:

- A prostate specific antigen or PSA blood test, which measures PSA, a substance made by the prostate, in the blood. The PSA level can be higher in men who have prostate cancer and other prostate disorders and who have other genetic factors or medical conditions that affect the prostate.
- A digital rectal exam or DRE, which estimates the size of the prostate and observes lumps or other abnormalities. A doctor or nurse inserts a gloved, lubricated finger into the rectum to conduct this physical exam.

Following screening, a doctor's interpretation of the results and patient input are used to determine if further testing, specifically a biopsy with or without imaging, is appropriate to diagnose prostate cancer (or other non-cancerous conditions) and staging of the disease.

Screening can detect prostate cancer and get men to treatment to reduce metastasis and death. Because many prostate cancers grow slowly or not at all, screening every man is unnecessary, costly and may lead to over-diagnosis and unnecessary treatment with additional health risks. However, screening men at high-risk for prostate cancer due to age, genetic factors, and family history can get men with positive screening results to specialists for accurate diagnosis and informed decisions about treatment before the disease progresses and impacts their overall health.

In 2012, the [\*\*United States Preventive Services Task Force \(USPSTF\)\*\*](#) recommended against PSA screening in healthy men finding that the potential risks of over-diagnosis and over-treatment outweighed the potential benefits. Following the release of this recommendation, the incidence rates of prostate cancer (the known number of men diagnosed with prostate cancer) fell while the number of late-stage cancers detected increased. In Pennsylvania, the calculated incidence rates of prostate cancer since the USPSTF recommendation have fallen by 25% across the prostate cancer risk groups.

Many in the health care community believe that fewer early-stage diagnoses is an ominous sign that prostate cancer deaths will rise in the coming years if prostate cancer screening particularly among high-risk men does not increase. Guidelines from the American Urological Association and the American Cancer Society recommend that men be informed of the risks and benefits of screening.

Therefore, the Pennsylvania Prostate Cancer Task Force recommends prostate cancer education and screening guidelines aligned with national cancer research and practice, and routine PSA screening of men between the ages of 50 and 70 years of age based on shared-decision making with their physicians.

### **Recommendations for Surveillance**

1. Incorporate Task Force-recommended screening guidelines as a core component of prostate cancer education and awareness.
2. Target screening to Black men and others with high risk indicators.
3. Develop a program to assist men in accessing screening, regardless of insurance coverage

## **Screening 1.**

### **Incorporate Task Force-recommended screening guidelines as a core component of prostate cancer education and awareness for men and providers.**

As implemented, the US Preventive Services Task Force recommendation against routine PSA testing has resulted in fewer men being screened, and of those fewer men, more men being diagnosed with late-stage prostate cancer that is harder to treat effectively.

Indeed, screening can have false positive results, which if not verified, can lead to over-diagnosis and over-treatment. However, most risks of screening can be overcome or significantly reduced by targeting screening to those men in whom prostate cancer is most likely to affect their quality of life during their life expectancy. While inconsistencies exist among screening guidelines, the [National Comprehensive Cancer Network®](#), [American Urological Association](#), and [American Cancer Society](#) generally agree that this target group is men ages 50 to 70 years old with life expectancies greater than 15 years. For these men, the benefits of PSA screening outweigh the risks.

The Prostate Cancer Task Force believes the decision whether or not to screen should be made between a man and his physician and that decision should be informed by guidelines that address age, risk factors for the disease, and life expectancy. The Task Force adapted the screening guidelines of the cancer and urology associations listed above as their screening guideline recommendation—a requirement of Act 66.

These guidelines are not a mandate for screening. They are intended as a starting point to prompt an individualized discussion and informed decision between a man and his physician about prostate cancer screening.

## **Guidelines for Prostate Cancer Screening**

adapted from the [\*\*National Comprehensive Cancer Network®, American Urological Association, and American Cancer Society\*\*](#)

1. For men under age 40 years old, no routine PSA screening is needed for healthy men.
2. For men aged between 45–50 years old, no routine PSA screening is needed for healthy men; however for patients who are Black or have a positive family history of more than one family member with prostate cancer, a one-time PSA level at 45 may be appropriate to provide a baseline for future PSA test results. In all cases, men should have a discussion with their physician about benefits and risks.
3. For men aged between 50–70 years old with life expectancies greater than 15 years, decisions about PSA tests should be based on a shared decision between patient and physician, acknowledging the known risks and benefits. Decision-making should emphasize that not every cancer detected needs to be treated and that a wide spectrum of effective treatments are available.
4. For men >70 years old, no routine PSA screening is needed for healthy men. For men in excellent health, screening until age 75 may be appropriate as decided by the patient and physician.

## **Actions**

- 1.1. Develop Continuing Medical Education (CME) webinar training for health care professionals on prostate cancer guidelines, including cultural and linguistic awareness and sensitivity.
- 1.2. Develop a toolkit for health care professionals on prostate screening guidelines.
- 1.3. Outreach to professional medical associations to determine best approaches for educating health care professionals.
- 1.4. Outreach to health systems and federally qualified health centers (FQHCs) to increase knowledge of prostate cancer screening guidelines.
- 1.5. Outreach to community health partners to promote prostate cancer screening among at-risk populations.

## **Performance Measures**

- ◆ Increases in screening rates among men ages 50-70, as well as men ages 45-50 who may be high-risk and men 70-75, as reported in BRFSS.

## **Implementation & Resources**

The cancer coalition known as the Stakeholder Leadership Team of the Cancer Advisory Board or CAB includes professionals from the listed organization types who help to disseminate the prostate cancer screening guidelines and encourage their incorporation into professional education materials.

### **Healthy Living Practices in Surveillance**

Obadiah Cole Foundation for Prostate Cancer is working with the University of Pittsburgh Graduate School of Public Health, Center for Health Diversity to evaluate the impact of its community health fairs.

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## **Screening 2.**

### **Target screening education and services to Black men and others with high risk indicators.**

Black 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 present at a higher stage of disease, therefore screening is important in this group.

Primary care physicians should emphasize prostate health education and discuss how prostate cancer screening guidelines apply to patients in these high-risk groups. Many FQHCs are the primary source of health care education for men who are uninsured or underinsured and live in medically underserved areas.

Community health workers (CHWs) have emerged as a valuable, cost-effective, and culturally competent segment of the health care workforce. They are trusted members of the communities they serve, often having overcome the same obstacles as their clients, and are adept at developing trusting, one-to-one relationships with those at risk for poor health outcomes.

#### **Actions**

- 2.1. Analyze surveillance data to identify high-risk populations and locations.
- 2.2. Encourage men with a family history of prostate cancer to discuss screening services with their physician.
- 2.3. Engage community health workers to encourage high-risk men to access screening services.
- 2.4. Engage community and non-profit organizations to encourage high-risk men to access screening services.

#### **Performance Measures**

- ➔ An increase in early detection (or decrease in advanced disease and mortality) of prostate cancer among Black men and men with other high risk factors.

#### **Implementation & Resources**

The Data Advisory Committee (DAC) exists to analyze and report cancer trends, including disparities that define high-risk populations, to the CAB and Pennsylvania Department of Health.

The Pennsylvania Prostate Cancer Coalition and health advocates are able to partner with communities and community organizations to educate in high-risk populations among the importance and availability of screening services.

## **Screening 3.**

### **Develop a program to assist men in accessing screening, regardless of insurance coverage.**

For many reasons, men are not as vocal as women about their health and need for assistance in addressing health concerns. These reasons include personal priorities for health and health care;

unfamiliarity with health care providers, services and costs; and fear of procedures and complications, among others.

Research indicates there is demonstrated effectiveness of CHWs in identifying and addressing barriers to adherence to cancer screening or treatment recommendations and working with patients to negotiate tailored plans of care. CHWs have improved care access and cancer screening behaviors, as well as reduced healthcare costs in minority communities, including Black and Hispanic communities. Health care delivery systems benefit from their community knowledge and cultural competency.

## **Actions**

- 3.1. Identify high risk uninsured and underinsured men, using insurance data and other sources.
  - 3.2. Encourage federally qualified health centers (FQHCs) to engage uninsured and underinsured men in discussions about prostate health.
  - 3.3. Engage community health workers to identify local community and clinical leaders who can provide one-on-one education and awareness on men's health and prostate health.
  - 3.4. Secure a prominent community leader/champion to give high visibility to initial leadership and leadership development.
  - 3.5. Develop grassroots, local teams whom men trust and respect to encourage men to talk with their doctors about prostate health, e.g.:
    - Faith-based organizations
    - Community-based organizations
    - Community health worker, patient navigator
    - Health system
    - Local health department
    - FQHCs
    - Business leaders and coalitions, especially personal care service providers, e.g. barbers
    - Sports figures, e.g. coaches, champions, and team leaders
- 3.6. Report successful efforts as Healthy Living Practices on [LiveHealthyPA.com](#).

### **Performance Measures**

- ➔ Successful local programs reported and verified as Healthy Living Practices on [LiveHealthyPA.com](#)

## **Implementation & Resources**

The Data Advisory Committee (DAC) may be able to analyze health and insurance data to define high-risk men, e.g. by geography. The Pennsylvania Prostate Cancer Coalition can compile a list of screening service locations near to high-risk populations. The Department of Health can support relevant training and request model practices for community health workers regarding men's health and access to screening services.

## **Recommendations for Prostate Cancer Diagnosis & Treatment**

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While screening may suggest that cancer is present, only a biopsy can provide a doctor with the information needed for a diagnosis. If cancer is found, the doctor assigns two scores: a Gleason score to indicate how likely the cancer is to grow and spread; and a Tumor-Node-Metastasis or TNM score to describe the size and extent of the primary tumor and characterize its reach to nearby lymph nodes or distant sites in the body. From the Gleason and TNM scores, the doctor makes a diagnosis of prostate cancer and stage and begins to select appropriate options for treatment.

In addition, physicians can employ one or more other diagnostic tools to enhance a patient's diagnosis and to refine and select his treatment options. These techniques may be used repeatedly to assess the presence or growth of cancer after treatment and at other points of care and decision-making. A listing of diagnostic techniques is provided on the following page.

Prostate biopsies can result in side effects and allergic reactions to anesthesia as well as leading to infections in some men. Research continues to improve diagnosis and reduce side effects.

Surgery and radiation therapy remain the mainstay of definitive local treatment of men with clinically localized prostate cancer. These treatments have been refined through the years as the understanding of prostate cancer pathology has evolved and technology has improved. Yet modern, state-of-the-art treatment methods are highly effective with fewer, less severe impacts and side effects than with these conventional methods and are widely available throughout the Commonwealth. Additional methods are undergoing clinical trials.

Active surveillance, careful monitoring to track an expected slow progression of disease, has emerged as a viable management option in men diagnosed with very low risk or low risk prostate cancer as defined by the National Comprehensive Cancer Network (NCCN). Active surveillance should be discussed with men diagnosed with prostate cancer in these risk groups. Active surveillance is generally not advised in otherwise healthy patients with intermediate or high risk prostate cancer as defined by NCCN.

Cancer affects the body but also the mind and spirit. Additional evidence-based supportive therapies can help men with prostate cancer manage related side effects, so they can maintain their strength and stamina throughout treatment and maintain their quality of life.

A listing of supportive treatment options is also provided on the following page.

## Prostate Cancer Diagnostic Options

- A biopsy is a procedure to remove and test tissue to determine if cancer cells are present, how they are patterned, and the cancer stage.
- A bone scan is an imaging test that detects cancerous cells (and other bone ailments) and evaluates bone health before treatment.
- A CT or CAT scan (computed tomography or computed axial tomography scan) is an X-ray procedure to produce detailed images of the bones, organs and tissues, including tumors.
- A digital rectal exam or DRE is a physical assessment of the prostate gland to observe lumps or other abnormalities with using gloved, lubricated finger inserted into the rectum.
- A genetic test examines a urine sample for the presence of prostate cancer or biomarkers in prostate tissue.
- Magnetic resonance imaging (MRI) distinguishes cancerous cells, particularly within the soft tissues of the body; it is used before or after treatment or during a biopsy procedure.
- PET/CT scan combines positron emission tomography (PET) and computed tomography (CT) to reveal the structure and function of cells and tissues in the body in a single imaging session.
- A PSA test is a blood test for prostate-specific antigen.
- Ultrasound, also known as sonography, is an imaging technique used before, during or after procedures to identify locations of abnormal tissue.

## Prostate Cancer Treatment Options

- Active surveillance is careful monitoring to track an expected slowly progressing prostate cancer.
- Prostatectomy is a surgical procedure to remove part or all of the prostate; surrounding tissues and nearby lymph nodes may also be removed.
- Radiation therapy (also called radiotherapy) is a cancer treatment

that uses high doses of radiation to kill cancer cells and shrink tumors.

- Cryosurgery (also called cryotherapy) is the use of extreme cold produced by liquid nitrogen (or argon gas) to destroy abnormal tissue.
- External beam radiation therapy uses high-energy beams outside the body to reduce or eliminate tumors inside the body.
- Stereotactic body radiation therapy (SBRT), also known as cyber knife, is a form of radiation that focuses high-power energy on a small area of the body in a non-surgical procedure.
- Hormone therapy, also known as androgen deprivation therapy or ADT, is designed to stop testosterone from fueling cancer growth.
- Immunotherapy boosts the body's immune system to fight cancer cells in late-stage cancers.
- Brachytherapy, also called seed implantation, is a form of radiation therapy that implants radioactive seeds or pellets close to the cancer cells.
- Chemotherapy uses drugs to kill cancer cells or restrict their growth.
- Radiopharmaceuticals are drugs that contain radioactive materials called radioisotopes that are used in small amounts for imaging tests and in larger doses to kill cancer cells and shrink tumors.

## Supportive Treatment Options

- Nutrition therapy provides dietary recommendations during treatment.
- Pain management focuses on reducing pain and improving quality of life.
- Naturopathic medicine uses natural, non-toxic therapies to encourage the self-healing process.
- Mind-body medicine supports emotional, mental, and social well-being through counseling and support groups.
- Oncology rehabilitation uses therapeutic exercises, stimulation and other therapies to build or rebuild strength and energy in the body after treatment.

### **Recommendations for Diagnosis & Treatment**

1. Promote the use of new technologies for enhanced diagnosis of prostate cancer by physicians.
2. Encourage active surveillance as the preferred approach for men diagnosed with “very low risk” and “low risk” prostate cancer.
3. Educate men to seek proven treatments.
4. Increase patient participation in clinical trials for new diagnosis and treatment methods.
5. Align patient and provider incentives for diagnosis and choice of treatment.

## **Diagnosis & Treatment 1.**

### **Promote the use of new technologies for enhanced diagnosis of prostate cancer by physicians.**

Today, most doctors rely on the patient’s PSA score and Gleason score to diagnose the cancer stage or risk for growth and spreading. However, there are promising, emerging technologies that can further risk-adjust patients and refine treatment options. Genomic tests are one example particularly suitable for enhancing the diagnosis of low risk patients.

Physicians and patients should be aware of multi-parametric MRI, also known as fusion biopsy, as a modern imaging method to aid in determining the location of hard to find lesions for more accurate diagnosis and treatment selection. Insurance companies also need to accept and provide coverage for use of these technologies – (see Policy page 47).

### **Actions**

- 1.1. Encourage physicians to educate patients about relevant diagnostic technologies.
- 1.2. Increase awareness of evolving diagnostic techniques, appropriate technique selection, and associated ethical considerations.
- 1.3. Expand telemedicine for physician-to-physician consultation, where available.

### **Performance Measures**

- ➔ Increased awareness of diagnostic tools
- ➔ Survey of Pennsylvania-based cancer institutes for use of telemedicine or electronic consultation.

## **Implementation & Resources**

The Pennsylvania Medical Society, other professional associations and health systems would be logical leaders for provider’s continuing education on emerging diagnostic techniques. The Pennsylvania Department of Insurance may be helpful in ensuring coverage for such services. The Department of Health can promote the use of telemedicine.

## **Diagnosis & Treatment 2.**

### **Encourage active surveillance as the preferred approach for men diagnosed with “very low risk” and “low risk”<sup>5</sup> prostate cancer.**

Treatment of men with low risk prostate cancer puts an undue burden on the patient and medical establishment and has contributed to the over-treatment effect well described in the prostate cancer literature. Over the past five years, research has shown that a decision not to treat or intervene in slowly progressing prostate cancers while continuing to carefully observe the patient has not increased mortality, has maintained quality of life, and saved millions in health care costs.

Active surveillance is the monitoring of a low grade or indolent prostate cancer patient for signs of disease progression without interventions such as radiation or other therapies. This non-curative management approach differentiates between cancers with a true indolent (slow) course and cancers with the biological potential to progress to clinically significant disease. Evidence has supported the long-term safety of active surveillance protocols.

Most active surveillance protocols call for semi-annual exams with PSA testing and repeated prostate biopsies. Evidence has shown that the use of multi-parametric MRI can help decrease the need and cost for repeat biopsies for men on active surveillance. Genomic tests can help to determine the aggressiveness of the disease and the appropriateness of active surveillance in this group.

Prostate cancer experts agree that active surveillance of prostate cancer should be the principal form of treatment to all men diagnosed with “very low risk” prostate cancer. In addition, active surveillance should be discussed as a primary option for all men with “low risk” prostate cancer.

In multiple large clinical series, there has never been a patient with Gleason 6 prostate cancer with metastatic disease. Treatment of men with low risk prostate cancer puts an undue burden on the patient and medical establishment and has without question contributed to the over-treatment effect well described in the prostate cancer literature.

#### **Actions**

- 2.1. Educate physicians to discuss active surveillance as a viable treatment option for very low risk and low risk patients.
- 2.2. Implement data collection on active surveillance outcomes. (See Surveillance, page 18)

#### **Performance Measures**

- ♦ Survey of urologists utilizing active surveillance.

<sup>5</sup> The National Comprehensive Cancer Network defines risk groups in its Guidelines for Clinical Practice and Guidelines for Patients for Prostate Cancer as a foundation for a physician-patient discussion about treatment options.

## **Implementation & Resources**

PURC currently monitors the use of active surveillance among the patients served by its member organizations. While not operating statewide, PURC could share its findings on active surveillance with the professional associations, health systems, and cancer institutes, academic medical centers that offer continuing education to providers.

PURC could also provide to an initial count or rate of use for active surveillance. Along with data from the PA Cancer Registry, a statewide estimate of the use of active surveillance could be made. Once a statewide surveillance system is established, the use of active surveillance could be measured, not estimated.

### **Diagnosis & Treatment 3. Educate men to seek proven treatments.**

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There are multiple effective treatment options for men with different stages of prostate cancer, as outlined above, as well as highly advertised treatment methods that have not been rigorously tested in a clinical trial setting. The prime example is focal therapy, which is under study in several ongoing Phase 3 trials but has not been proven effective to date.

It is incumbent upon providers to discuss treatment options with patients prior to decision-making. This discussion should educate patients about evidence-based treatments relevant to their diagnosis and treatment effectiveness, side effects and costs, as well as treatments undergoing clinical trials (see Diagnosis & Treatment 4, page 30).

Beyond clinical effectiveness, continued research is needed to evaluate the cost effectiveness of prostate cancer treatments. This requires data sharing between providers of treatment services and insurance companies that pay for services.

Policy and practice must be supported by treatments that have been proven effective by randomized, clinical trials.

#### **Actions**

- 3.1. Educate patients about proven, i.e., evidence-based, treatment options.
- 3.2. Emphasize provider ethics to ensure patients are provided with information about all treatment options relevant to their diagnosis.
- 3.3. Increase data sharing and analytics among between payers and providers to promote a better understanding of the cost effectiveness of various treatments.

#### **Performance Measures**

- ➔ Findings on the cost effectiveness of prostate cancer treatments

## **Implementation & Resources**

Professional medical associations and health systems would be logical leaders for provider's continuing education on patient education and provider ethics. Insurers, health systems, and academic medical centers would be practical partners for the analysis.

## **Diagnosis & Treatment 4.**

### **Increase patient participation in clinical trials for new diagnosis and treatment methods.**

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Clinical trials advance evidence-based medicine and improve the quality of life for patients. Trials test new drugs and drug combinations, surgical and radiation therapy techniques, diagnostic technologies, and strategies for preserving quality of life for men undergoing treatment for prostate cancer. Men at all stages of prostate cancer should have access to clinical trials although very few cancer patients participate in these studies.

The decision to participate in a clinical trial should be made jointly by the patient and physician, both of whom need to understand the potential risks and benefits of the trial. Provider recommendation is one of the biggest predictors of patients enrolling in a clinical trial. Studies have shown that patients who felt that their doctors communicated in a way that built alliances, provided support, and explained the trial in understandable language were more likely to choose to participate in a trial once offered. In addition, the perspectives of the patients' support network and patients who have previously participated in clinical trials can be helpful in reaching a decision.

[\*\*A Fox Chase Cancer Center 2007 study\*\*](#) found while most oncologists recognize the importance of clinical trials, some find it difficult to refer patients. These barriers included concerns about patients' willingness to be randomly assigned to treatment and physicians' tendencies to favor clinical trials for patients with late-stage disease or disease that has not responded to standard treatment—patients who may actually be less likely to benefit from an experimental therapy.

The [\*\*Commission on Cancer sets standards\*\*](#) to ensure quality, multidisciplinary and comprehensive cancer care delivery in health care. The accreditation agency requires hospitals, freestanding cancer centers and cancer program networks to meet a minimum required percentage of patients accrued to cancer-related trials each year (Standard 1.9 Clinical Trial Accrual). Patient accrual must be monitored and reported to the facility's cancer committee each year.

The [\*\*National Cancer Institute \(NCI\)\*\*](#) and the [\*\*US National Institutes of Health\*\*](#) each maintain a database of supported clinical studies.

The patient's cost of participation in a clinical trial must be part of the decision-making. Most health insurance plans, including Medicare, cover patient care costs in clinical trials if the patient is eligible for the trial, it is an approved trial, and the trial involves doctors and hospitals within the plan's network of providers. The research component, such as lab tests or imaging tests performed solely for the trial are not covered by insurance plans. Patients must be informed of insurance coverage prior to participation and assisted in securing financial support for tests outside of insurance coverage.

#### **Actions**

- 4.1. Educate patients and providers to the availability and benefits of National Cancer Institute-approved clinical trials.
- 4.2. Support payer coverage of patient participation in National Cancer Institute-approved clinical trials.

## **Performance Measures**

- ◆ Increase in the number of Pennsylvania-based patients in NCI-approved clinical trials.

## **Implementation & Resources**

Physicians and patients need a better understanding of the availability of clinical trials. The American Cancer Society and National Cancer Institute promote their trials publicly online. Professional medical associations can help educate physicians about trial sources and suitability for certain patient types.

## **Diagnosis & Treatment 5.**

### **Align patient and provider incentives for diagnosis and choice of treatment.**

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If the results of a screening (PSA blood test or a digital rectal exam) are suspicious, men will be referred to an urologist for diagnosis. The diagnosis of prostate cancer is based on a direct biopsy of the prostate gland, performed either rectally or through the perineum of the patient. While there are some potential complications of a biopsy, like infections and blood in the urine, most patients tolerate the procedure without a problem. There are several new radiologic modalities such as multi-parametric MRI than can aid in the diagnosis of prostate cancer. Furthermore, there are genomic tests and other blood tests (like the Phi test) that can also help in the diagnosis.

The mainstay of treatment is either surgery or radiation therapy. For surgery, the options are generally robot assisted laparoscopic prostatectomy or open prostatectomy for the removal of the prostate. In radiation therapy, there are multiple options for the definitive treatment of prostate cancer. These include external beam radiation therapy or brachytherapy (prostate implants).

There are numerous ways to deliver high quality radiation in 2016. With external beam radiation therapy, options include intensity modulated radiation therapy (IMRT) which consists of conventionally fractionated IMRT (1.8-2 Gy per fraction) for approximately 8-9 weeks (76-80 Gray [Gy]). Although 8-9 weeks of conventionally fractionated radiotherapy IMRT has been demonstrated to be effective and well tolerated, the long treatment time can result in increased healthcare costs and is inconvenient for some patients. An alternate external beam option is to use hypofractionated radiation therapy (fewer total fractions with a higher dose per fraction). Hypofractionated radiation treatment has been demonstrated in low-risk prostate cancer to be equally effective with similar side effects compared with IMRT. Permanent seed low-dose rate (LDR) and temporary high dose rate (HDR) prostate implants are also two modern high quality treatment options available for men with clinically localized prostate cancer. For this treatment, the radiation is implanted directly into the prostate and these treatments can be done in one or two days.

One of the challenges in choosing a therapy is recognizing the biases that both the provider and patient have. It is important to have an open dialogue between the stakeholders of any financial conflict-of-interests that the provider could potentially have. It is imperative that a patient seek counsel with an urologist, radiation oncologist, and his primary care doctor to reach a full understanding of the options to available to them.

Patients should ask about these biases or conflicts as they relate to treatment choice. Patients should be guided to ask about all treatment options available to them. For example, the California Prostate Cancer Coalition publishes best practices for informed decision making criteria for screening, treatment and quality of life options

## **Actions**

- 5.1. Encourage and educate patients to ask their diagnosing physician about competing interests of treatment choice and physician payment.
- 5.2. Educate patients to engage primary care and specialty care physicians in decision-making. Patients should solicit input from a radiation oncologist in addition to the diagnosing urologist, internist, and family practitioner.
- 5.3. Encourage physicians to involve the patient in decision-making using a tool that presents treatment options relevant to their diagnosis in a clear and balanced fashion.

## **Performance Measures**

- ◆ Increase in the number of Pennsylvania-based patients in NCI-approved clinical trials.

## **Implementation & Resources**

The American Cancer Society can help by educating patients to take an active role in by asking questions, seeking clarification, and confirming care coordination before making treatment decision. It can also advocate for physician education that emphasizes patient education and care coordination.

## **Recommendations for Prostate Cancer Survivorship**

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Approximately 10,000 men in Pennsylvania are diagnosed with prostate cancer annually. These men will be treated for their cancer and can survive for years with complications and physical, psychosocial, and economic issues that can go on and occur even after treatment is completed. There must be an increased focus on improving the health and quality of life of prostate cancer survivors and caregivers from diagnosis through treatment and post-treatment. Cancer survivors have an increased risk for developing other cancers so appropriate follow-up care is critical as well as coaching survivors to make healthy choices such as tobacco cessation, maintaining a healthy weight, reducing alcohol consumption and engaging in physical activity. Prostate cancer survivors must have access to health care and follow-up treatment, assistance with the late effects of treatment, screening for second cancers, and be able to live a quality life.

Racial or ethnic minority survivors between the ages of 40-64 are more likely to experience financial hardship. Survivors who undergo treatment or experience a recurrence of more than one primary cancer were more likely to suffer a financial hardship and productivity losses.<sup>6</sup>

Survivorship care plans improve post-treatment by aiding the survivor to properly manage their own care and guide the coordination of care among the oncology care team and the primary care provider. Improved communication is necessary among primary care providers and treating oncology specialists regarding survivorship care plan components and in determining roles and responsibilities for the survivor's condition and resources available in the primary care setting.

The American Society of Clinical Oncology (ASCO) has defined minimum data elements to be included in a survivorship care plan. Facilities accredited by the Commission on Cancer (CoC) are required to have a survivorship care plan that includes the ASCO data elements for 25% of their eligible patients who have completed cancer treatment by 2016 and to 75% of their eligible patients by the end of 2018.

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<sup>6</sup> Supporting Cancer Survivors through Comprehensive Cancer Control Programs, George Washington Cancer Center, September 2016.

### **Recommendations for Survivorship**

- 1.. Promote initiatives that improve the quality of life for prostate cancer survivors by addressing the physical, psychological and socioeconomic effects.
2. Increase knowledge among health care providers about the essential elements, benefits and indications for survivorship.
3. Promote healthy lifestyles and follow-up care for prostate cancer survivors.
4. Improve the coordination of care among all treating primary (PCP) and specialty care (SCP) physicians through survivorship care planning.
5. Support the use of palliative care for metastatic prostate cancer patients.

### **Survivorship 1.**

#### **Promote initiatives that improve the quality of life for prostate cancer survivors by addressing the physical, psychological and socioeconomic effects.**

Physical side effects of prostate cancer treatment may include pain, urinary incontinence, impotence, diarrhea, fatigue, and loss of sex drive. Side effects vary from person to person and by the type and extent of the treatment that has occurred. Assessment and management of physical and psychosocial long-term and late effects is essential to improve the quality of life for prostate cancer survivors.

#### **Actions**

- 1.1. Engage healthcare systems and community partners to advance survivorship programs that include patients, spouses/partners and other caregivers.
- 1.2. Develop a systematic approach for measuring quality of life for prostate cancer survivors. See also Surveillance 4, i.e. a statewide database for treatment outcomes.
- 1.3. Advocate for insurance coverage of survivorship-related services.
- 1.4. Encourage the formation of and participation in support groups for prostate cancer survivors.
- 1.5. Encourage patients to use digital applications, e.g. electronic journals, mobile phone apps, etc., to document symptoms and side effects for sharing with clinicians and caregivers.

#### **Performance Measures**

- ➔ Number of organizations with survivorship programs
- ➔ Assessment of survivorship program impacts and benefits electronic consultation.

#### **Implementation & Resources**

Various actors in the private and non-profit sectors can help to implement this recommendation. Health systems can seek ways to expand survivorship care planning. Primary care and specialty care physicians should strengthen communications. Non-profits can look for opportunities to survivorship programs, like LIVESTRONG at the YMCA, across the state. The American Cancer Society is expected to help implement the statewide palliative care plan. Other organizations provide prostate cancer support and education.

## **Survivorship 2.**

### **Increase knowledge among health care providers about the essential elements, benefits and indications for survivorship.**

Survivorship care is best delivered through a multidisciplinary team of physicians, nurses, and providers in the fields of social work, psychology, rehabilitation, and genetic counseling. All health providers who care for and encounter the growing number of prostate cancer survivors must have knowledge of how to address the complex needs of prostate cancer survivors including the risks of cancer treatments, the probabilities of cancer recurrence and second cancers, the effectiveness of surveillance and interventions for late effects, the need to address psychosocial concerns, and effective use of community-based resources. However, the availability of educational resources, such as the [\*\*National Cancer Survivorship Resource Center at the George Washington Cancer Institute\*\*](#), has not been well distributed/publicized to the health community.

#### **Actions**

- 2.1. Collect evidence-based and credible educational resources (tool kit) for health care providers on LiveHealthyPA.com.
- 2.2. Develop channels for disseminating information to physicians, physician assistants, nurses, nurse practitioners, nurses, and hospital administrators via LiveHealthyPA.com.
- 2.3. Promote continuing education programs for existing health care providers.
- 2.4. Increase provider participation in the survivorship learning modules offered through the George Washington Cancer Institute.

#### **Performance Measures**

- ◆ Number of health care providers accessing online information
- ◆ Number of health care providers completing George Washington Cancer Institute training modules

#### **Implementation & Resources**

The American Cancer Society is expected to help implement the statewide palliative care plan. The Comprehensive Cancer Control Program within the Department of Health will collect survivorship educational opportunities on the LiveHealthyPA.com website. Professional health and medical associations can draw from LiveHealthyPA.com for physician education.

#### **Healthy Living Practices in Survivorship**

Thomas Jefferson University (Dr. Ronald Myers) has developed a decision counseling tool to facilitate treatment decision making. Using the tool has been associated with decreased fear/anxiety. The research team working with Dr. Myers is also studying the impact of genetic prognostic tools on decision making.

Contact: [Dr. Ronald Myers@jefferson.edu](mailto:Dr.Ronald.Myers@jefferson.edu)

## **Survivorship 3.**

### **Promote healthy lifestyles for post-treatment prostate cancer survivors.**

Patients and their support networks need to understand the importance of healthy lifestyles and appropriate post-treatment care. The goal is to minimize pain, disability and psychosocial issues post-treatment and ensure a healthy life for survivors. Educational resources are essential to aiding primary care practitioners, prostate cancer survivors, spouses, partners and caregivers. While reliable and relevant resources exist, they must be accessible through a platform for sharing.

Providers can promote healthy lifestyles and direct survivors to online resources and programs such as:

- The [American Cancer Society's prostate cancer survivorship care guidelines](#) can assist health care professionals in providing post-treatment care for cancer survivors.
- [Us TOO](#), an international prostate cancer support group, provides comprehensive educational materials and resources along with support services that include more than 300 volunteer-led support groups across the United States and abroad.
- [LIVESTRONG at the YMCA](#) is an evidence-based program to help adult cancer survivors reclaim their health and mental and physical well-being following a cancer diagnosis. The Pennsylvania Comprehensive Cancer Control Program is working to increase the number of LIVESTRONG programs currently operational across Pennsylvania.

#### **Actions**

- 3.1. Educate prostate cancer survivors, support networks, and providers on the importance of healthy behaviors in line with the American Cancer Society Survivorship Guidelines.
  - Encourage healthy eating, physical activity and drinking behaviors.
  - Increase enrollment in tobacco cessation programs.
  - Increase enrollment in LIVESTRONG at the YMCA cancer survivorship programs.
- 3.2. Promote the availability of educational materials and resources to aid survivors in managing their post-treatment cancer to patients and providers.

#### **Performance Measures**

- ◆ Number of LIVESTRONG at the YMCA programs in Pennsylvania
- ◆ Number of survivors completing the LIVESTRONG at the YMCA programs
- ◆ Number of survivors enrolled in tobacco cessation programs

#### **Implementation & Resources**

All sectors can promote healthy lifestyles that strengthen the body and mind in their public education efforts.

### **Healthy Living Practices in Survivorship**

LIVESTRONG at the YMCA is an evidence-based program that helps adult cancer survivors reclaim their health and wellbeing following a cancer diagnosis. Participating YMCAs create a welcoming community in which survivors can improve their strength and physical fitness, diminish the severity of therapy side effects, develop supportive relationships, and improve their quality of life. Since 2007, the LIVESTRONG Foundation has been the YMCA's partner in developing and delivering LIVESTRONG at the YMCA.

Contact: [Susanjacobs@ymcaharrisburg.org](mailto:Susanjacobs@ymcaharrisburg.org)

## **Survivorship 4.**

### **Improve the coordination of survivorship care among primary and specialty care physicians.**

Survivorship care plans address the unique long-term and late-term physical, psychosocial, practical and financial effects of cancer. In addition, these plans should emphasize the importance of lifestyle changes and adopting positive lifestyle behaviors. Further, survivorship care planning should incorporate the cultural, linguistic, and sexual preferences of the prostate cancer patient.

A survivorship care plan developed by a multi-disciplinary team helps transition the patient back to the primary care setting and improves communication between the specialist and the primary care physician. Commission on Cancer (CoC), Standard 3.3 requires cancer programs to provide a summary of treatment and a follow-up plan to all patients completing cancer treatment in order to earn and maintain CoC accreditation.<sup>7</sup>

Primary care physicians benefit from more knowledge about the patient and can personalize post-treatment regimens. The primary care physicians may need supports to manage these complicated problems in the outpatient setting. The Oncology Medical Home model is emerging as a patient-focused approach involving the patient and their entire medical condition. It engages both primary care physicians and specialists in a systematic, evidence-based approach.

Oncology Medical Homes are required to utilize a certified Electronic Health Record (EHR) to capture and share patient data efficiently and improve care coordination. Survivorship planning should be part of the patient's EHR containing information from all facilities and physicians involved in the patient's care. While the majority of health systems now utilize EHRs, the platforms between physician offices and health systems may not be compatible.

Health care providers must be educated on how to seek reimbursement for the time spent in completing and administering survivorship plans for prostate survivors through the use of proper CPT coding for education and surveillance.

#### **Actions**

- 4.1. Engage health systems to adopt multi-disciplinary team approaches to survivorship planning.
- 4.2. Engage appropriate community-based and peer support resources in survivorship planning and care.
- 4.3. Monitor the expansion and effectiveness of oncology medical homes in Pennsylvania.

<sup>7</sup> American College of Surgeons

### **Performance Measures**

- ◆ Number of health systems utilizing multi-disciplinary team approaches
- ◆ Number of oncology medical homes in Pennsylvania

### **Implementation & Resources**

The Commission on Cancer has a key role in encouraging care coordination in cancer hospitals. Professional health and medical associations can support this recommendation by sharing best practices.

## **Survivorship 5.**

### **Support the use of palliative care for prostate cancer patients.**

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Palliative care is delivered throughout a patient's experience with cancer. It begins at diagnosis and treatment and continues through follow-up care to the end of life. The goal of palliative care is to prevent or treat, as early as possible, the symptoms and side effects of cancer and its treatment, in addition to the related psychological, social, and spiritual problems. Palliative care differs from hospice care as it is offered earlier in the disease process. Hospice care is a form of palliative care that is provided when treatment is no longer controlling the disease and the patient is approaching the end of life, usually defined as having a life expectancy of 6 months or less.

In 2016, through Comprehensive Cancer Control Program funds, the PA Palliative Care Task Force was assembled to develop a statewide approach for improving and expanding palliative care for cancer (oncology) patients as the Pennsylvania Plan for Oncology Palliative Care. This document can be viewed at: [Pennsylvania Plan for Oncology Palliative Care](#)

### **Actions**

5.1 Support the goals and objectives of the PA Plan for Oncology Palliative Care.

### **Performance Measures**

- ◆ Implementation of actions as described in the Pennsylvania Oncology Palliative Care Plan.

### **Implementation & Resources**

The Pennsylvania Palliative Care Task Force is expected to lead implementation of the Pennsylvania Plan for Oncology Palliative Care in cooperation with the American Cancer Society. The cancer coalition known as the Stakeholder Leadership Team can assist through its survivorship and palliative care work group. Private sector participation will also be strongly encouraged.

## **Recommendations for Prostate Cancer Education**

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Variances exist in how men and women receive messages and take action about their health. A study from the American Academy of Family Physicians shows women are more likely to go to the doctor for screening tests and medical advice, but men have to be motivated to do so. These gender disparities also exist by ethnicity. Black men are less likely to seek health care until the symptoms appear. Researchers attribute the unwillingness to participate in prostate cancer prevention activities to lower income, lower educational levels, poor access to health care, lack of awareness, past negative experiences, physician attitudes, and differing cultural and religious attitudes. Many myths and misperceptions still exist, particularly that prostate cancer screening may involve procedures that can result in decreased sexual ability. However, it is true that prostate cancer screening may lead to treatments and procedures that may result in decreased sexual ability.

Cancer screening guidelines recommend that men have a conversation with their doctor about a proactive prostate health plan, based on their age and risk factors, including family history. This discussion should include whether prostate cancer screening is appropriate. For men diagnosed with prostate cancer, treatment and surveillance options exist based on factors such as age, general health, and possible side effects of treatment. In all cases, patients and their families need to be better educated about prostate health and be engaged in the decision-making of screening and if diagnosed, about treatment options.

The Pennsylvania Prostate Cancer Coalition is one of many education partners that promote prostate cancer awareness, education and the advocacy for responsible screening. The Coalition partners with local sponsors to reach men and people in their sphere of influence in non-medical spaces – sporting venues, car shows, museums, restaurants, breweries, and community centers – with educational messages through events, exhibits, and media campaigns.

### **Recommendations for Survivorship**

- 1.. Advance educational strategies emphasizing the importance of men's health, including prostate health and screening, when appropriate.
2. Educate men to make informed decisions regarding treatment decisions.
3. Encourage informal influencers to engage men in being proactive about prostate health.
4. Educate primary care physicians and other health care providers about the importance of engaging men in discussions about prostate health.

## **Education 1.**

### **Advance educational strategies emphasizing the importance of men's health, including prostate health and screening, when appropriate.**

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It is not perceived as masculine to get screenings or necessary medical care so men are often reluctant to address their own health. While women will rely on social networks, men were 2.5 times more likely than women to lack social supports<sup>8</sup>. For men to take an active role in their health, the male gender role and beliefs about health and vulnerability must be addressed. If men took charge of their health and recognized the importance of screening, prostate cancer would be discovered earlier and treatment initiated earlier.

The health care industry has long recognized the role of women in making health care decision-making and responded by creating service lines dedicated to breast care, OB/GYN care, and cosmetic services. To attract the untapped male population, health systems must consider establishing male-oriented facilities sensitive to men's working schedules staffed with culturally-sensitive medical teams who can communicate effectively with minority men.

Promotional campaigns must employ evidence-based, culturally-sensitive approaches to motivate men to take action. While women prefer to know the benefits and implications, men value hard-core facts and expertise. Media outlets that use prominent spokespeople can catch the attention of the viewers and readers. Websites and cell phone applications allow men to seek health care information privately without appearing to compromise the strong male stereotype.

## **Actions**

- 1.1. Research effective, evidence-based prostate health educational/media campaigns for engaging the male population in their own health care, including specific approaches to target Black and other high risk populations.
- 1.2. Identify settings where men can feel comfortable talking about and addressing their prostate health conditions.
- 1.3. Develop and evaluate prostate health educational and screening campaigns targeted to high-risk males, using evidence-based media approaches.
- 1.4. Engage health systems in the development of men's health centers or programs that focus on men's prostate health and prostate cancer screening.
- 1.5. Develop local partnerships among health care providers, community organizations, and public health agencies, i.e. community-clinical linkages, to promote prostate health and men's health.

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<sup>8</sup> New England Research Institute Study

### **Performance Measures**

- ◆ Number of prostate health campaigns using evidenced-based approaches
- ◆ Evidence of impact of Pennsylvania-based campaigns Increase in screening by Black and other high risk groups per BRFSS
- ◆ Increase in men's health centers or programs that focus on men's prostate health.
- ◆ Increase in the number of community-clinical linkage programs identified thorough Healthy Living Practices on LiveHealthyPA.com. (Action 1.4)

### **Implementation & Resources**

The Department of Health's Comprehensive Cancer Control Program, the Stakeholder Leadership Team, and cancer institutes can collaborate on the research effort.

Non-profit and faith-based organizations can connect with hospitals and other providers to develop community-clinical linkages. The Pennsylvania Prostate Cancer Coalition and the SLT can provide leadership support to non-profits.

### **Education 2.**

#### **Educate men to make informed decisions regarding treatment.**

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Men need to be better informed about risk factors for prostate cancer and the potential benefits and risks of screening in order to be fully engaged in the decision-making to be screened. The American Cancer Society and the American Urological Association recommend that men talk to a health care professional about the pros and cons of prostate cancer screening.

Prostate cancer treatment programs have migrated away from radical and invasive procedures to greater emphasis on active surveillance and more frequent PSA testing. Each treatment choice has benefits and risks, and patients need to be engaged with their health care providers in order to make an appropriate decision for each course of action.

The key to having successful outcomes in reducing deaths and disability from prostate cancer is developing an atmosphere of trust and effective communication between the patient and his health care provider. Since men may value the word of community leaders, local organizations may be more influential in encouraging this targeted population to seek medical advice.

### **Actions**

- 2.1. Work with the health care industry to use culturally-appropriate linguistic and symbolic materials.
- 2.2. Engage health systems and Federally Qualified Health Centers to offer prostate health programs in appropriate community settings.
- 2.3. Develop awareness campaigns to motivate high-risk males to take action.

## **Performance Measures**

- ◆ Use of culturally-appropriate linguistic and symbolic materials.
- ◆ Increase in men's health centers or programs that focus on men's prostate health.
- ◆ Development of targeted awareness campaigns for high-risk males

## **Implementation & Resources**

The SLT can encourage professional health associations to educate their members about effective communication with the targeted population.

The Pennsylvania Prostate Cancer Coalition, alone or in partnership with local communities and organizations, can use traditional and social media to help men understand the importance of seeing a healthcare provider with questions about screening.

## **Education 3.**

### **Encourage informal influencers to engage men in being proactive about prostate health.**

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Effective prostate cancer education approaches may engage informal influencers—those who are not part of the medical community, yet have the ability to influence the behavior of others. Many Black males do not feel comfortable talking to a health care provider and are more likely to seek informal health advice from family members, friends, community centers, and churches. Support persons such as a spouse, partner or significant other play an important role in influencing the man's decision to seek health care or screening. Women have long been the undisputed family health care decision-makers, making about 80 percent of the health care decisions in the family<sup>9</sup>. Women typically take the lead role making sure their loved ones are getting screened or are getting the care they need.

Community health workers may be able to influence health care decision-making, carrying out their role in the local community as a frontline public health worker with a close relationship with the community served. Barbers act as community health workers in some communities, using their influence with clientele to deliver prostate cancer education<sup>10</sup>. Some men are more comfortable speaking with other prostate cancer survivors. Prostate cancer survivors can be engaged as community health workers or support group advocates. In sum, men will more likely act based on the relationship in the community that have a high degree of trust and identity.

## **Actions**

- 3.1. Design prostate cancer educational materials for both the male and his partner.
- 3.2. Empower women to be proactive regarding the prostate health of their spouse, partner or significant other.
- 3.3. Link faith-based organizations and community groups with health systems in local campaigns for prostate health.

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<sup>9</sup> U.S. Department of Labor. General Facts on Women and Job Based Health. Retrieved 10 July 2013, from [www.dol.gov/ehsa/newsroom/fshlth5.html](http://www.dol.gov/ehsa/newsroom/fshlth5.html)

<sup>10</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2862382/>

- 3.4. Work with community health workers in health systems to engage the hard to reach, at high risk population.
- 3.5. Incorporate prostate health into the curricula of community health worker training programs.
- 3.6. Promote successful community-based approaches for replication through Healthy Living Practices on LiveHealthyPA.com.

#### **Performance Measures**

- ◆ Prostate health component included in community health worker training
- ◆ Successful community-based approaches added to Healthy Living Practices on LiveHealthyPA.com.

#### **Implementation & Resources**

The Department of Health can begin this work with the development of a prostate/men's health work group of the Stakeholder Leadership Team to interface with providers and educators and continue support for LiveHealthyPA.com as the repository for best practices related to public health.

The Pennsylvania Prostate Cancer Coalition can also outreach to faith-based and community groups.

#### **Healthy Living Practices in Education**

The **"It's an Us Problem"** campaign educates women about the incidence and risk factors for prostate cancer. It encourages women to help the men in their lives understand the importance of prostate cancer awareness.

Contact: Colonel (Retired) James E. Williams, Jr., [jimpc2@comcast.net](mailto:jimpc2@comcast.net)

#### **Education 4.**

#### **Educate primary care physicians and other health care providers about the importance of engaging men in discussions about prostate health.**

Primary care physicians are the “gatekeepers” or first contact for most men when encountering the health care system. Physicians must be knowledgeable and confident in their use of validated screening tools and guidelines to assess men’s risk for and management of prostate cancer. Prescreening discussions are under-utilized for prostate cancer due to perceived controversy over their usefulness in reducing mortality.

A recent American Academy of Family Physicians (AAFP) Needs Assessment Survey indicates a statistically significant and meaningful difference between family physicians’ medical knowledge about prostate cancer and their skill level at managing patients with prostate cancer.<sup>11</sup> Physicians need continuing medical education with regard to appropriate PSA screening, educating patients on lifestyle modifications, and having shared decision-making conversations with patients about the risks and benefits of PSA screening and results of screening.

<sup>11</sup> New Ilic D, Neuberger Molly M, Djulbegovic M, Dahm P. Screening for prostate cancer. Cochrane Database of Systematic Reviews. 2013(1). <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD004720.pub3/abstract>

## **Actions**

- 4.1. Educate primary care physicians and physician extenders how to have conversations about men's health and prostate health.
- 4.2. Provide risk assessment tools to primary care physicians and physician extenders to help patients understand their risk factors.
- 4.3. Ensure adequate education to primary care physicians on proper digital rectal exam technique.
- 4.4. Engage professional organizations in educational efforts regarding treatment of prostate cancer, active surveillance of low risk prostate cancer patient where appropriate, and treatment outcomes.

### **Performance Measures**

- ◆ Number of risk assessment tools disseminated to physicians and physician extenders
- ◆ Number of educational sessions for physicians and physician extenders about prostate health.

## **Implementation & Resources**

Once more, the SLT and a future men's health or prostate health work group will be able to reach out to health professional organizations, such as AUA, Am Academy of Family Physicians, (nurse practitioners), about the above topics.

## **Recommendations for Public Health Policy**

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Public health policy in regards to prostate cancer refers to the laws, actions of the government, funding priorities and regulations that guide how prostate cancer should be addressed.

Pennsylvania has several elements of a broad cancer policy in its Comprehensive Cancer Control Program within the Department of Health, its Cancer Control Plan, the Pennsylvania Cancer Control, Prevention and Research Advisory Board (the CAB), and the cancer coalition, known as the Stakeholder Leadership Team. This existing foundation enables the development of additional policy elements relevant to the needs of specific cancer types. Regarding prostate cancer, these needs include acknowledging males who are at a higher risk for prostate cancer are not well-presented in the existing infrastructure, that current insurance mandates do not address the full range of services needed to treat the disease and its impacts on a man's quality of life, and that funding is needed for research and educational programs about the disease.

The pursuit of additional policy elements to address these needs begins with advocacy—an organized effort to educate leaders about the nature and scope of a specific or general issue in order for them to make informed decisions—progresses with the implementation of initiatives involving all sectors and stakeholders and ends with more positive outcomes for men across Pennsylvania.

The policy recommendations in this section have been carefully considered by the PCTF. The five recommendations are primarily those that can be most greatly impacted through action by the legislative and executive branches of state government.

### **Recommendations for Public Health Policy**

1. Expand prostate cancer awareness through a comprehensive advocacy strategy.
2. Require insurance coverage for consultations, screening, and diagnosis of prostate cancer.
3. Require insurance coverage for prostate cancer survivors with post-treatment conditions.
4. Support a statewide infrastructure for cancer survivorship oversight.
5. Secure public funding for Pennsylvania prostate cancer initiatives.

## **Policy 1.**

### **Expand prostate cancer awareness through a comprehensive advocacy strategy.**

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A champion or champions is needed to raise awareness of prostate cancer and its effects in Pennsylvania.

The first step would be to educate the Pennsylvania Cancer Caucus about this report and seek their engagement in moving recommendations into initiatives.

Provide peer-to-peer awareness.

And develop an action plan for statewide and grassroots efforts.

### **Actions**

- 1.1. Educate the legislature, including the Pennsylvania Cancer Caucus, on the importance of prostate health, and seek champions.
- 1.2. Convene a statewide meeting to raise awareness, share best practices, and identify champions of prostate health and share best practices.
- 1.3. Develop grassroots advocates for men's health among community groups.
- 1.4. Strengthen partnerships with national advocacy organizations to promote men's health in Pennsylvania.

### **Performance Measures**

- ◆ Number of legislative champions for prostate health
- ◆ Implementation of a statewide forum

### **Implementation & Resources**

All sectors have a role in developing and strengthening advocacy. The role of identifying advocates and champions through targeted outreach and education belongs in the private sector. The role of convening stakeholders to discuss progress in addressing prostate cancer needs lies with the public sector.

## **Policy 2.**

### **Require insurance coverage for consultations, screening, and diagnosis of prostate cancer.**

Federal and state insurance mandates are a fundamental part of public health policy. Each is briefly noted below in relation to prostate cancer coverage.

**The Affordable Care Act**, as of the writing of this report, mandates coverage for essential health benefits in 10 categories, including preventive and wellness services and chronic disease management. The essential health benefits provide a baseline of coverage for preventive and wellness services for all plans offered in a given state.

For private plans, the ACA mandates coverage for recommended services. These recommended services include screenings and counseling services for adults that have a rating of "A" or "B" in the current recommendations of the United States Preventive Services Task Force (USPSTF). However, the ACA does not require coverage of screenings that are reviewed and not recommended by the USPSTF, such as the prostate-specific antigen (PSA) blood testing, which received a "D" score. (The USPSTF does not address the digital rectal exam.) Private plans can offer non-recommended services, such as PSA blood testing, at their discretion with or without a cost-share.

For individual and small group plans in the health insurance marketplaces, each state selects a benchmark to define its minimum level of service coverage in each of the 10 statutory benefit categories; health insurance providers may also offer plans with expanded coverage. The 2017 essential health benefit benchmark for Pennsylvania covers the PSA test.

**Medicare** provides coverage of an annual preventive prostate cancer screening PSA test and DRE once every 12 months for all male beneficiaries age 50 and older. There is no co-insurance and no Part B deductible for the PSA test. For other services, the beneficiary would pay 20% of the Medicare-approved amount after the yearly Part B deductible.

**Medicaid** as administered in Pennsylvania provides little or no coverage of prostate cancer screening services, since the disease predominantly affects older men generally covered by Medicare.

NCCN, ACS, and AUA guidelines call for men to have a consultation with their primary care physician to discuss risk factors for prostate cancer. While the guidelines recommend consultation, these consultations are not covered by insurance and create financial barriers to men taking the first step in prostate health.

Insurance coverage for prostate cancer screening services varies with patient insurance policies.

PSA blood testing is covered only when the test is considered a diagnostic service. Testing done in the preventive realm is not covered, even for high risk patients.

Screening for early detection of prostate cancer should be covered in accordance with NCCN, ACS, and AUA guidelines (see Screening section). Advanced diagnostics tools are available and should be covered by insurance to refine diagnosis and treatment of the patient. Insurers need to stay abreast of advancing technologies and cover them in insurance plans. Diagnostic testing is a crucial tool for active surveillance, surgical and radiotherapy treatments.

## **Actions**

- 2.1. Conduct a study to determine coverage and consistency of payment by insurance companies.
- 2.2. Expand insurance coverage for consultation.
- 2.3. Expand insurance coverage for screening.
- 2.4. Expand insurance coverage for diagnostic testing, including multi-parametric MRI, 4K score testing, and other new screening modalities for those individuals with rising PSA and prostate cancer diagnosis.

### **Performance Measures**

- ◆ Expanded insurance coverage for prostate health.

## **Implementation & Resources**

Federal and state government intervention is almost certainly needed. The Department of Insurance along with the Department of Health and representatives of insurance companies would be involved in evaluating new insurance mandates. State and local urological societies, professional medical associations, and cancer organizations as well as pharmaceutical and diagnostic companies all have a stake in expanded insurance coverage for screening and enhanced diagnostics.

## **Policy 3.**

### **Require insurance coverage for prostate cancer survivors with post-treatment conditions.**

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The post-surgical issues of impotence or incontinence may require rehabilitation, corrective surgery or reconstructive surgery, and long-term pharmaceutical interventions. These issues may be very expensive and not covered by insurance.

## **Actions**

- 3.1. Increase insurance coverage for pelvic floor rehabilitation programs.
- 3.2. Increase insurance coverage for pharmaceutical and surgical treatments to address quality of life conditions, such as impotence and incontinence, resulting from cancer treatment

### **Performance Measures**

- ◆ Increased insurance coverage for post-treatment prostate-related conditions.

## **Implementation & Resources**

The Department of Insurance along with the Department of Health and representatives of insurance companies would be involved in analyzing potential insurance mandates.

## **Policy 4.**

### **Support a statewide infrastructure for cancer survivorship oversight.**

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The Pennsylvania Comprehensive Cancer Control Program receives funding from the Centers for Disease Control and Prevention to develop an integrated and coordinated approach to reducing cancer incidence, morbidity, and mortality through prevention, early detection, treatment, rehabilitation, and palliation. This strategy aims to engage and build a coordinated public health response and provide a way to assess and then address the cancer burden within Pennsylvania, including prostate cancer.

The Pennsylvania Cancer Control, Prevention and Research Advisory Board (CAB), serves in an advisory capacity to the Secretary of Health for all cancer-related activity. The Stakeholder Leadership Team cancer coalition (SLT), a committee of the CAB, has workgroups of volunteer stakeholders dedicated to addressing the needs of high burden cancers in Pennsylvania.

While the SLT Cancer Coalition has the structure to bring together stakeholder organizations to address men's health, its membership should be expanded to include additional local and statewide prostate cancer advocates with expertise in reaching high-risk populations. As an alternative to membership expansion, the CAB could establish either a permanent or ad hoc prostate cancer sub group.

As an active member of the SLT, the Pennsylvania Prostate Cancer Coalition directs its efforts toward prostate cancer awareness, education and the advocacy of responsible screening. As a non-profit organization, the Coalition promotes men's health parity and empowerment through outreach and education, improves men's health literacy in high-risk populations, and serves as a source of prostate cancer information in Pennsylvania.

#### **Actions**

- 4.1. Develop a work group of the Stakeholder Leadership Team cancer coalition (SLT) to address prostate cancer and other prostate conditions.
- 4.2. Work with the Data Advisory Committee of the CAB to monitor prostate cancer incidence and mortality.
- 4.3. Implement the recommendations of the Pennsylvania Oncology Palliative Care Plan for prostate cancer patients.
- 4.4. Prepare a five-year report on how the needs of prostate patients and survivors are being addressed for the Pennsylvania Cancer Control, Prevention and Research Advisory Board (CAB) to the Secretary of Health and the State Legislature.

### **Performance Measures**

- ◆ Activities of the Stakeholder Leadership Team
- ◆ CAB report on how prostate cancer prevention, screening, diagnosis and treatment and survivorship needs are being addressed.

### **Implementation & Resources**

Pennsylvania Comprehensive Cancer Control Program and the SLT are the logical leaders for implementation of these actions. Representatives of the Black and other high risk populations would be valuable additions to the Stakeholder Leadership Team.

## **Policy 5.**

### **Secure public funding for Pennsylvania prostate cancer initiatives.**

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Prostate cancer services should receive state funding to address the needs of high risk men. Private funding should be sought as a way to leverage public funding and other resources. Leveraged funding provides a more sustainable stream than any one source alone, fosters collaboration among additional cancer stakeholders, and demonstrates an expanded constituency for prostate health.

### **Actions**

- 5.1. Provide funding support to the Pennsylvania Prostate Cancer Coalition for awareness and education.
- 5.2. Provide funding for a statewide database supporting performance measurement and quality improvement in prostate cancer care and outcomes.
- 5.3. Increase private contributions to prostate cancer awareness, including options such as a donation checkbox on the PA state tax return form.

### **Performance Measures**

- ◆ Creation of a statewide performance measurement and quality improvement database
- ◆ Increased funding support for the Pennsylvania Prostate Cancer Coalition

### **Implementation & Resources**

This recommendation can be advanced by both the public and private sectors. The state can encourage direct contributions to prostate cancer initiatives through convenient donation options. The Pennsylvania Prostate Cancer Coalition and others from the private sector can lobby publicly and vocally to rally legislative support for public funding.

# Implementation Strategies

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This report was developed by the Prostate Cancer Task Force and contains recommendations as prescribed in Act 66 of 2015. The report is not a “plan” in the traditional sense but a series of recommendations for consideration and implementation by policy makers and others.

Moving from recommendations to implementation or action requires additional consensus on the direction by policy-makers and their commitment of resources, i.e. legislation and programmatic funding support. In addition, commitment and resources must also be obtained from a wide range of interested organizations and stakeholders. This approach must involve the General Assembly, state agencies, the members of the Prostate Cancer Task Force and others. The involvement of the Pennsylvania Cancer Control, Prevention and Research Cancer Advisory Board (CAB) and its Stakeholder Leadership Team (SLT) cancer coalition will be pivotal to advancing recommendations of this report.

## General Implementation Concepts

The PCTF recognizes the challenge of implementation. The Task Force is committed to promoting the following implementation concepts with the overarching objective of advancing as many recommendations as possible.

1. **Organizational Framework**—Through the Comprehensive Cancer Control Program within the Pennsylvania Department of Health, the CAB and its SLT, there is an existing structure for advancing the recommendations and developing partnerships among interested parties. Moreover, the CAB and the SLT provide a valuable forum for continued consideration of these important recommendations and suggested actions.
2. **Leadership and Champions**—Working with the Pennsylvania Department of Health, prostate cancer advocates can identify additional leaders and champions to help advance the various report recommendations. Recognizing the resource limitations of any one organization, it will be important to draw upon the General Assembly, state agencies and many organizations to leverage resources for maximum impact.
3. **Report Awareness**—There is a need to raise awareness of the PCTF recommendations and actions to promote prostate health. Various communication approaches and platforms should be used, including LiveHealthyPA.com and communications vehicles of CAB and SLT members and other organizations advancing the cause of prostate health. Task Force members and others can be invaluable in advocating and networking.
4. **Leveraging Resources**—The PCTF acknowledges that implementation of the report’s recommendations and actions are dependent on the extent to which resources are leveraged. Resources include funding, staffing, time commitments, information sharing, and cooperation among state agencies.

5. **Promoting and Replicating Best Practices** — Prostate cancer information must be available to medical professionals and the general public. Replication of proven practices, as well as promotion of emerging practices, is a cost-effective way of achieving desired results. This entails a well-recognized platform for sharing systematic, evidence-based approaches. The LiveHealthyPA.com website with its collection of Healthy Living Practices has been developed to facilitate practice exchanges and replication.
6. **Progress Reporting**—There must be periodic progress reporting to gauge the extent to which the recommendations are being implemented. One forum for such progress reporting would be an annual update to the CAB and/or the legislative Cancer Caucus.
7. **Statewide Meeting**—With the objective of raising awareness of the report and expanding the network of partners, the PCTF recommends that a statewide event be held within one year of the report's release to focus on the report's implementation and to promote involvement among organizations to advance the recommendations. For this to occur, it would be necessary for one or more organizations to take the lead on sponsorship, coordination/organization, and funding.

# **Appendices**

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Appendix A: Act 66 of 2015

Appendix B: Glossary

Appendix C: Data

Appendix D: Reference Guidelines

# Appendix A: Act 66 of 2015

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12/13/2016 Act of Nov. 24, 2015, P.L. 238, No. 66 Cl. 35 - PROSTATE CANCER SURVEILLANCE, EDUCATION, DETECTION AND TREATMENT ACT - ENACT...

## **PROSTATE CANCER SURVEILLANCE, EDUCATION, DETECTION AND TREATMENT ACT - ENACTMENT**

**Act of Nov. 24, 2015, P.L. 238, No. 66**

**Cl. 35**

An Act

Establishing a task force on prostate cancer and related chronic prostate conditions; and providing for powers and duties of the task force, the Department of Health, the Insurance Department, the Department of Aging and the Department of Human Services, and for prevention and education strategies.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

**Section 1. Short title.**

This act shall be known and may be cited as the Prostate Cancer Surveillance, Education, Detection and Treatment Act.

**Section 2. Findings.**

The General Assembly finds that:

(1) Prostate cancer is the most common type of cancer diagnosed in men in this Commonwealth.

(2) African-American men are 61% more likely than Caucasian men to be diagnosed with prostate cancer and twice as likely to die from it.

(3) One in six men will be diagnosed with prostate cancer in their lifetime.

(4) In 2011, approximately 10,240 men were diagnosed with prostate cancer in Pennsylvania. In that same year, nearly 1,300 men died from prostate cancer.

(5) As of 2014, Pennsylvania does not provide or disseminate prostate cancer information as part of a public health campaign or message.

(6) Currently, a lack of consensus regarding prostate cancer screening guidelines creates an environment of confusion leading to inconsistent screening rates across the Commonwealth.

(7) When diagnosed at an early stage, prostate cancer survival rates are very high.

**Section 3. Legislative intent.**

It is the intent of the General Assembly:

(1) To provide the public with information and education to create greater public awareness of the prevalence of and measures available to detect, diagnose and treat prostate cancer and related chronic prostate conditions.

(2) To ensure that:

(i) Medical professionals, insurers, patients and governmental agencies are educated about risk factors and screening guidelines.

(ii) Medical professionals provide patients with sufficient information about treatment options to enable patients to make an informed choice as part of informed consent and to respect the autonomy of that choice.

(iii) Pennsylvania government agencies provide unbiased information regarding screening, diagnosis and treatment options.

(iv) Uniform screening guidelines are established for prostate cancer in Pennsylvania.

**Section 4. Definitions.**

The following words and phrases when used in this act shall have the meanings given to them in this section unless the context clearly indicates otherwise:

"Department." The Department of Health of the Commonwealth.

"Health care professional." A licensed physician, physician assistant, certified registered nurse practitioner or other licensed health care professional.

"Prostate cancer." Cancer that forms in the tissue of the prostate.

"Related chronic prostate condition." Conditions that include prostatitis, which is inflammation of the prostate, and an enlarged prostate. The term does not include prostate cancer.

"Secretary." The Secretary of Health of the Commonwealth.

"Task force." The task force established by this act.

Section 5. Task force.

(a) Establishment.--The department shall establish a task force on prostate cancer and related chronic prostate conditions.

(b) Purpose.--The task force shall investigate and make recommendations to the department regarding:

(1) The prevalence of and measures available to detect, diagnose and treat prostate cancer and related chronic prostate conditions in this Commonwealth.

(2) Raising awareness about the long-term effects caused by a lack of public policy and education about prostate cancer risk factors and screening guidelines.

(3) Development of a program of information and education regarding prostate cancer which shall include a uniform set of screening guidelines and the broad spectrum of scientific and treatment options regarding all stages of prostate cancer and related chronic prostate conditions.

(4) Development of a program to assist male residents in accessing prostate cancer screening, regardless of insurance coverage.

(5) Cooperation with the Insurance Department, the Department of Aging and the Department of Human Services to disseminate the information required under paragraph (3) to the general public.

(c) Composition.--The task force shall be composed of the following individuals:

(1) The secretary or a designee.

(2) The Secretary of the Commonwealth or a designee.

(3) The Insurance Commissioner or a designee.

(4) The Secretary of Aging or a designee.

(5) The Secretary of Human Services or a designee.

(6) Two physicians licensed in this Commonwealth who are knowledgeable concerning treatment of prostate cancer and related chronic prostate conditions and who are board certified in urology.

(7) Two physicians licensed in this Commonwealth who are knowledgeable concerning treatment of prostate cancer and related chronic prostate conditions and who are practicing radiation oncologists treating prostate cancer.

(8) An epidemiologist licensed in this Commonwealth who has expertise in prostate cancer.

(9) Two individuals who represent prostate cancer patient groups, either of whom may be a prostate cancer patient or a family member of a prostate cancer patient.

(10) One individual who is a prostate cancer patient or family member of a prostate cancer patient.

(11) Two registered nurses licensed in this Commonwealth, one of whom is a certified registered nurse practitioner and both of whom are knowledgeable concerning prostate cancer and related chronic prostate conditions.

(d) Meetings.--

(1) Within 45 days of the effective date of this section, the secretary shall appoint the members and a chairperson of the task force.

(2) The task force shall convene within 90 days of the effective date of this section and shall meet at least

quarterly. When necessary, some task force members may participate in meetings via teleconference.

(3) The task force shall issue a report with recommendations to the secretary within one year of its first meeting. The report shall be transmitted to the Public Health and Welfare Committee of the Senate and the Health Committee of the House of Representatives.

(4) Nothing in this act shall be construed to prohibit the task force from making interim reports or taking interim actions.

(e) Compensation and expenses.--The members of the task force shall receive no compensation for their services but shall be allowed their actual and necessary expenses incurred in performance of their duties. Reimbursement shall be provided by the department.

(f) Duties of department.--The department shall:

(1) Develop a program of information and education regarding prostate cancer which shall include a uniform set of screening guidelines and the broad spectrum of scientific and treatment options regarding all stages of prostate cancer and related chronic prostate conditions.

(2) Develop a program to assist male residents in accessing prostate cancer screening, regardless of insurance coverage.

(3) Cooperate with the Insurance Department, the Department of Aging and the Department of Human Services to disseminate the information required under paragraph (1) to medical professionals and the general public.

(4) Cooperate with professional associations of health care professionals to provide the education program for professionals required under paragraph (1).

(5) Identify and apply for public and private grants and funding in order to carry out the provisions of this act.

Section 6. Expiration.

This act shall expire June 30, 2019.

Section 7. Effective date.

This act shall take effect immediately.

## Appendix B: Glossary

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**Act 66 of 2015**, known as the Prostate Cancer Surveillance, Education Detection and Treatment Act, established a task force on prostate cancer and related chronic prostate conditions; and provided for powers and duties of the task force, the Department of Health, the Insurance Department, the Department of Aging and the Department of Human Services, and for prevention and education strategies. See Appendix A for the complete act.

**Active Surveillance (AS)**, also known as watchful waiting, is the monitoring of disease progression without interventions such as radiation or other therapies.

**Age-adjusted rating** is a statistical method to make fairer comparisons between groups with different age distributions. It equalizes the average of the age-specific rates, where the weights are the proportions of persons in the corresponding age groups of a standard population. For example, a county having a higher percentage of elderly people may have a higher rate of death or hospitalization than a county with a younger population, merely because the elderly are more likely to die or be hospitalized. (The same distortion can happen when comparing races, genders, or time periods.) Age adjustment can make the different groups more comparable.

**American Urologic Association (AUA)** is a urologic association, providing support to the urologic community and promoting the highest standards of urological clinical care through education, research and the formulation of health care policy.

**Benign prostatic hyperplasia (BPH)** is an enlarged prostate, unrelated to prostate cancer, that impacts the urethra and the bladder and may reduce the ability of the bladder to empty completely. BPH does not cause nor lead to cancer, but can occur in men with prostate cancer.

**Cancer Control and Research Advisory Board (Cancer Advisory Board or CAB)** is an eleven member, legislatively mandated board to advise the Secretary of Health about cancer control, prevention and research. CAB members are appointed to four-year terms by the Governor and approved by the Pennsylvania Senate. The CAB is required to create a plan for cancer control activities and to recommend to the Secretary the awarding of grants and contracts to establish or conduct programs in cancer control or prevention, cancer education and training, and clinical research. The CAB meets quarterly and the meetings are open to the public.

**Cancer Burden** is a measure of population health that aims to quantify the gap between the ideal of living to old age in good health, and the current situation where healthy life is shortened by illness, injury, disability and premature death caused by cancer.

**Cancer Incidence** is defined as the number of new cases in a defined population over a specific time period.

**Cancer Prevalence** represents the disease burden in a population at a specific time and is related to survival of individuals diagnosed with cancer.

**Commission on Cancer (CoC)** is a consortium of professional organizations dedicated to improving survival and quality of life for cancer patients through standard-setting, prevention, research, education, and the monitoring of comprehensive quality care. The Commission on Cancer and its standards for cancer care originated with the American College of Surgeons (ACoS).

**Clinical-Community** Linkages are partnerships among health care providers, community organizations, and public health agencies that help to improve patients' access to preventive and chronic care services.

**Data Advisory Committee (DAC)** is a committee of the CAB comprised of members of the 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 mission of the DAC is to use cancer surveillance data to identify the targeted populations and communities where cancer interventions should be focused and evaluate the impact such interventions.

**Enterprise Data Dissemination Informatics Exchange** or **EDDIE** is an online interactive health statistics database. The EDDIE system was developed to empower public health professionals to use data and statistics to drive public health policy and program decisions.

**Evidence-based Practices or Findings** are the integration of clinical expertise, patient values, and the best research evidence into the decision making process for patient care. Clinical expertise refers to the clinician's cumulated experience, education and clinical skills. **The Guide to Community Preventive Services (The Community Guide)** is a collection of evidence-based findings to help select interventions to improve health and prevent disease in communities, community organizations, businesses, healthcare organizations, or schools.

**Federally Qualified Health Centers** are community-based organizations that provide comprehensive primary care and preventive care, including health, oral, and mental health/substance abuse services. They provide necessary care to medically underserved and vulnerable populations, including the uninsured and those living in poverty. They are primarily funded by the Health Resources and Services Administration (HRSA) under Section 330 of the Public Health Service (PHS).

**Gleason Score** is a rating system to identify the aggressiveness of prostate cancer. Gleason scores range from 2 to 10, but a score of 5 or lower is rare, while 6 is the most common. In men with newly diagnosed prostate cancer, a Gleason score of less than 6 indicates a less aggressive cancer , while a score greater than 7 indicates a more aggressive cancer.

**HealthyPeople 2020** provides science-based, 10-year national objectives for improving the health of all Americans. For 3 decades, Healthy People has established benchmarks and monitored progress. Healthy People 2020 strives to:

- Identify nationwide health improvement priorities.
- Increase public awareness and understanding of the determinants of health, disease, and disability and the opportunities for progress.
- Provide measurable objectives and goals that are applicable at the national, State, and local levels.
- Engage multiple sectors to take actions to strengthen policies and improve practices that are driven by the best available evidence and knowledge.
- Identify critical research, evaluation, and data collection needs.

**Healthy Living Practices** is a continuum of interventions found on the Live Healthy PA.com website that range from “new” or emerging programs to those best practice where outcomes have been formally evaluated. Healthy Living Practices include a combination best, leading, promising, and emerging practices. This category was chosen due to its ability to include a continuum of practices that have made a healthy impact on the lives of Pennsylvanians without restricting submissions to those that meet a specific definition. Submissions should demonstrate a positive health outcome and be able to be replicated by others in a way that will not increase risk to its participants.

**LiveHealthyPA** is an online hub where communities, schools, organizations, and business can connect to access information and share ideas about preventing disease and injury. It is designed to promote initiatives aimed at improving health across Pennsylvania in the fight to eradicate chronic disease, prevent injury, and raise awareness about improving health.

**Michigan Urological Surgery Improvement Collaborative** (MUSIC) is a physician-led quality improvement collaborative comprised of a consortium of urology practices in the state of Michigan. The collaborative is designed to evaluate and improve the quality and cost efficiency of prostate cancer care for men in Michigan.

Multi-parametric MRI, also known as mpMRI, is a modern imaging method to aid in determining the location of hard to find lesions in the prostate.

**The National Comprehensive Cancer Network® (NCCN®)** is a not-for-profit alliance of 27 of the world’s leading cancer centers devoted to patient care, research, and education, is dedicated to improving the quality, effectiveness, and efficiency of cancer care so that patients can live better lives. It develops practice guidelines to help in making informed treatment decisions.

**National Cancer Institute (NCI)**, the federal government’s principal agency for cancer research and training, is part of the National Institutes of Health (NIH), which is one of 11 agencies that comprise the Department of Health and Human Services (HHS). The NCI coordinates the National Cancer Program, which conducts and supports research, training, health information dissemination, and other programs with respect to the cause, diagnosis, prevention, and treatment of cancer, rehabilitation from cancer, and the continuing care of cancer patients and the families of cancer patients.

**Patient-Centered Medical Home (PCMH)** is a team-based health care delivery model led by a physician. The model provides comprehensive and continuous medical care to patients with the goal of obtaining maximized health outcomes. The Medical Home model has been in existence for more than 40 years and was originally focused on the primary care physician as the coordinator of patients’ medical care. The purposes of a Medical Home include improved access to health care, improved patient experience, improved medical outcomes, efficient delivery of care and reduced costs. The Oncology Medical Home model is led by the oncologist and engages both primary and specialty care.

**Pennsylvania Cancer Registry (PCR)** 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. It is responsible for the collection 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.

**Pennsylvania Comprehensive Cancer Control Program** is a program of initiatives that address the cancer burden by recommending and evaluating cancer control efforts in areas from prevention, detection, treatment, through survivorship, as well as making sure these efforts are targeted to those populations at highest risk or with greatest need. The program is administered by the Pennsylvania Department of Health's Division of Cancer Prevention and Control (DCPC), which receives funding from the Centers for Disease Control and Prevention.

**Primary Care Physician (PCP)** is a physician who provides both the first contact for a person with an undiagnosed health concern as well as continuing care of varied medical conditions.

**Pennsylvania Prostate Cancer Coalition**, a charitable organization, works to extend and improve the quality of life for men through prostate cancer awareness, education and the advocacy of responsible screening.

**Pennsylvania Urologic Regional Collaborative (PURC)** is a multi-year data-sharing and improvement collaborative aimed at advancing the quality of care for men with prostate cancer.

**Prostate Health Index or PHI test** is a mathematical formula that combines three kinds of prostate specific antigen (PSA)(total PSA, free PSA and [-2] proPSA) to predict overall and high-grade prostate cancer on biopsy and the likelihood of progression during active surveillance (non-treatment with monitoring).

**Prostate specific antigen or PSA Level** is the level of prostate specific antigen (PSA) in a blood sample. A PSA level of 4 ng/mL (nanograms per milliliter) or greater is generally accepted to be high and raises the concern for possible cancer. If you have been diagnosed with prostate cancer, a PSA level less than 10 ng/mL is considered to indicate a lower risk of cancer progression, a level of 10-20 ng/mL an intermediate risk, and a level greater than 20 ng/mL a higher risk.

**Public Health 3.0** is a major upgrade in public health practice to emphasize cross-sectoral policy, and systems-level actions that directly affect the social determinants of health and advance health equity. It represents a challenge to business leaders, community leaders, state lawmakers, and Federal policymakers to incorporate health into all areas of governance. The Public Health 3.0 initiative is led by the U.S. Department of Health and Human Services (HHS) Office of the Assistant Secretary for Health (OASH) and builds on the work of Healthy People 2020, which encourages collaborations across communities and sectors.

**SEER** Summary staging is the most basic way of categorizing how far a cancer has spread from its point of origin. SEER stands for Surveillance, Epidemiology, and End Results, a program of the National Cancer Institute.

**Stakeholder Leadership Team cancer coalition (SLT)** is Pennsylvania's statewide comprehensive cancer control coalition. The SLT is a committee of the Cancer Advisory Board created to develop, implement and evaluate cancer control initiatives from the Pennsylvania Cancer Control Plan. It is comprised of 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; all working together in a collaborative approach to reduce the incidence and mortality of cancer in Pennsylvania.

**Tumor-Node-Metastasis or TNM** score is a composite rating. The T score rates the size and extent of the primary tumor. The N score indicates if the cancer has spread to nearby lymph nodes. The M score indicates whether or not the cancer has spread to distant sites in the body.

**Tumor Staging** is a measure referring to the size of the tumor and whether the cancer has spread.

Stage 1 / In Situ: Cancer is located in the prostate only. Usually detected by an elevated PSA blood test

Stage 2 / Local: Tumor is larger than Stage 1 and detectable by a digital rectal exam but still confined to the prostate.

Stage 3 / Regional: Cancer has spread beyond the prostate but remains in the pelvic area.

Stage 4 / Distant: Cancer has spread outside the prostate and pelvic area to locations such as the lymph nodes, bladder, rectum and bones.

Invasive cancers refers to the combination of local, regional, distant and unknown stage cancers. It excludes in situ prostate cancers which are extremely rare.

**United States Preventive Service Task Force (USPSTF)** is an independent, volunteer panel of national experts in preventive medicine and primary care that works to improve the health of all Americans by making evidence-based recommendations about clinical preventive services such as screenings, counseling services, and preventive medications. Each recommendation receives a letter grade (A, B, C, or D) or an I statement (indicating insufficient evidence to assess the balance of benefits and harms of the service.) based on the strength of the evidence and the balance of benefits and harms of a preventive service. The recommendations apply only to people who have no signs or symptoms of the specific disease or condition under evaluation, and the recommendations address only services offered in the primary care setting or services referred by a primary care clinician.

## **Appendix C: Data**

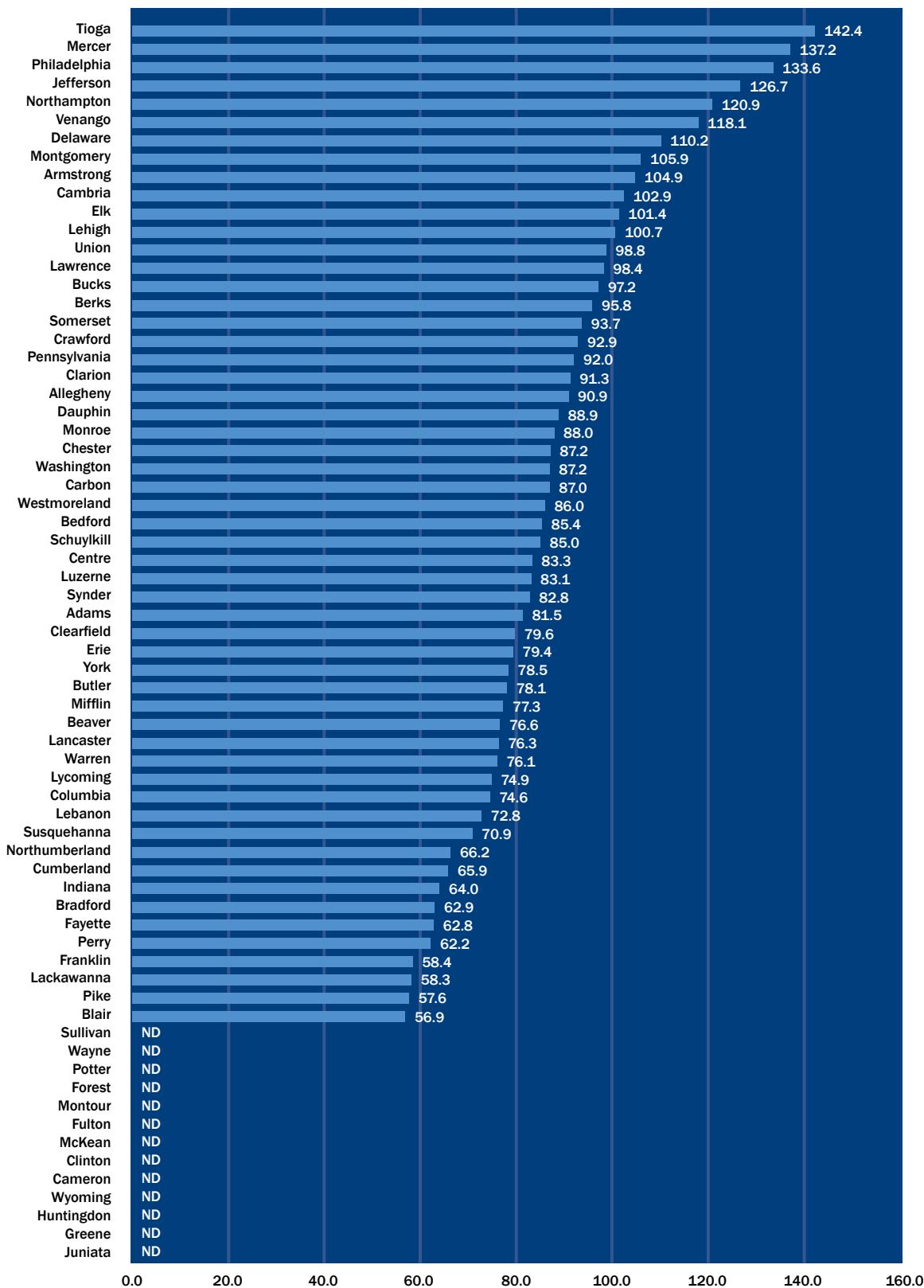
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Figure C-1: Age-Adjusted Incidence Rates of Invasive Prostate Cancer by County, Pennsylvania Residents, 2014 diagnoses

Figure C-2: Number and Age-adjusted Rate of Invasive Prostate Cancers among Pennsylvania Males, 2014 diagnoses

Figure C-3: Number and Percent of Prostate Cancers among Pennsylvania Males by Race and SEER Summary Stage, 2014 diagnoses

**Figure C-1 - Age-Adjusted Incidence Rates of Invasive Prostate Cancer by County.  
Pennsylvania Residents, 2014 diagnoses.**



**Figure C-2 - Number and Age-adjusted Rate of Invasive Prostate Cancers among Pennsylvania Males, 2014 diagnoses.**

County	Count	Age-adjusted Rate	County	Count	Age-adjusted Rate
Pennsylvania	7,407	92.0			
Adams	60	81.5			
Allegheny	701	90.9	Lackawanna	85	58.3
Armstrong	52	104.9	Lancaster	247	76.3
Beaver	92	76.6	Lawrence	63	98.4
Bedford	31	85.4	Lebanon	64	72.8
Berks	236	95.8	Lehigh	215	100.7
Blair	50	56.9	Luzerne	183	83.1
Bradford	29	62.9	Lycoming	58	74.9
Bucks	411	97.2	McKean	13	ND
Butler	96	78.1	Mercer	113	137.2
Cambria	101	102.4	Mifflin	26	77.3
Cameron	9	ND	Monroe	94	88.0
Carbon	44	87.0	Montgomery	527	105.9
Centre	66	83.3	Montour	15	ND
Chester	270	87.2	Northampton	224	120.9
Clarion	22	91.3	Northumberland	45	66.2
Clearfield	46	79.6	Perry	22	62.2
Clinton	14	ND	Philadelphia	968	133.6
Columbia	29	74.5	Pike	25	57.6
Crawford	59	92.9	Potter	14	ND
Cumberland	101	65.9	Schuylkill	92	85.0
Dauphin	146	88.9	Snyder	22	82.8
Delaware	353	110.2	Somerset	55	93.7
Elk	24	101.4	Sullivan	9	ND
Erie	140	79.4	Susquehanna	25	70.9
Fayette	64	62.8	Tioga	45	142.4
Forest	2	ND	Union	27	98.8
Franklin	61	58.4	Venango	48	118.1
Fulton	8	ND	Warren	26	76.1
Greene	17	ND	Washington	126	87.1
Huntingdon	18	ND	Wayne	18	ND
Indiana	38	64.0	Westmoreland	235	86.0
Jefferson	42	126.7	Wyoming	18	ND

Notes: Age-adjusted rates are expressed as ND (Not Displayed) for counts < 20 due to unreliability of such calculations based on small numbers. Age-adjusted rates are per 100,000 using the 2000 U.S. standard million population.

Invasive cancers include unknown stage, but exclude in situ cases.

**Figure C-3 - Number and Percent of Prostate Cancers among Pennsylvania Males by Race and SEER Summary Stage, 2014 diagnoses.**

		In Site		Local		Regional		Distant		Invasive
County	Race	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
Pennsylvania	All Races	2	ND	5492	74.1	985	13.3	579	7.8	7407
Pennsylvania	White	2	ND	4468	73.9	833	13.8	496	8.2	6041
Pennsylvania	Black	0	ND	709	73.1	130	13.4	76	7.8	970
Pennsylvania	Asian	0	ND	50	79.4	9	ND	2	ND	63
Pennsylvania	Hispanic	0	ND	91	68.9	20	15.2	14	10.6	132
Adams	All Races	0	ND	43	71.7	7	ND	5	ND	60
Adams	White	0	ND	41	70.7	7	ND	5	ND	58
Adams	Black	0	ND	0	ND	0	ND	0	ND	0
Adams	Asian	0	ND	1	ND	0	ND	0	ND	1
Adams	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Allegheny	All Races	0	ND	500	71.3	109	15.5	69	9.8	701
Allegheny	White	0	ND	424	71.6	88	14.9	61	10.3	592
Allegheny	Black	0	ND	65	69.1	20	21.3	6	ND	94
Allegheny	Asian	0	ND	4	ND	0	ND	0	ND	4
Allegheny	Hispanic	0	ND	2	ND	2	ND	0	ND	4
Armstrong	All Races	0	ND	43	82.7	2	ND	4	ND	52
Armstrong	White	0	ND	41	82.0	2	ND	4	ND	50
Armstrong	Black	0	ND	0	ND	0	ND	0	ND	0
Armstrong	Asian	0	ND	0	ND	0	ND	0	ND	0
Armstrong	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Beaver	All Races	0	ND	68	73.9	17	18.5	4	ND	92
Beaver	White	0	ND	60	74.1	17	21.0	2	ND	81
Beaver	Black	0	ND	6	ND	0	ND	2	ND	9
Beaver	Asian	0	ND	0	ND	0	ND	0	ND	0
Beaver	Hispanic	0	ND	0	ND	1	ND	0	ND	1
Bedford	All Races	0	ND	27	87.1	1	ND	3	ND	31
Bedford	White	0	ND	26	86.7	1	ND	3	ND	30
Bedford	Black	0	ND	0	ND	0	ND	0	ND	0
Bedford	Asian	0	ND	0	ND	0	ND	0	ND	0
Bedford	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Berks	All Races	0	ND	167	70.8	42	17.8	18	7.6	236
Berks	White	0	ND	140	69.3	38	18.8	17	8.4	202
Berks	Black	0	ND	17	73.9	4	ND	1	ND	23
Berks	Asian	0	ND	0	ND	0	ND	0	ND	1
Berks	Hispanic	0	ND	5	ND	5	ND	1	ND	11

		In Site		Local		Regional		Distant		Invasive
County	Race	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
Blair	All Races	0	ND	33	66.0	8	ND	8	ND	50
	White	0	ND	32	68.1	7	ND	7	ND	47
	Black	0	ND	0	ND	0	ND	0	ND	0
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Bradford	All Races	0	ND	25	86.2	2	ND	1	ND	29
	White	0	ND	25	86.2	2	ND	1	ND	29
	Black	0	ND	0	ND	0	ND	0	ND	0
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Bucks	All Races	0	ND	318	77.4	47	11.4	29	7.1	411
	White	0	ND	265	75.9	44	12.6	29	8.3	349
	Black	0	ND	15	83.3	1	ND	0	ND	18
	Asian	0	ND	3	ND	1	ND	0	ND	4
	Hispanic	0	ND	7	ND	0	ND	0	ND	7
Butler	All Races	0	ND	76	79.2	8	ND	9	ND	96
	White	0	ND	76	80.0	8	ND	9	ND	95
	Black	0	ND	0	ND	0	ND	0	ND	1
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	1
Cambria	All Races	0	ND	82	81.2	8	ND	8	ND	101
	White	0	ND	78	83.0	7	ND	7	ND	94
	Black	0	ND	3	ND	1	ND	1	ND	5
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Cameron	All Races	0	ND	8	ND	1	ND	0	ND	9
	White	0	ND	8	ND	1	ND	0	ND	9
	Black	0	ND	0	ND	0	ND	0	ND	0
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Carbon	All Races	0	ND	28	63.6	10	22.7	2	ND	44
	White	0	ND	25	62.5	10	25.0	1	ND	40
	Black	0	ND	0	ND	0	ND	1	ND	1
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Centre	All Races	0	ND	50	75.8	6	ND	6	ND	66
	White	0	ND	46	75.4	6	ND	5	ND	61
	Black	0	ND	3	ND	0	ND	0	ND	3
	Asian	0	ND	0	ND	0	ND	1	ND	1
	Hispanic	0	ND	1	ND	0	ND	0	ND	1

		In Site		Local		Regional		Distant		Invasive
County	Race	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
Chester	All Races	0	ND	202	74.8	36	13.3	21	7.8	270
	White	0	ND	173	73.9	36	15.4	18	7.7	234
	Black	0	ND	22	84.6	0	ND	3	ND	26
	Asian	0	ND	1	ND	0	ND	0	ND	2
	Hispanic	0	ND	1	ND	1	ND	0	ND	2
Clarion	All Races	0	ND	16	72.7	3	ND	2	ND	22
	White	0	ND	15	78.9	2	ND	2	ND	19
	Black	0	ND	1	ND	0	ND	0	ND	1
	Asian	0	ND	0	ND	1	ND	0	ND	1
	Hispanic	0	ND	2	ND	0	ND	0	ND	2
Clearfield	All Races	0	ND	34	73.9	6	ND	4	ND	46
	White	0	ND	33	75.0	5	ND	4	ND	44
	Black	0	ND	1	ND	1	ND	0	ND	2
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Clinton	All Races	0	ND	11	78.6	2	ND	1	ND	14
	White	0	ND	11	78.6	2	ND	1	ND	14
	Black	0	ND	0	ND	0	ND	0	ND	0
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Columbia	All Races	0	ND	27	93.1	1	ND	1	ND	29
	White	0	ND	26	92.9	1	ND	1	ND	28
	Black	0	ND	1	ND	0	ND	0	ND	1
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Crawford	All Races	0	ND	45	76.3	5	ND	3	ND	59
	White	0	ND	43	78.2	4	ND	3	ND	55
	Black	0	ND	1	ND	1	ND	0	ND	2
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	1
Cumberland	All Races	0	ND	74	73.3	11	10.9	7	ND	101
	White	0	ND	72	73.5	11	11.2	7	ND	98
	Black	0	ND	0	ND	0	ND	0	ND	0
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Dauphin	All Races	0	ND	105	71.9	17	11.6	10	6.8	146
	White	0	ND	78	69.6	16	14.3	9	ND	112
	Black	0	ND	23	76.7	1	ND	1	ND	30
	Asian	0	ND	2	ND	0	ND	0	ND	2
	Hispanic	0	ND	1	ND	0	ND	1	ND	2

		In Site		Local		Regional		Distant		Invasive
County	Race	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
Delaware	All Races	0	ND	264	74.8	54	15.3	22	6.2	353
Delaware	White	0	ND	199	76.2	41	15.7	14	5.4	261
Delaware	Black	0	ND	52	69.3	12	16.0	8	ND	75
Delaware	Asian	0	ND	4	ND	1	ND	0	ND	5
Delaware	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Elk	All Races	0	ND	16	66.7	3	ND	2	ND	24
Elk	White	0	ND	16	66.7	3	ND	2	ND	24
Elk	Black	0	ND	0	ND	0	ND	0	ND	0
Elk	Asian	0	ND	0	ND	0	ND	0	ND	0
Elk	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Erie	All Races	0	ND	108	77.1	19	13.6	10	7.1	140
Erie	White	0	ND	100	77.5	17	13.2	9	ND	129
Erie	Black	0	ND	8	ND	2	ND	1	ND	11
Erie	Asian	0	ND	0	ND	0	ND	0	ND	0
Erie	Hispanic	0	ND	2	ND	0	ND	0	ND	2
Fayette	All Races	0	ND	46	71.9	7	ND	5	ND	64
Fayette	White	0	ND	43	74.1	7	ND	4	ND	58
Fayette	Black	0	ND	3	ND	0	ND	1	ND	5
Fayette	Asian	0	ND	0	ND	0	ND	0	ND	0
Fayette	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Forest	All Races	0	ND	2	ND	0	ND	0	ND	2
Forest	White	0	ND	2	ND	0	ND	0	ND	2
Forest	Black	0	ND	0	ND	0	ND	0	ND	0
Forest	Asian	0	ND	0	ND	0	ND	0	ND	0
Forest	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Franklin	All Races	0	ND	41	67.2	8	ND	7	ND	61
Franklin	White	0	ND	39	67.2	7	ND	7	ND	58
Franklin	Black	0	ND	2	ND	1	ND	0	ND	3
Franklin	Asian	0	ND	0	ND	0	ND	0	ND	0
Franklin	Hispanic	0	ND	1	ND	0	ND	0	ND	1
Fulton	All Races	0	ND	6	ND	1	ND	0	ND	8
Fulton	White	0	ND	6	ND	1	ND	0	ND	8
Fulton	Black	0	ND	0	ND	0	ND	0	ND	0
Fulton	Asian	0	ND	0	ND	0	ND	0	ND	0
Fulton	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Greene	All Races	0	ND	12	70.6	1	ND	1	ND	17
Greene	White	0	ND	11	68.8	1	ND	1	ND	16
Greene	Black	0	ND	1	ND	0	ND	0	ND	1
Greene	Asian	0	ND	0	ND	0	ND	0	ND	0
Greene	Hispanic	0	ND	0	ND	0	ND	0	ND	0

		In Site		Local		Regional		Distant		Invasive
County	Race	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
Huntingdon	All Races	0	ND	15	83.3	0	ND	1	ND	18
Huntingdon	White	0	ND	13	81.3	0	ND	1	ND	16
Huntingdon	Black	0	ND	2	ND	0	ND	0	ND	2
Huntingdon	Asian	0	ND	0	ND	0	ND	0	ND	0
Huntingdon	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Indiana	All Races	0	ND	23	60.5	11	28.9	1	ND	38
Indiana	White	0	ND	22	64.7	11	32.4	1	ND	34
Indiana	Black	0	ND	0	ND	0	ND	0	ND	0
Indiana	Asian	0	ND	0	ND	0	ND	0	ND	0
Indiana	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Jefferson	All Races	0	ND	28	66.7	10	23.8	3	ND	42
Jefferson	White	0	ND	26	65.0	10	25.0	3	ND	40
Jefferson	Black	0	ND	0	ND	0	ND	0	ND	0
Jefferson	Asian	0	ND	0	ND	0	ND	0	ND	0
Jefferson	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Juniata	All Races	0	ND	5	ND	2	ND	0	ND	9
Juniata	White	0	ND	5	ND	2	ND	0	ND	9
Juniata	Black	0	ND	0	ND	0	ND	0	ND	0
Juniata	Asian	0	ND	0	ND	0	ND	0	ND	0
Juniata	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Lackawanna	All Races	0	ND	57	67.1	12	14.1	10	11.8	85
Lackawanna	White	0	ND	57	67.9	12	14.3	10	11.9	84
Lackawanna	Black	0	ND	0	ND	0	ND	0	ND	0
Lackawanna	Asian	0	ND	0	ND	0	ND	0	ND	0
Lackawanna	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Lancaster	All Races	0	ND	171	69.2	35	14.2	23	9.3	247
Lancaster	White	0	ND	161	70.3	33	14.4	21	9.2	229
Lancaster	Black	0	ND	4	ND	0	ND	1	ND	6
Lancaster	Asian	0	ND	0	ND	0	ND	1	ND	1
Lancaster	Hispanic	0	ND	4	ND	1	ND	2	ND	9
Lawrence	All Races	1	ND	49	76.6	8	ND	4	ND	63
Lawrence	White	1	ND	45	76.3	8	ND	3	ND	58
Lawrence	Black	0	ND	3	ND	0	ND	1	ND	4
Lawrence	Asian	0	ND	0	ND	0	ND	0	ND	0
Lawrence	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Lebanon	All Races	0	ND	46	71.9	11	17.2	4	ND	64
Lebanon	White	0	ND	45	72.6	10	16.1	4	ND	62
Lebanon	Black	0	ND	0	ND	1	ND	0	ND	1
Lebanon	Asian	0	ND	0	ND	0	ND	0	ND	0
Lebanon	Hispanic	0	ND	0	ND	0	ND	0	ND	0

		In Site		Local		Regional		Distant		Invasive
County	Race	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
Lehigh	All Races	0	ND	160	74.4	29	13.5	21	9.8	215
	White	0	ND	126	70.4	28	15.6	20	11.2	179
	Black	0	ND	9	ND	0	ND	0	ND	9
	Asian	0	ND	2	ND	1	ND	0	ND	3
	Hispanic	0	ND	12	63.2	2	ND	5	ND	19
Luzerne	All Races	0	ND	131	71.6	27	14.8	11	6.0	183
	White	0	ND	118	71.5	26	15.8	10	6.1	165
	Black	0	ND	4	ND	1	ND	1	ND	8
	Asian	0	ND	2	ND	0	ND	0	ND	2
	Hispanic	0	ND	7	ND	0	ND	1	ND	8
Lycoming	All Races	0	ND	41	70.7	9	ND	6	ND	58
	White	0	ND	40	70.2	9	ND	6	ND	57
	Black	0	ND	1	ND	0	ND	0	ND	1
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
McKean	All Races	0	ND	12	92.3	1	ND	0	ND	13
	White	0	ND	12	92.3	1	ND	0	ND	13
	Black	0	ND	0	ND	0	ND	0	ND	0
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Mercer	All Races	0	ND	97	85.8	7	ND	7	ND	113
	White	0	ND	84	84.8	7	ND	6	ND	99
	Black	0	ND	10	90.9	0	ND	1	ND	11
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Mifflin	All Races	0	ND	18	69.2	4	ND	4	ND	26
	White	0	ND	17	68.0	4	ND	4	ND	25
	Black	0	ND	1	ND	0	ND	0	ND	1
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Monroe	All Races	0	ND	76	80.9	8	ND	5	ND	94
	White	0	ND	62	79.5	7	ND	5	ND	78
	Black	0	ND	12	85.7	1	ND	0	ND	14
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	2	ND	0	ND	0	ND	2
Montgomery	All Races	0	ND	390	74.0	69	13.1	39	7.4	527
	White	0	ND	316	73.0	63	14.5	36	8.3	433
	Black	0	ND	40	75.5	4	ND	3	ND	53
	Asian	0	ND	8	ND	1	ND	0	ND	9
	Hispanic	0	ND	5	ND	0	ND	0	ND	6

		In Site		Local		Regional		Distant		Invasive
County	Race	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
Montour	All Races	0	ND	9	ND	5	ND	1	ND	15
Montour	White	0	ND	9	ND	5	ND	1	ND	15
Montour	Black	0	ND	0	ND	0	ND	0	ND	0
Montour	Asian	0	ND	0	ND	0	ND	0	ND	0
Montour	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Northampton	All Races	0	ND	167	74.6	37	16.5	14	6.3	224
Northampton	White	0	ND	153	73.6	35	16.8	14	6.7	208
Northampton	Black	0	ND	4	ND	2	ND	0	ND	6
Northampton	Asian	0	ND	2	ND	0	ND	0	ND	2
Northampton	Hispanic	0	ND	5	ND	2	ND	1	ND	8
Northumberland	All Races	0	ND	37	82.2	3	ND	4	ND	45
Northumberland	White	0	ND	35	81.4	3	ND	4	ND	43
Northumberland	Black	0	ND	1	ND	0	ND	0	ND	1
Northumberland	Asian	0	ND	1	ND	0	ND	0	ND	1
Northumberland	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Perry	All Races	1	ND	15	65.2	3	ND	4	ND	22
Perry	White	1	ND	15	65.2	3	ND	4	ND	22
Perry	Black	0	ND	0	ND	0	ND	0	ND	0
Perry	Asian	0	ND	0	ND	0	ND	0	ND	0
Perry	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Philadelphia	All Races	0	ND	720	74.4	124	12.8	67	6.9	968
Philadelphia	White	0	ND	245	75.2	44	13.5	27	8.3	326
Philadelphia	Black	0	ND	368	72.3	74	14.5	40	7.9	509
Philadelphia	Asian	0	ND	18	90.0	2	ND	0	ND	20
Philadelphia	Hispanic	0	ND	29	76.3	6	ND	2	ND	38
Pike	All Races	0	ND	18	72.0	1	ND	2	ND	25
Pike	White	0	ND	15	71.4	1	ND	2	ND	21
Pike	Black	0	ND	1	ND	0	ND	0	ND	1
Pike	Asian	0	ND	0	ND	0	ND	0	ND	0
Pike	Hispanic	0	ND	1	ND	0	ND	0	ND	1
Potter	All Races	0	ND	12	85.7	1	ND	1	ND	14
Potter	White	0	ND	12	85.7	1	ND	1	ND	14
Potter	Black	0	ND	0	ND	0	ND	0	ND	0
Potter	Asian	0	ND	0	ND	0	ND	0	ND	0
Potter	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Schuylkill	All Races	0	ND	71	77.2	12	13.0	5	ND	92
Schuylkill	White	0	ND	66	76.7	12	14.0	4	ND	86
Schuylkill	Black	0	ND	3	ND	0	ND	1	ND	4
Schuylkill	Asian	0	ND	0	ND	0	ND	0	ND	0
Schuylkill	Hispanic	0	ND	0	ND	0	ND	0	ND	0

		In Site		Local		Regional		Distant		Invasive
County	Race	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
Snyder	All Races	0	ND	20	90.9	2	ND	0	ND	22
	White	0	ND	20	90.9	2	ND	0	ND	22
	Black	0	ND	0	ND	0	ND	0	ND	0
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Somerset	All Races	0	ND	46	83.6	3	ND	5	ND	55
	White	0	ND	45	83.3	3	ND	5	ND	54
	Black	0	ND	1	ND	0	ND	0	ND	1
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Sullivan	All Races	0	ND	7	ND	2	ND	0	ND	9
	White	0	ND	7	ND	2	ND	0	ND	9
	Black	0	ND	0	ND	0	ND	0	ND	0
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Susquehanna	All Races	0	ND	15	60.0	5	ND	3	ND	25
	White	0	ND	15	60.0	5	ND	3	ND	25
	Black	0	ND	0	ND	0	ND	0	ND	0
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Tioga	All Races	0	ND	39	86.7	5	ND	1	ND	45
	White	0	ND	38	86.4	5	ND	1	ND	44
	Black	0	ND	1	ND	0	ND	0	ND	1
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Union	All Races	0	ND	22	81.5	3	ND	2	ND	27
	White	0	ND	22	81.5	3	ND	2	ND	27
	Black	0	ND	0	ND	0	ND	0	ND	0
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Venango	All Races	0	ND	41	85.4	0	ND	5	ND	48
	White	0	ND	41	85.4	0	ND	5	ND	48
	Black	0	ND	0	ND	0	ND	0	ND	0
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Warren	All Races	0	ND	23	88.5	1	ND	1	ND	26
	White	0	ND	22	88.0	1	ND	1	ND	25
	Black	0	ND	0	ND	0	ND	0	ND	0
	Asian	0	ND	0	ND	0	ND	0	ND	0
	Hispanic	0	ND	1	ND	0	ND	0	ND	1

		In Site		Local		Regional		Distant		Invasive
County	Race	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count
Washington	All Races	0	ND	82	65.1	23	18.3	14	11.1	126
Washington	White	0	ND	79	64.8	23	18.9	13	10.7	122
Washington	Black	0	ND	3	ND	0	ND	1	ND	4
Washington	Asian	0	ND	0	ND	0	ND	0	ND	0
Washington	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Wayne	All Races	0	ND	10	55.6	4	ND	2	ND	18
Wayne	White	0	ND	10	58.8	3	ND	2	ND	17
Wayne	Black	0	ND	0	ND	0	ND	0	ND	0
Wayne	Asian	0	ND	0	ND	0	ND	0	ND	0
Wayne	Hispanic	0	ND	0	ND	0	ND	0	ND	0
Westmoreland	All Races	0	ND	154	65.5	43	18.3	31	13.2	235
Westmoreland	White	0	ND	142	65.1	39	17.9	31	14.2	218
Westmoreland	Black	0	ND	8	ND	1	ND	0	ND	9
Westmoreland	Asian	0	ND	1	ND	2	ND	0	ND	3
Westmoreland	Hispanic	0	ND	0	ND	0	ND	0	ND	1
Wyoming	All Races	0	ND	17	94.4	1	ND	0	ND	18
Wyoming	White	0	ND	15	93.8	1	ND	0	ND	16
Wyoming	Black	0	ND	1	ND	0	ND	0	ND	1
Wyoming	Asian	0	ND	0	ND	0	ND	0	ND	0
Wyoming	Hispanic	0	ND	0	ND	0	ND	0	ND	0
York	All Races	0	ND	171	78.1	22	10.0	16	7.3	219
York	White	0	ND	159	79.1	19	9.5	13	6.5	201
York	Black	0	ND	8	ND	2	ND	2	ND	12
York	Asian	0	ND	1	ND	0	ND	0	ND	1
York	Hispanic	0	ND	3	ND	0	ND	1	ND	4

Percentages will be expressed as 0 for counts < 10 due to unreliability of such calculations based on small numbers.

Populations for every race and county combination are not available unless it is a census year.

For more information please follow the following link: [www.statistics.health.pa.gov](http://www.statistics.health.pa.gov)

Please note "Hispanic" can be any race.

Invasive cancers include unknown stage but exclude in situ cases.

## **Appendix D: Reference Guidelines**

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[National Comprehensive Cancer Network guidelines](#) (You must register for a free account to view).

[American Urological Association Guideline](#)

[American Cancer Society recommendations for prostate cancer early detection](#)