

# Addressing the Burden of Cancer in New Jersey

## Comprehensive Cancer Control Plan

*Task Force on Cancer Prevention,  
Early Detection and Treatment in  
New Jersey*

Report to the Governor  
2013-2018



**Philip D. Murphy**  
Governor  
**Sheila Y. Oliver**  
Lt. Governor

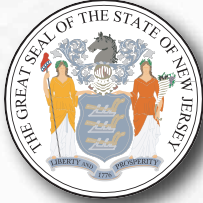


**Shereef M. Einahal, MD, MBA**  
Commissioner

# Addressing the Burden of Cancer in New Jersey



## Table of Contents



Commissioner's Message.....	iii
Task Force on Cancer Prevention, Early Detection and Treatment in New Jersey.....	iv
Acknowledgments.....	v
Mission Statement.....	vii
Executive Summary.....	viii
Addressing the Burden of Cancer in New Jersey.....	xii
Implementation.....	xxiv
Evaluation... ..	xxvi
<b>Chapter 1.</b> <b>Advocacy.....</b>	<b>1</b>
<b>Chapter 2.</b> <b>Nutrition and Physical Activity.....</b>	<b>5</b>
<b>Chapter 3.</b> <b>Palliation.....</b>	<b>9</b>
<b>Chapter 4.</b> <b>Breast Cancer.....</b>	<b>13</b>
<b>Chapter 5.</b> <b>Childhood Cancer.....</b>	<b>19</b>
<b>Chapter 6.</b> <b>Colorectal Cancer.....</b>	<b>25</b>
<b>Chapter 7.</b> <b>Gynecologic Cancer.....</b>	<b>31</b>
<b>Chapter 8.</b> <b>Lung Cancer.....</b>	<b>41</b>
<b>Chapter 9.</b> <b>Melanoma.....</b>	<b>49</b>
<b>Chapter 10.</b> <b>Oral and Oropharyngeal Cancer.....</b>	<b>57</b>
<b>Chapter 11.</b> <b>Prostate Cancer.....</b>	<b>63</b>
<b>Appendices</b>	
Appendix A. Index of Objectives by Topic Area.....	69
Appendix B. Participants.....	71
Appendix C. Bibliography.....	79







State of New Jersey  
DEPARTMENT OF HEALTH

PO BOX 360  
TRENTON, N.J. 08625-0360  
[www.nj.gov/health](http://www.nj.gov/health)

PHILIP D. MURPHY  
*Governor*

SHEILA Y. OLIVER  
*Lt. Governor*

SHEREEF M. ELNAHAL, MD, MBA  
*Commissioner*

Dear New Jersey Resident,

On behalf of the New Jersey Department of Health, I am pleased to present the 2013-2018 Comprehensive Cancer Control Plan. The Plan could not have been written without the dedication, expertise, and hard work of the many professionals who gave their time and talent to set priorities for cancer prevention and control. I would like to express my gratitude to the organizations, agencies, programs and individuals who worked together to develop the content, objectives, strategies and data measures presented in this Plan.

For many years, the New Jersey Cancer Plan and statewide partners have guided our success in reducing the burden of cancer for all New Jersey residents and improving the quality of life for cancer survivors. Our latest Plan continues to build upon previous work. Cancer is a complex disease and, therefore, cancer prevention efforts are multi-faceted. This Plan presents New Jersey's cancer burden in extensive detail.

The burden of cancer in New Jersey remains high. New Jersey has the fifth highest rate of cancer compared to other states, with an incidence rate of 493.32 per 100,000 from 2009-2013. In 2014, a total of 49,506 cases of invasive cancer diagnosed among New Jersey residents were reported to the New Jersey State Cancer Registry (NJSCR). Age-adjusted rates were 450.9 per 100,000 in women and 508.2 per 100,000 in men. Unlike cancer incidence, mortality rates are among the lowest in the U.S. New Jersey ranked 35th in the nation in 2013 for cancer mortality (163.8 per 100,000). A total of 82,861 cancer deaths occurred among New Jersey residents from 2009-2013 (50.4% among women and 49.6% among men). There is still more work to be done.

I implore you to review the Plan and seek your input in the implementation of this work. There are many opportunities to continue to move cancer prevention and control forward to create a healthier New Jersey. Thank you for your continued support and partnership.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Shereef M. Elnahal'.

Shereef M. Elnahal, MD, MBA  
Commissioner

**New Jersey Department of Health**

**Task Force on Cancer Prevention, Early  
Detection and Treatment in New Jersey**

**Arnold M. Baskies, MD, FACS (Chair)**

**Ansar Batool**

Providers of Cancer Treatment and Support Services

**Teri Cox, MBA**

Providers of Cancer Treatment and Support Services

**Marco Gottardis, PhD**

Pharma Companies Engaged in Cancer Research

**Linda Johnson**

Cancer Survivor

**Firoozeh Vali, PhD**

Community Based Orgs & Coalitions Engaged in Cancer Outreach,  
Ed, Screening

**James Robert Wong, MD**

Providers of Cancer Treatment and Support Services



## Acknowledgments

**T**

*he work of the Task Force on Cancer Prevention, Early Detection and Treatment in New Jersey is supported by the New Jersey Department of Health.*

*The Task Force has been recognized for its efforts and has been memorialized through the enactment of Public Law 2005, Chapter 280 as of January 6, 2006.*

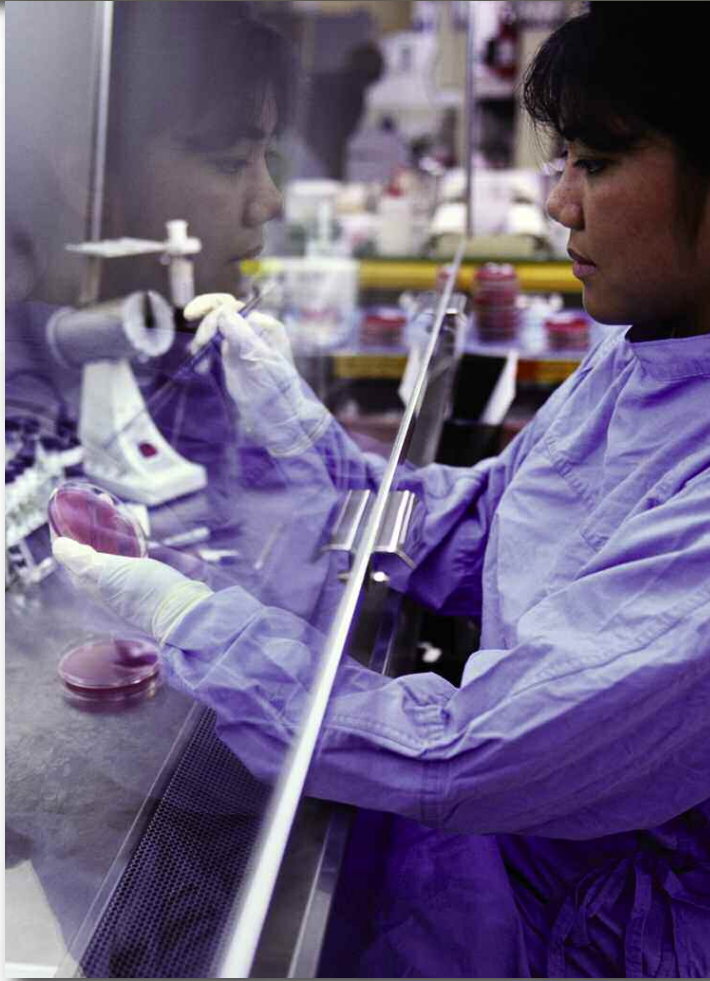
*The New Jersey Comprehensive Cancer Control Plan would not have been possible without the extraordinary generosity and vision of the many key stakeholders and consultants who have assisted in its development. The process that propelled development of this document has brought together individuals and organizations whose passion is reflected in the chapters of the Plan. We especially acknowledge the rich resources available within the Departmental programs that have provided invaluable assistance.*

*We also acknowledge various organizations that offered hospitality for the many Task Force Standing Committee and Workgroup sessions.*

*Cancer data used in this Plan were provided by the New Jersey State Cancer Registry, Cancer Epidemiology Services, New Jersey Department of Health, which is funded by the Surveillance, Epidemiology and End Results (SEER) Program of the National Cancer Institute under contract HHSN261201300021I, the National Program of Cancer Registries (NPCR), Centers for Disease Control and Prevention, under the grant 5U58DP003931-02, as well as the State of New Jersey and the Rutgers Cancer Institute of New Jersey.*

*In addition, we value the expertise and best practices of sister state agencies, especially Minnesota, New York and Texas.*

*This Plan is dedicated to those with cancer and their loved ones and acknowledges their courage. It salutes all those providing care and finding cures. And it memorializes all those who have gone. To all, thank you for making a difference and helping to tell New Jersey's story.*





### **Task Force on Cancer Prevention, Early Detection and Treatment in New Jersey Mission Statement**

*“ Comprehensive cancer control is a dynamic and ongoing process which can only be achieved through an active and committed partnership. This can be accomplished with public and private sectors working together from the belief that neither entity can do it alone. Our mission is to develop, recommend, advocate, and promote an integrated, collaborative, and multi-disciplinary approach to reducing the incidence, illness, and death from cancer. This will be addressed through a culturally sensitive plan which reflects prevention, early detection, treatment, rehabilitation, palliation, and quality of life issues and will embrace all of the residents of New Jersey. Coalition building, partnerships, and education are essential to achieving this mission.”*



## Executive Summary

T

he Task Force on Cancer Prevention, Early Detection and Treatment in New Jersey (the Task Force) is comprised of standing committees, workgroups and the Regional Chronic Disease Coalitions, a volunteer cadre of over 2,000 individuals and organizations, whose mission is to reduce the burden of cancer for New Jersey. Thus, the Governor's Task Force, established by Executive Order 114 and memorialized by Public Law 2005, Chapter 280, continues its charge of developing and implementing the New Jersey Comprehensive Cancer Control Plan (hereafter referred to as the Plan).

Utilizing guidelines developed by the Centers for Disease Control and Prevention (CDC),<sup>1,2</sup> the Task Force tells New Jersey's story of cancer incidence and mortality as a spur to reducing the burden of the disease among its residents. In 2003, supported through state appropriations, the Task Force conducted the first-ever statewide capacity and needs assessment in each of New Jersey's 21 counties, both to benchmark the current status of the cancer burden in each county and to develop an extensive inventory of the state's cancer-related activities and resources.

The Task Force and its work have been recognized nationally by the CDC for its local implementation model, and internationally by Canada as it began to develop its own nationwide cancer plan. Through its leadership, the Task Force continues its mission and applauds the successes of the Workgroups and Regional Chronic Disease Coalitions as demonstrated in each respective chapter.

### THE BLUEPRINT FOR 2013–2018

The Task Force began development of the third edition of the Plan utilizing best practices and the internal monitoring system developed by the Battelle Centers for Public Health Research and Evaluation in conjunction with Rutgers New Jersey Medical School and Rutgers School of Dental Medicine (formerly the University of Medicine and Dentistry of New Jersey). The Plan's evidence-based chapters are grounded in data provided by the New Jersey State Cancer Registry and trends gleaned from peer-reviewed publications. Legislative initiatives, clinical trials, and the application of current technologic research and data are integrated as recurrent themes throughout each chapter. Priority areas in this third edition of the Plan, developed by the Task Force and its workgroups and standing committees, are summarized below.

**Advocacy:** The primary focus of this standing committee is supporting the continuation of the State's infrastructure and funding for cancer awareness, education, and early detection programs. Committee members will continue to advocate for increased access to cancer care and reduce cancer-related health disparities among minorities and the medically underserved.

**Communications:** This standing committee will continue to focus on raising awareness and promoting utilization of cancer prevention, early detection, and treatment resources and strengthening partnerships.

**Nutrition and Physical Activity:** This workgroup's priority is to continue to promote lifelong healthy eating patterns, healthy weight, and physical activity by educating New

# Addressing the Burden of Cancer in New Jersey



Jersey residents through academic, worksite and community education.

**Palliation:** This workgroup plans to integrate the knowledge of palliative care services, beginning with the diagnosis of cancer, into professional and public health systems. Workgroup members will also be addressing the accessibility of palliative care services to cancer patients and others with chronic diseases, as well as the benefits and risks of complementary and alternative medicine in palliative care.

**Breast:** The key activities of this workgroup continue to be awareness and education for those at higher than expected risk of developing breast cancer. This workgroup will be focusing on improving public understanding of breast health, breast cancer, and screening to promote the value of early detection.

**Childhood:** The overall focus of this workgroup is enhancing the quality of life of the child, adolescent, and/or young adult cancer patient from diagnosis through treatment to survivorship across the life span. Workgroup members will also be advocating on issues especially related to long-term survivorship and continuing medical care into adulthood.

**Colorectal:** Raising awareness of colorectal cancer with respect to effective measures available for prevention, detection, and treatment remain a focus of this workgroup. Workgroup members will also address measures to increase colorectal cancer screening rates among New Jersey residents.

**Gynecologic:** The main focus of this workgroup is to increase public, patient, and

professional awareness and education regarding cervical and ovarian cancers. The workgroup will also be addressing utilization of the human papillomavirus (HPV) vaccine in indicated populations.

**Lung:** This workgroup's focus is to increase the proportion of providers who will implement the Public Health Service guidelines regarding tobacco-dependency treatment. Workgroup members will continue its tradition of support for the New Jersey Comprehensive Tobacco Control Program, develop strategies to enhance the detection of lung cancer at earlier stages, and heighten public awareness and knowledge of lung cancer and other smoking (or tobacco-related) cancers and chronic diseases, i.e., heart disease.

**Melanoma:** This workgroup's priority is to increase the practice of preventive behaviors among New Jersey's youth; promote worksite education to employers and employees; and educate the community on melanoma and other skin cancers. The workgroup will also address measures to decrease the exposure of New Jersey residents to ultraviolet radiation from the use of tanning beds and booths.

**Oral and Oropharyngeal:** This workgroup will continue its focus of heightening public awareness of oral and oropharyngeal cancers and the need for access to screening for all segments of the population.

**Prostate:** Promoting a public health message regarding screening; the benefits of early detection and risks of early detection; and the follow-up necessary for normal and abnormal screening and treatment continues to be the major focus of this workgroup. Workgroup members

will also continue to address increasing access to prostate cancer services for all New Jersey men through education, screening, treatment, and palliative care, as well as ensuring that the public and healthcare providers remain up-to-date on available prostate cancer technologies and resources.

## MOVING FORWARD

Implementation of the third New Jersey Comprehensive Cancer Control Plan (2013-2018) will require an invigorated campaign to address the issues facing New Jersey cancer patients and their families. Addressing survivorship and diversity, the Plan implementation will continue with support from the New Jersey Department of Health and the coordinated efforts of its relevant programs.

Implementation of the 2013-2018 Plan will also require continued intensive collaboration among the Task Force and its public and private partners. Partnerships can and should be optimized with a focus on mutual benefits and a coordinated approach to planning as a means to achieve the “higher good” of reducing cancer’s burden in New Jersey.

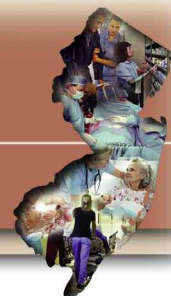
The cornerstone of implementation will be periodic updating of the statewide capacity and needs assessment, through which the most current and accurate information about the burden of cancer in New Jersey, cancer statistics/data, research, and resources are made available to the public via the website, <https://nj.gov/health/cs/public/resources/occp.shtml>. This information is invaluable to the Task Force, its standing committees, workgroups, and Regional Chronic Disease Coalitions as they prioritize

implementation based on the most current evidence. The New Jersey State Cancer Registry plays a pivotal role as a data resource able to document the differential cancer burden in various geographic locations and segments of the population, thus guiding delivery of effective and appropriate interventions to those in greatest need.

No discussion of Plan implementation would be complete without addressing the critical importance of funding. The State of New Jersey has clearly demonstrated its support through annual appropriations, and with New Jersey’s recognition as a comprehensive cancer control state, cooperative agreements and grant monies have been awarded by the Centers for Disease Control and Prevention (CDC). Foundations and not-for-profit organizations also provide financial and in-kind support for this organization of organizations. Yet, as the CDC points out in its *Guidance for Comprehensive Cancer Control Planning*, the ongoing activity of mobilizing support extends beyond merely securing funding. It requires a broad campaign that increases visibility, develops political will, and enhances awareness of community leaders, who become advocates for both funding and implementing portions of the Plan. This has been the vision of the Task Force since its inception and will continue to inspire the actions of its members as they engage current and new partners in comprehensive cancer control, not for their expertise alone, but because they are key decision-makers who can advocate for and deliver on commitments to Plan implementation.

Further, an enhanced emphasis on communication through the Task Force’s Communications Standing Committee can improve the dialogue among collaborators. Impact will be measured under the guidance of the Evaluation Committee,

## Addressing the Burden of Cancer in New Jersey



with an emphasis on implementation activities that include an annual evaluation plan and a status report assessing progress by the Task Force.

The value of the New Jersey Comprehensive Cancer Control Plan lies in its blueprint to improved integration and coordination of cancer

control activities among relevant New Jersey agencies, organizations, and individual stakeholders. This collaborative effort will reduce duplication; enhance delivery of programs at the state and community levels; and serve to foster synergy among the stakeholders to the ultimate benefit of all New Jersey residents. Together we can make a difference.

**Addressing the Burden of Cancer in New Jersey**

**CANCER FACTS IN  
NEW JERSEY<sup>1,2,3</sup>**

Cancer is the second leading cause of death in New Jersey after heart disease. In 2013, there were approximately 429,693 people (199,433 men, 230,260 women) living with cancer in New Jersey<sup>3</sup>. An estimated 54,437 New Jersey residents were diagnosed with cancer in 2014 and 16,483 died from cancer that year.<sup>5</sup>

Lung cancer alone accounts for approximately 25% of cancer deaths in New Jersey. Lung, colorectal, prostate, and pancreatic cancers are the leading causes of death for New Jersey men. Lung, breast, colorectal and pancreatic cancers are the leading causes of cancer deaths for New Jersey women.

Table 1 shows the 10 leading types of cancer among men and women in New Jersey in 2013.

**Table 1**

Leading New Cancer Cases (Incidence) in New Jersey, 2013 <sup>*3</sup>					
Men			Women		
Site	Cases	% of Total	Site	Cases	% of Total
Prostate	6,079	25.04%	Breast	7,479	29.10%
Lung and Bronchus	2,878	11.85%	Lung and Bronchus	3,082	11.99%
Colon and Rectum	2,177	8.97%	Colon and Rectum	2,166	8.43%
Urinary Bladder	1,779	7.33%	Corpus Uteri <sup>^</sup>	1,875	7.30%
Melanoma of the Skin	1,309	5.39%	Thyroid	1,435	5.58%
Non-Hodgkin Lymphoma	1,143	4.71%	Non-Hodgkin Lymphoma	1,000	3.89%
Kidney and Renal Pelvis	1,060	4.37%	Melanoma of the Skin	950	3.70%
Leukemia	836	3.44%	Pancreas	725	2.82%
Oral Pharyngeal	781	3.22%	Ovary	640	2.49%
Pancreas	751	3.09%	Urinary Bladder	619	2.41%

<sup>\*</sup>At the time of this publication, 2013 data from the NJSCR was preliminary.

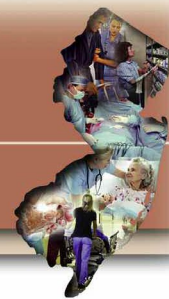
<sup>^</sup>Includes Uterus, NOS.

Source: New Jersey State Cancer Registry<sup>3</sup>

**LEADING NEW CANCER CASES  
AND DEATHS IN NEW JERSEY  
BY GENDER**

Nearly half of all new cancer cases are comprised of prostate, breast, lung and colorectal cancers. New Jersey men are most often diagnosed with prostate, lung/bronchus, colorectal and urinary

bladder cancers. New Jersey women are most often diagnosed with breast, lung/bronchus, colorectal, and corpus uteri cancers. Table 2 shows the 10 leading causes of cancer-related deaths among men and women in New Jersey in 2013.



**Table 2**

Leading Cancer Deaths (Mortality) in New Jersey, 2013* <sup>3</sup>					
Men			Women		
Site	Cases	% of Total	Site	Cases	% of Total
Lung and Bronchus	2,067	25.46%	Lung and Bronchus	1,939	23.65%
Colon and Rectum	773	9.52%	Breast	1,356	16.54%
Prostate	728	8.97%	Colon and Rectum	769	9.38%
Pancreas	615	7.58%	Pancreas	604	7.37%
Urinary Bladder	343	4.23%	Ovary	391	4.77%
Leukemia	342	4.21%	Corpus Uteri <sup>^</sup>	336	4.10%
Esophagus	301	3.71%	Leukemia	301	3.67%
Liver	300	3.70%	Non-Hodgkin Lymphoma	247	3.01%
Non-Hodgkin Lymphoma	297	3.66%	Brain and Other Nervous System	157	1.92%
Stomach	228	2.81%	Urinary Bladder	155	1.89%

\* At the time of this publication, 2013 data from the NJSCR was preliminary.

<sup>^</sup>Includes Uterus, NOS.

Source: New Jersey State Cancer Registry<sup>3</sup>

## CANCER-RELATED HEALTH DISPARITIES AND PRIORITY POPULATIONS

Differences in the rates of new cancer cases and deaths are not only affected by hereditary and environmental factors, but also by various demographic and socioeconomic factors, particularly among disparate and priority populations. State and county level analyses of the cancer burden can conceal local variations. The reasons for these local variations can be differences in prevalence of cancer risk factors, such as tobacco use; environmental exposures and population genetics; and demographic and socioeconomic factors within the state or county.

### Demographics Affect Cancer Rates

With approximately 9 million residents, New Jersey is the nation's most densely populated state comprised of urban, suburban and rural areas.<sup>6</sup>

Whites represent nearly 74% of New Jersey's population, blacks/African Americans (black) 15%, and Asians 9%. American Indian and Alaska Native, Native Hawaiian or Other Pacific Islanders represent 2% or less of the state's population.<sup>7</sup> Approximately 1.9 million of New Jersey residents are foreign-born residents.<sup>8</sup> Among foreign-born blacks, Asians and Hispanics, cancer is the leading cause of death.<sup>9</sup>

The state has a median household income of \$71,919, the second highest in the nation; however, 11.1% of the population lives in poverty, which is lower than 14.9% nationwide. New Jersey residents who are black, Hispanic, American Indian/Alaska Native, or Pacific Islanders have higher rates of poverty than white or Asian residents.<sup>10</sup>

People who have lower educational and income levels, have lower screening rates when compared to other levels and are more likely uninsured or underinsured. However, health insurance

coverage among currently uninsured or underinsured residents is likely to increase in the future with the implementation of the Affordable Care Act (ACA) and the expansion of Medicaid in New Jersey to cover more low-income, uninsured people.

## Cancer Among Older Adults in New Jersey

The probability of developing cancer increases with age. This is critical in New Jersey where the median age of the population is 39 years versus 37 nationwide,<sup>11</sup> and the number of people living beyond 85 years is increasing every year.<sup>12</sup> With the rising number and proportion of older adults with cancer in New Jersey over the coming decades, attention should be paid to interventions that will decrease the burden of cancer among adults aged 65 and older. There are many opportunities for research to understand the issues of early diagnosis, treatment, and support of older adults with cancer. It appears that chronological age by itself is less of a factor in determining patient outcomes than other related factors, such as functional status, co-morbidities, and overall health status. Because of the heterogeneity in health and economic status of our aging population, comprehensive assessments and individualized management may be of significant value in improving survival of and quality of life in older adults with cancer.<sup>13</sup>

## Cancer Rates by Race for New Jersey and the Nation

Age-adjusted incidence and mortality rates per 100,000 population for men and women by race in New Jersey and the United States (US) for all cancer sites (2009 to 2013) are presented in Table 3. A comparison of New Jersey rates with US rates is provided on page xv. The incidence rates for New Jersey Hispanic and Asian/Pacific Islander men and women were lower for all cancers combined (see Table 3). In New Jersey, black men, when compared to white men, have higher incidence rates for all cancers combined. The total cancer incidence rate for New Jersey white women is higher than the rate for black women.

New Jersey mortality rates were higher in men than women among all races (see Table 2). Mortality rates were also higher for black women than women of other races. Cancer mortality rates for both black men and women were higher than those of white men and women for all sites combined. Relative to the respective US rates, overall cancer mortality was lower for all New Jersey men and women. New Jersey Asian/Pacific Islanders had much lower mortality rates than those of the overall population. For further details on incidence and mortality visit the New Jersey Department of Health Cancer Epidemiology Services website at

<http://www.stat.nj.us/health/csr/ports.shtml>



**Table 3**

Age-Adjusted Rates per 100,000, in New Jersey and US for All Cancer Sites by Gender by Race/Ethnicity: 2009-2013 <sup>3,4</sup>									
Cases (Incidence)				Deaths (Mortality)					
Men		Women		Men		Women			
NJ	US	NJ	US	NJ	US	NJ	US	NJ	US
555.1	504.5	452.8	409.9	All Races	194.7	204.0	143.7	143.4	
561.8	508.2	469.8	422.5	White	197.5	202.9	146.6	143.6	
563.1	571.8	401.2	400.5	Black	234.1	254.2	158.9	163.8	
450.9	382.8	360.0	321.8	Hispanic	127.2	145.0	87.7	98.5	
283.9	317.3	266.8	296.7	Asian /Pacific Islander	94.0	125.6	70.7	89.6	

Source: New Jersey State Cancer Registry<sup>3</sup>; Surveillance, Epidemiology and End Results Program (SEER) Cancer Statistics<sup>4</sup>

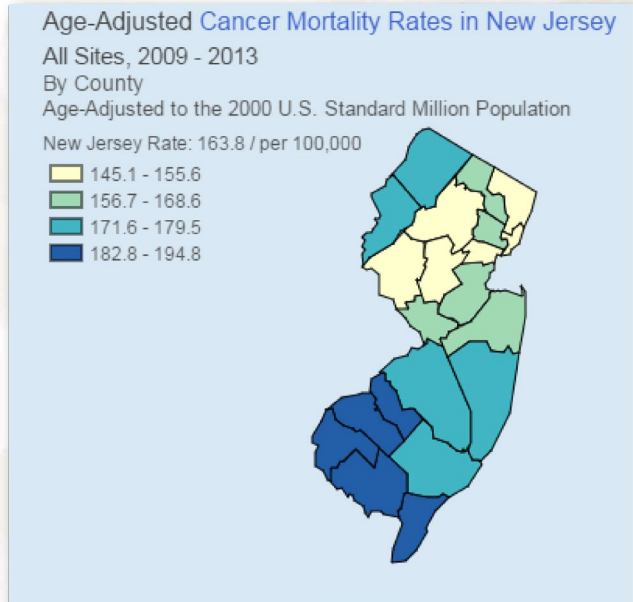
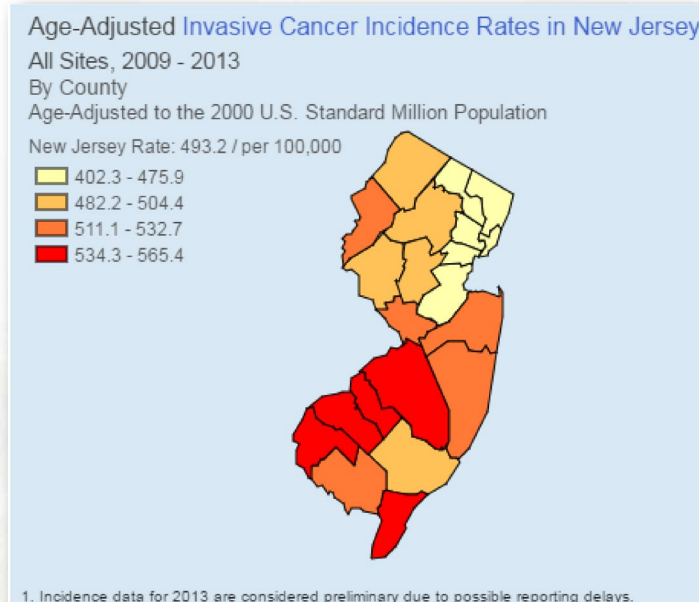
## Cancer Rates by Geographic Area

Cancer incidence and mortality rates vary by geographic area. Currently, most of the data used to inform comprehensive cancer control and prevention in New Jersey are presented at the national, state and county levels.<sup>15</sup> This provides consistent measures that enable comparisons to demonstrate disparities most likely due to variations in cancer risk factors. Differences in cancer incidence and mortality rates by county are seen in the maps provided in Figure 1.<sup>16,17</sup> The highest overall age-adjusted mortality rates tend to be found in the most southern counties.

It should be noted that in counties where there is a large heterogeneous population, local disparities within the county, e.g., higher than expected incidence or late-stage diagnoses, may not be identified by reviewing county-level data only.<sup>15, 18</sup> For example, the New Jersey Department of Health, Cancer Epidemiology Services recently identified three (3) distinct geographic areas in the state with significantly higher invasive cervical cancer rates – in the northeast (primarily Newark and Elizabeth), central (primarily Trenton) and southern (primarily Camden) area of New Jersey.<sup>15</sup>



**Figure 1**



Source: New Jersey State Cancer Registry

# Addressing the Burden of Cancer in New Jersey



## NEW JERSEY CANCER RATES COMPARED TO THE NATION, 2009-2013

Cancer has a major effect upon the lives of all affected, as well as their families. In the US, during 2010-2012, the lifetime risk of developing cancer was 39.65%.<sup>19</sup>

Cancer incidence rates for men and women are higher in New Jersey than in the US for most cancers. Incidence rates for New Jersey men and women, all cancers combined, are higher than the US rate except for Asian/Pacific Islander people. New Jersey colorectal cancer incidence rates for black men are lower than US rates. Incidence rates for New Jersey women that are lower than

national rates are: cervical cancer cases among white women; and breast cancer for black women.<sup>14</sup>

New Jersey cancer mortality rates for all men for all cancers combined, lung and prostate cancer are lower than US rates, but New Jersey rates for colorectal cancer for all men are higher than US rates for colorectal cancer. Mortality rates that are higher than US rates for New Jersey women for all cancers combined are: breast and colorectal cancer among all women; and colorectal cancer among white and black women. The New Jersey uterine cancer mortality rate is above the US rate and rising, while liver/bile cancer mortality rates are increasing for New Jersey men and women, similar to the US rate.<sup>20</sup>

**Table 4**

Death Rate per 100,000 population by Cancer Site All Races, Both Sexes, Trend Comparison New Jersey versus United States (death years through 2013) Trend Period 2009 - 2013								
Site	Priority Index (*)	Recent Trend(**)	NJ Death Rate Compared to US Rate	NJ Deaths per year over rate period	Annual NJ Death Rate over rate period	Rate Ratio (***) NJ to US	Recent Average Annual Percent Change (***) in Death Rates	
Uterus (Females)	1	rising ↑	above ↑	315	5.5	1.2	0.6	
Liver & Bile Duct (Females)	2	rising ↑	similar =	196	3.4	1.1	1.4	
Liver & Bile Duct (Males)	2	rising ↑	similar =	380	8.5	0.9	1.7	

(\*) Priority indices were created by ordering from rates that are rising and above the comparison rate to rates that are falling and below the comparison rate.  
 (\*\*) Recent trend in death rates is Average Annual Percent Change (AAPC) based on the APCs calculated by Joinpoint Regression Program. Due to data availability issues  
 (\*\*\*) Rate ratio is the NJ rate divided by the US rate.

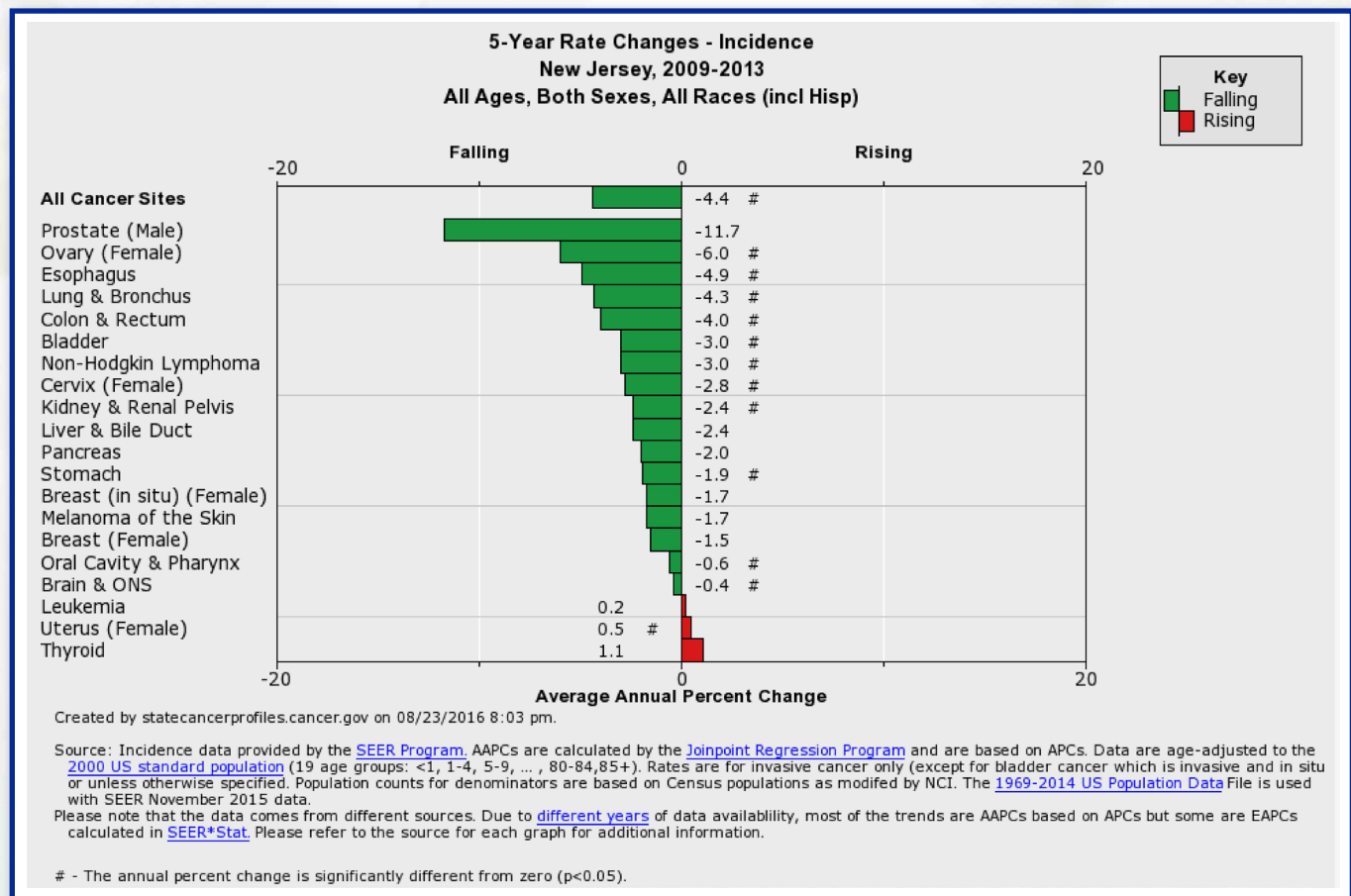
Source: Death data provided by the National Vital Statistics System public use data file. Death rates calculated by the National Cancer Institute using SEER\*Stat. Death rates are age-adjusted to the 2000 US standard population (19 age groups: <1, 1-4, 5-9, ... , 80-84, 85+). The Healthy People 2020 goals are based on rates adjusted using different methods but the differences should be minimal. Population counts for denominators are based on Census populations as modified by NCI. The 1969-2014 US Population Data File is used with mortality data.

## TRENDS IN RATES

Five-year incidence and mortality rate changes in New Jersey for 2009 to 2013 are shown in Figures 2 and 3 below. Consistent with the nation, most cancer rates in New Jersey declined. Cancer sites with incidence rates that fell significantly include ovary, esophagus, lung/bronchus, colon/rectum, bladder, non-

Hodgkin's lymphoma, cervix, kidney/renal pelvis, stomach, oral cavity/pharynx, and brain/ONS. Incidence rates increased significantly for uterine cancer. During the same time period, mortality rates increased significantly for uterine and liver/bile duct cancers, while mortality rates for all other sites decreased significantly except for ovary, thyroid, and pancreas which remained stable.

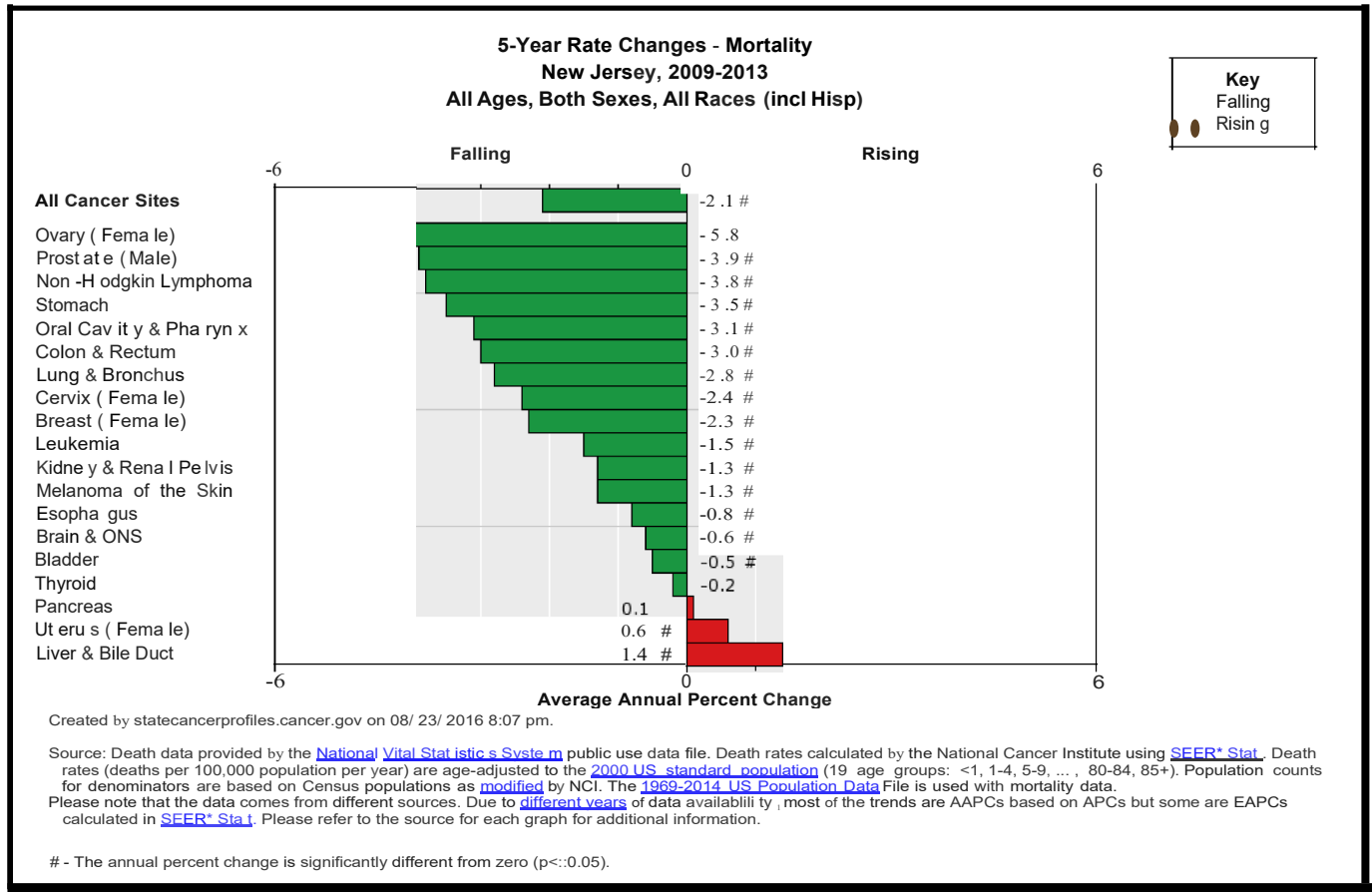
**Figure 2**



# Addressing the Burden of Cancer in New Jersey



**Figure 3**



**CANCER SURVIVAL**

Five-year relative survival rates for all cancer sites in the Plan significantly improved from 1982 to 2006. Approximately 429,693 people (199,433 men, 230,260 women) were living with

cancer in New Jersey during 2013.<sup>3</sup> Overall, survival rates are improving – the relative survival rate reached 66.9% among people diagnosed from 2002 to 2006, while the relative survival rate for patients diagnosed from 1982 to 1986 was only 48.6%.

**Table 5**

<b>Five-Year Relative Cancer Survival Rates for New Jersey First Primary Cancer Patients Diagnosed in 1982-2006<sup>3</sup></b>						
<b>Cancer Site</b>	<b>Years of Diagnosis</b>					<b>1982-2006</b>
	<b>1982-1986</b>	<b>1987-1991</b>	<b>1992-1996</b>	<b>1997-2001</b>	<b>2002-2006</b>	
All Sites	48.6%	53.9%	59.8%	64.2%	66.9%	59.3%
Breast	74.7%	81.4%	84.0%	87.2%	88.5%	83.6%
Cervix Uteri	61.6%	66.1%	67.4%	68.3%	68.1%	66.2%
Childhood Cancer	65.3%	74.1%	75.3%	79.1%	83.2%	76.1%
Colon and Rectum	52.8%	57.0%	59.2%	62.9%	64.9%	59.1%
Lung and Bronchus	11.5%	12.5%	13.8%	14.9%	18.0%	14.1%
Melanoma of the Skin	79.6%	80.8%	82.7%	89.7%	92.0%	86.3%
Oral Cavity and Pharynx	42.7%	46.2%	50.0%	55.1%	59.1%	50.5%
Ovary	37.1%	40.5%	42.7%	44.6%	45.5%	42.1%
Prostate	67.7%	81.0%	95.3%	99.7%	100.0%	93.2%

Source: New Jersey State Cancer Registry<sup>3</sup>



Nationally, there are an estimated 14.5 million cancer survivors as of January 1, 2014, but that figure is expected to increase to 18.9 million by 2024, according to the American Cancer Society.<sup>21</sup> The growing number of cancer survivors was attributed in part to earlier detection and improvements in cancer treatment, according to a report in the *CA: A Cancer Journal for Clinicians*.<sup>22</sup>

## **SURVIVORSHIP**

Many survivors and their families experience long-term physical, emotional, and practical needs resulting from cancer that affect their quality of life. Advances in treatment options and early detection have played roles in allowing those with cancer to lead full lives during and after treatment. The cancer “survivorship” concept includes the physical, emotional, and practical issues that arise during and after a cancer diagnosis.<sup>23</sup>

Some of the issues cancer survivors and their families face are related to health insurance. The Affordable Care Act addressed some of these issues by requiring most insurance plans cover

essential benefits, including cancer and other screenings, treatment and follow-up care. People cannot be excluded from coverage because they have a pre-existing diagnosis of cancer or other chronic diseases, or be dropped from a plan because they have cancer or other chronic diseases. Health plans can no longer charge sick people more for coverage than healthy people; dollar limits on care and benefits cannot be imposed; and the amount of money that people must pay for “out-of-pocket costs and deductibles” is limited. Cancer survivor rates are expected to increase if more people are diagnosed and treated at an earlier stage of cancer because evidence-based cancer screenings will be available to people at no cost.<sup>24</sup> Enrollment in the health insurance plans started in October 2013. A recent report from the Robert Wood Johnson Foundation, indicated that the proportion of non-elderly adults in New Jersey who report being uninsured decreased 38% from 21.2% in September 2013 to 13.2% in March of 2014.<sup>25</sup>

Strategies to improve survivorship have been incorporated throughout the Plan.

**Table 6**

## **Healthy NJ 2020 Target**

**Reduce the death rate due to all cancers: 161.5 per 100,00 population.**

**Increase the proportion of cancer survivors who are living 5 years or longer after diagnosis.**

## REDUCING THE CANCER BURDEN

The goal of cancer control and of this Plan is to reduce the burden of cancer for all New Jersey residents. Many types or forms of cancer can be prevented. It is critically important to provide New Jersey residents with the information they need to avoid behaviors that place people at risk for developing cancers. Other cancers can be detected early and treated, controlled, or cured. Data about these kinds of cancer and the potential to survive them once detected must be disseminated broadly. Access to high-quality cancer screenings and state-of-the-art treatment must be available. Finally, even for cancers for which a cure has not been found, there are certain life-prolonging, life-enhancing, and palliative care measures, including pain control, to which New Jersey's residents deserve access. These are the aims of this Plan and will, once achieved, reduce the burden of cancer in New Jersey.

Strategies addressing specific basic research are not addressed in the Plan. However, the respective chapters propose ways to enhance and increase support for these efforts. New Jersey is rich in resources for basic research through the biopharmaceutical industry, academic centers of excellence, and innovative research institutes. Through the efforts of these dedicated scientists in our state, new approaches and therapies are realized that pave the way to understanding how cells and organisms function normally and what goes wrong that leads to the development of cancer. The Task Force continues to support measures to increase participation in clinical trials.

## Emerging Trends

While most major cancers occur less frequently, cancers of some sites are on the rise throughout the US and require greater control efforts. According to the Cancer Trends Progress Report 2011/2012 Update, incidence rates of some cancers, including melanoma of the skin; cancer of the kidney and renal pelvis; thyroid; pancreas; and liver and intrahepatic bile duct cancers are rising with annual percentage increases of greater than 1%.<sup>26</sup> The report also advises that rising cancer incidence trends must be interpreted with caution, because they can reflect a "real" increase in cases, a temporary increase in cases associated with early detection, or a permanent increase in cases associated with finding cases that are histologically malignant, but biologically indolent. Among these cancers, New Jersey thyroid cancers are rising, with an annual change of greater than 1%.<sup>27</sup>

## Thyroid Cancer

According to data from the New Jersey State Cancer Registry, the age-adjusted thyroid cancer rate in females rose from about 7 cases per 100,000 to about 29 cases per 100,000 between 1990 and 2013. In males, the increase was smaller, from about 3 per 100,000 to about 10 per 100,000 in 2013.

Thyroid cancer incidence rates continued to increase for all men, especially among white men, each year from 2009 to 2013. Thyroid cancer age-adjusted rates for white men are more than three times the rates for black men. Thyroid cancer age-adjusted rates for white women are more than two and a half times the rates for black women.<sup>28</sup> Thyroid cancer is more common in women than men and occurs most frequently in individuals between the ages of 20 and 60.



Risk factors for thyroid cancer include exposure to high doses of ionizing radiation (such as might be received from therapeutic radiation treatment or exposure to radioactive fallout), a family history of thyroid cancer, goiter, certain precancerous polyps in the colon, such as familial polyposis, or other inherited medical conditions. For now, the reason behind the rising incidence of thyroid cancer is unclear. Although some researchers attribute the increase to improved detection and imaging, which allows for the diagnosis of subclinical thyroid cancers, others feel that there is an actual true increase in incidence that may be associated with environmental and lifestyle factors (such as the large increase in use of diagnostic radiation in the US since 1980, endogenous female hormones, the prevalence of obesity in the US, and changes in US iodine consumption), and other factors that have yet to be identified. There is no accepted screening test to diagnose the disease before symptoms occur, although the American Cancer Society recommends that all adults over the age of 20 should have their thyroid examined as part of a routine health examination.<sup>29</sup>

## Liver/Bile Duct Cancers

Primary liver cancers are any malignant tumors that arise in the liver itself, as opposed to having metastasized to the liver. The most common types are hepatocellular carcinoma (HCC) and cholangiocarcinoma, which arise from the liver cells and the bile ducts, respectively.

Incidence rates for liver/intrahepatic bile duct cancers increased among all New Jersey men during 2009-2013, with a small decline in 2010.<sup>30</sup> Cases are usually rapidly fatal and are among the leading causes of cancer death in New Jersey. Infection with either hepatitis B virus (HBV) or hepatitis C virus (HCV) are important risk factors for development of HCC.<sup>31,32,33</sup> Infection with HBV early in life appears to be a much stronger risk factor for HCC than acquisition of HBV in adulthood. Chronic infection with HBV has been associated with HCC even in the absence of detectable serum hepatitis B surface antigen. Use of a hepatitis B virus vaccine, which provides durable immunity in very young children, will likely prevent most cases of HCC.<sup>34</sup> Vaccination against HBV is currently recommended for all children in the US.<sup>35,36</sup>



## Implementation

In 2003, the Task Force conducted the first-ever statewide capacity and needs assessment (C/NA) encompassing all cancer-related activities and resources in each of New Jersey's 21 counties. The C/NA assisted the Task Force and its partners in mapping county-level resources and identifying critical target areas for cancer prevention and control activities. The C/NA also served as a mechanism for assessing gaps, a means to engage additional stakeholders, and a baseline against which to measure future progress.

The results of the C/NA continue to be updated and utilized by the Regional Chronic Disease Coalitions, which are charged with identifying priority cancers in each county and implementing the Plan at the community level by providing the evidence needed to identify priority cancers in each county. The information gathered in the C/NA will guide the Task Force, its standing committees, workgroups, and Coalitions in prioritizing evidence-based implementation activities, while also offering the most up-to-date and accurate information to the public via the website, <https://nj.gov/health/cancer/public/resources/occp.shtml>. The New Jersey State Cancer Registry's data further serves as a valuable aid in helping to improve the delivery of effective and appropriate interventions to targeted populations.

Identifying and attracting funding sources also is critical to successful cancer control implementation. Since 2003, the State of New Jersey has demonstrated continued support through annual appropriations. With New Jersey's recognition as a comprehensive cancer control state, cooperative agreements and grant funds have also been received from the CDC. In

addition, foundations and non-profit organizations have not only provided financial, but also in-kind support for this "organization of organizations" and its undertakings.

However, the ongoing process of mobilizing support involves more than merely securing funding. Rather, what is required is a broad campaign that provides visibility for the initiative, develops widespread commitment to institute positive change, and enhances awareness of community leaders who then become advocates for both funding and implementing portions of the Plan.

Since its inception, the Task Force has adopted a broad-based approach to garnering support for its mission. In the coming years, its members will continue to pursue this path as they engage current and new partners in comprehensive cancer control, not only for their considerable expertise, but also for their power as key decision-makers who can advocate persuasively for and deliver on commitments to Plan implementation.

Overall, implementation progress can only be accomplished with the continued emphasis on the following:

- Empowering the Task Force, its standing committees, workgroups, and coalitions to prioritize items in the Plan based on current evidence provided by the New Jersey State Cancer Registry and other reputable data sources.
- Investigation of additional resources necessary to update cancer-related activities in an ongoing capacity/needs assessment effort in New Jersey.
- Coordination and mobilization of key stakeholders that will be cultivated and

## Addressing the Burden of Cancer in New Jersey



- maintained by sharing programs, resources and best practices through such means as a newsletter, website, and/or annual conference.
- Based on the evaluation of implementation activities, provide for review and revision and initiate the next planning cycle.
- Coordination and communication will serve to foster synergy among the stakeholders and will ultimately benefit all the residents of New Jersey through enhanced cancer prevention and control.

## Evaluation

P

rogram evaluation is the gathering of information about a program's short-term and long-term outcomes to identify problems, support modifications, and determine if goals and objectives are met, and to build on successes.

The Office of Cancer Control and Prevention is responsible for developing and implementing an evaluation plan that will assess the 2013-2018 New Jersey Comprehensive Cancer Control Plan. The ultimate measure of the Cancer Plan's success will be the reduction of cancer mortality rates in New Jersey. Since long-term outcomes take years to achieve, short-term impacts will be assessed through progress on measurable objectives in the Cancer Plan.

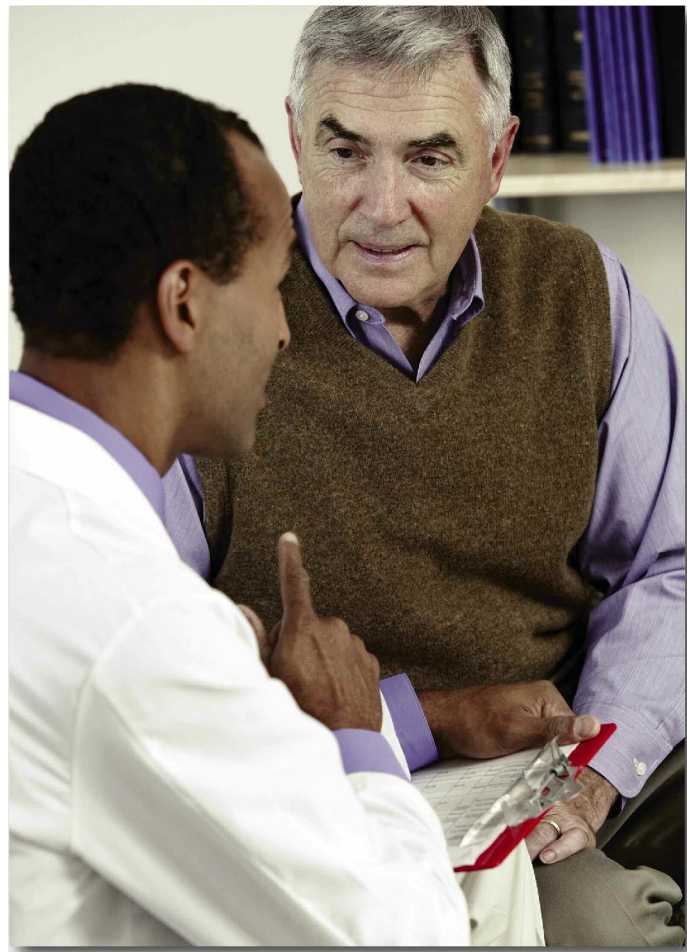
Quantitative data obtained from the New Jersey State Cancer Registry will measure improvements

in cancer incidence, stage of diagnosis, five-year survival and mortality rates. For progress on objectives related to screening and risk factors, other quantitative data sources will be used. All of the measurable objectives in the Cancer Plan will be followed in progress reports utilizing the most reliable data sources to assess cancer control progress, impacts, and outcomes in New Jersey.

While the Office of Cancer Control and Prevention is responsible for evaluating the Plan, stakeholders throughout New Jersey will be participating in monitoring the progress of the Plan and utilizing data from available sources to guide their cancer control activities. It is acknowledged that the Cancer Plan is a document that will evolve with time, new information, varying resources, and changing needs.



## **CHAPTER 1** Advocacy



# E

## CHAPTER 1. Advocacy

very day, decisions are made that impact the lives of current and future cancer patients, survivors, and their families.<sup>37</sup> To influence those decisions, the

*Comprehensive Cancer Control Plan for New Jersey* incorporates advocacy as a strategy to promote beneficial policies, laws, regulations and standards of care for those affected by cancer.

Additional advocacy work remains to be done by the Task Force and its workgroups, standing committees and Regional Chronic Disease Coalitions. Through the implementation of the 2008-2012 Plan, these groups were instrumental in efforts to sustain appropriations for the Office of Cancer Control and Prevention, the Comprehensive Tobacco Control Program, the

New Jersey Commission on Cancer Research, and the New Jersey Cancer Education and Early Detection Program.

Priorities in the cancer arena have and will continue to focus on advancing the Plan and ensuring that all residents have access to cancer education, screening, and quality cancer care. Specific advocacy goals, objectives, and strategies are also cited within each site-specific chapter of the Plan. However, the following goals, objectives, and strategies reflect the most urgent and comprehensive actions needed to implement and sustain this ambitious state plan by advocating for funding of and support for the Plan and increasing access to quality cancer care in an effort to reduce cancer-related health disparities.

### Overall Goal

*Promote public awareness of cancer prevention, early detection, and treatment in New Jersey.*

### GOAL AD-1

To advocate for support of the *New Jersey Comprehensive Cancer Control Plan*, including cancer awareness, education, and early detection programs, as well as access to care.

#### Objective AD-1.1

To identify, engage, and involve interested public and private organizations, institutions, and agencies to garner ongoing support of the Plan.

#### Strategy

##### AD-1.1.1

Build cancer advocacy capacity through recruitment of interested participants. Parties initially identified include, but are not limited to: survivors, media, insurers, pharmaceutical companies, healthcare professionals, corporations, and other key decision-makers.



### Objective AD-1.2

To educate residents about the importance of cancer prevention and control programs.

#### Strategy

##### AD-1.2.2

Work with partner organizations and coalitions to build and continue support for cancer education, early detection, and access to care.

### GOAL AD-2

To advocate for increased access to quality cancer care, prevention, early detection, and awareness programs.

#### Objective AD-2.1

To advocate for providing to all New Jersey residents, adequate health insurance coverage relating to cancer prevention and control.

#### Strategies

##### AD-2.1.1

Assess current New Jersey insurance coverage for cancer prevention, detection, and treatment.

##### AD-2.1.2

Identify gaps in cancer coverage.

#### Objective AD-2.2

To ensure that cancer patients have access to quality prevention and cancer care, including both current therapies and treatments provided through high-quality, peer-review clinical trials.

#### Strategies

##### AD-2.2.1

Educate decision-makers of identified cancer-related needs.

##### AD-2.2.2

Educate policy-makers about cancer-related issues, i.e., reimbursement.

### GOAL AD-3

To reduce cancer-related health disparities among racial and ethnic minority populations, seniors, and the medically underserved.

#### Objective AD-3.1

To increase awareness of a healthcare system that provides cancer services that address the psychosocial, economic, physical, and educational needs of the patient in a culturally sensitive and linguistically appropriate manner.

#### Strategies

##### AD-3.1.1

Advocate for quality improvement standards for cancer screening, diagnostic tests, treatment, rehabilitation, and palliation care services and therapies that would be available and cost-effective for all the medically underserved and seniors.

##### AD-3.1.2

Advocate for organized healthcare systems that reduce fragmentation of available cancer services.

##### AD-3.1.3

Advocate for funding toward increased numbers of knowledgeable and competent

## **CHAPTER 1. Advocacy**

navigators for cancer patients and their families to help access and navigate the healthcare system.

### **AD-3.1.4**

Collaborate with other interested stakeholders to integrate existing initiatives addressing health and health care disparities.



## **CHAPTER 2**

### **Nutrition and Physical Activity**





## CHAPTER 2. Nutrition and Physical Activity

Table 7

### Healthy NJ 2020 Target

- Prevent an increase in the proportion of the population that is obese to 23.8% of adults age 20 years and older, and 10.3% of high school students (grades 9-12).
- Increase the proportion of the population consuming five or more servings of fruits and vegetables per day to 28.7% of adults age 18 years and older, and 22.1% of high school students (grades 9-12).
- Increase aerobic physical activity by increasing the proportion of adults who meet current Federal physical activity guidelines for moderate or vigorous physical activity to 58.5%, and high school students who meet current physical activity guidelines for moderate or vigorous physical activity.
- Reduce screen time among high school students by increasing the proportion who watch TV for no more than 2 hours a day to 74.1%, and those who use the computer for no more than 2 hours a day to 78.2%.
- Reduce the proportion of high school students (grades 9-12) who drank soda one or more times per day in the past 7 days to 13.9%.

Maintaining healthy eating patterns throughout life can play a major role in cancer prevention, mainly because this is a potentially modifiable behavior. Therefore, the introduction of healthy eating patterns and physical activity at any time will promote overall health and greatly reduce the risk of cancer. Former smokers, a group at high risk of developing cancer, can also benefit from a healthy diet and a physically active lifestyle.

Evidence-based national dietary guidelines for cancer prevention have been issued by various organizations. Overall, recommendations include maintenance of a healthy weight and an active lifestyle, eating a healthy diet—emphasizing a variety of fruits, vegetables and whole-grain products and drinking alcohol only in moderation or not at all.<sup>38,39</sup>

Through the implementation of the 2008-2012 Plan, the Nutrition and Physical Activity Workgroup and the Regional Chronic Disease Coalitions were instrumental in supporting federal designation of New Jersey as a Fruit and Vegetable State, contributing to the New Jersey Department of Education's Core Curriculum Content Standards, maintaining a Speakers Bureau, and sponsoring numerous local coalition events.

Therefore, the Nutrition and Physical Activity Workgroup proposes that New Jersey residents continue to be educated about the importance of dietary factors and physical activity to decrease the risk of cancer through academic, worksite, and community education and recommends the following goals, objectives, and strategies.



### GOAL NP-1

To promote long-term healthy eating patterns, healthy weight, and physical activity for cancer prevention among New Jersey residents.

#### Objective NP-1.1

To increase the proportion of healthy foods, especially fruits, vegetables and dietary fiber, that New Jersey residents consume each day.

##### Strategies

###### NP-1.1.1

Review the New Jersey Department of Education's Core Curriculum Content Standards for inclusion of education about diet and nutrition, including healthy eating patterns, physical activity, and the prevention of cancer.

###### NP-1.1.2

Increase access to healthy foods, especially for high-risk groups, by supporting state-level nutrition programs, such as Special Supplemental Nutrition Program for Women, Infants and Children (WIC), and the Supplemental Nutrition Assistance Program-Education (SNAP-Ed).

#### Objective NP-1.2

To enhance, or support where necessary, statewide nutrition programs to help New Jersey residents reduce the risk of developing cancer.

##### Strategies

###### NP-1.2.1

Support an infrastructure to coordinate and collaborate on activities among existing nutrition programs and partnerships.

###### NP-1.2.2

Coordinate and support comprehensive, evidence-based nutrition education programs in allied fields by facilitating collaboration.

###### NP-1.2.3

Promote awareness of the link between weight and certain cancer types, such as breast (postmenopausal) or colorectal cancers.

#### Objective NP-1.3

To increase frequent, leisure-time physical activity, consistent with Healthy NJ 2020 goals.

##### Strategies

###### NP-1.3.1

Educate the public about ways to increase physical activity and reduce sedentary behavior by using existing programs and information sources.

###### NP-1.3.2

Promote the availability and accessibility of affordable opportunities for physical activity within communities.

###### NP-1.3.3

Continue to support an infrastructure within state government to coordinate and collaborate on activities among existing physical activity programs, e.g., Shaping NJ and Workplace Wellness Toolkit.

###### NP-1.3.4

Coordinate and support comprehensive, evidence-based physical activity education programs in allied fields by facilitating collaboration.

## **CHAPTER 2. Nutrition and Physical Activity**

### **Objective NP-1.4**

Support environmental changes to increase support for proper nutrition and physical activity at the state and local level.

#### **Strategies**

##### **NP-1.4.1**

Focus efforts on gaining support for initiatives that promote healthy eating, healthy weight and physical activity, e.g., Complete Streets.

##### **NP-1.4.2**

Increase support for the New Jersey Baby-Friendly Hospitals Initiative (NJBFHI) to promote lactation to decrease the risk of pre- and post-menopausal breast cancer.



## **CHAPTER 3**

### **Palliation**



## CHAPTER 3. Palliation

# P

alliation is frequently described as managing the physical, emotional, and spiritual needs of both patient and family.

This comprehensive approach requires a multi-disciplinary team for care, including nursing, pharmacy, social work, volunteer services, pastoral care, nutrition, arts, physical therapy, and medicine.<sup>40, 41, 42</sup>

The Palliation Workgroup and the Regional Chronic Disease Coalitions were successful in implementing public and professional education through public programs at senior sites, local libraries and community-based organizations that impacted over 600 attendees. A professional education webinar series included topics such as Pain Management and Symptom Management. They were also instrumental in supporting the New Jersey Pain Initiative, the Survivorship Conference, and numerous coalition-sponsored events. Building upon their successes, in this Plan the Palliation Workgroup will strive to: integrate knowledge about palliative care into professional, public health; ensure palliative care services are accessible for those who are chronically or terminally ill; and work toward increasing awareness about and the availability of complementary and alternative medicine (CAM) in palliative care.

Acknowledging that those with cancer are increasingly living with it rather than (quickly) dying from it, the Palliation Workgroup concurred that palliative care was certainly indicated for patients whose cancers were responsive to curative treatment, as well as for those in need of

end-of-life care. For patients with cancer at any stage, the benefits of care that recognizes psychological distress and spiritual needs, as well as physical symptoms are readily apparent.

*“ Palliative care is a coordinated, interdisciplinary approach to health care that enhances the quality of life of people with cancer and other illnesses. It targets the physical and psychological symptoms and spiritual needs of survivors from the time of diagnosis to end-of-life care in all settings.”*  
(Palliation Workgroup, 2006)

Note that through the phrase “from time of diagnosis to end-of-life care in all settings,” Workgroup members intend to include those with both chronic and terminal illness as appropriate recipients of palliative care.

Cancer patients continue to seek CAM to aid in disease and treatment related symptom management. CAM includes alternative medical systems, mind-body interventions, biological-based therapies, manipulative and body-based methods, and energy therapies.<sup>43</sup> Both patients and physicians must be aware of the risks and benefits associated with CAM use in palliative care.

In this Plan, barriers to effective palliative care at all levels must be overcome. As a result, the Palliation Workgroup proposes the following goals, objectives, and strategies to continue to achieve the best quality of life for patients and their families.



### GOAL PA-1

To integrate knowledge of palliative care into professional, public health, and legislative systems.

#### Objective PA-1.1

To educate healthcare professionals and the general public regarding the right to access palliative care and the benefits of comprehensive palliative care in all settings, when appropriate.

#### Strategies

##### PA-1.1.1

Integrate training on palliative care into primary and continuing education for practicing professionals.

##### PA-1.1.2

Collaborate with healthcare professional organizations to promote palliative care credentialing and ensure a sufficient workforce, including individuals trained in CAM.

##### PA-1.1.3

Develop a public education plan on palliative care for targeted populations based on capacity and needs assessments.

### GOAL PA-2

To ensure that palliative care services are accessible to cancer patients and others with chronic illnesses.

#### Objective PA-2.1

To ensure reimbursement for palliative care services.

#### Strategy

##### PA-2.1.1

Investigate palliative care reimbursement initiatives and engage insurance companies in further discussion of reimbursement for palliative care services, including psychosocial and bereavement counseling for the patient and the patient's family.

### GOAL PA-3

To increase awareness of the benefits and risks of CAM use in palliative care.

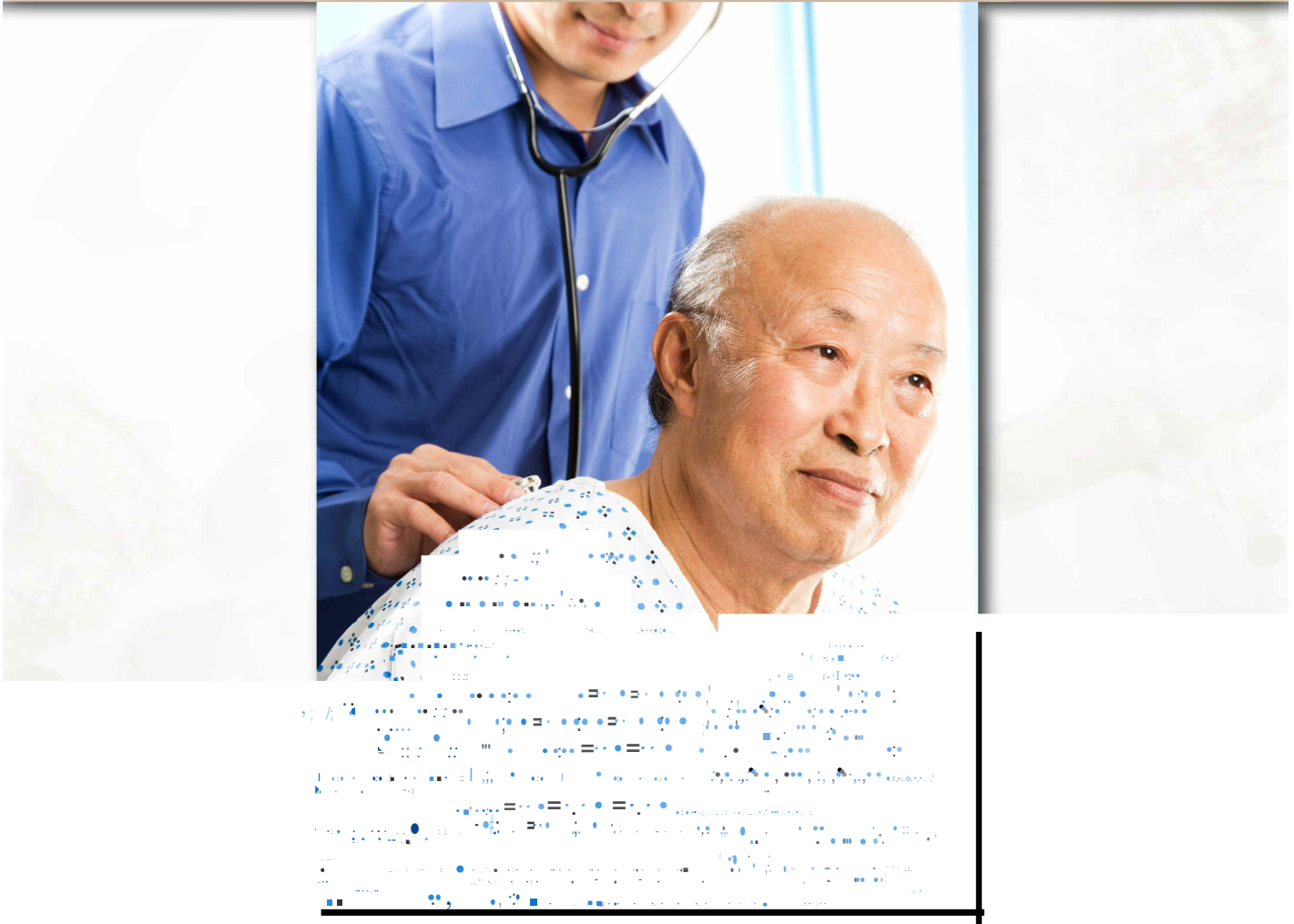
#### Objective PA-3.1

To increase awareness among healthcare professionals of the benefits and risks of CAM use in palliative care.

#### Strategy

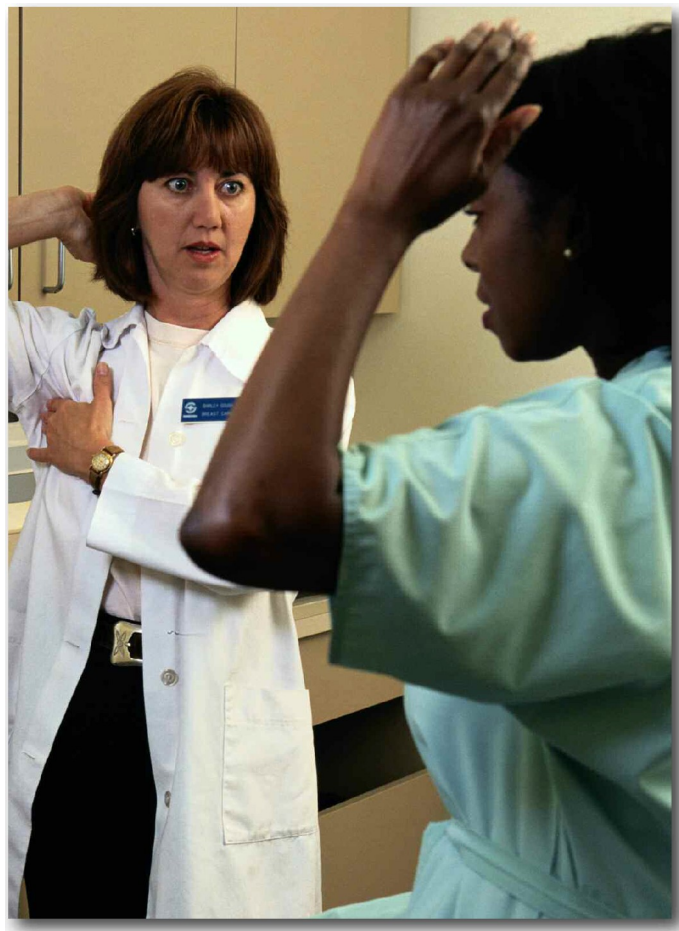
##### PA-3.1.1

Integrate training in CAM in palliative care into primary and continuing education for practicing health and social service professionals.





## CHAPTER 4 Breast Cancer





CHAPTER 4. Breast Cancer

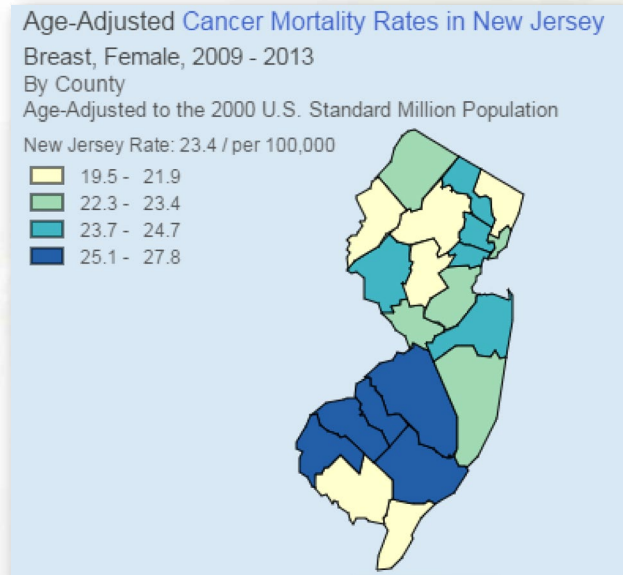
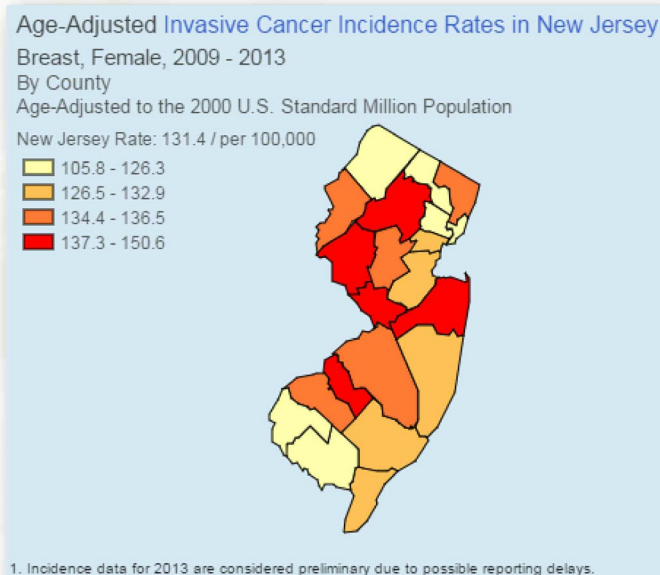
**BREAST CANCER FACTS IN NEW JERSEY<sup>3,44</sup>**

**Estimates**

- 89,050 women were living with breast cancer in New Jersey (2013).<sup>3</sup>
- 88.5% survived 5 Years after diagnosis (2002-2006).<sup>3</sup>

- Approximately 12.4 percent of women will be diagnosed with female breast cancer at some point during their lifetime, based on 2011-2013 data.<sup>45</sup>

**Figure 4**



Source: New Jersey State Cancer Registry

County-level measures can mask local disparities when counties contain large heterogeneous populations.

**Table 8: BREAST CANCER (INVASIVE ONLY)**

New Jersey Breast Cancer Average Annual Cases (Incidence) and Deaths (Mortality) Age-Adjusted Rates per 100,000 by Gender by Race: 2009-2013 <sup>3</sup>				
Cases (Incidence)		Race/Ethnicity	Deaths (Mortality)	
Women			Women	
NJ	US		NJ	US
131.4	125.0	All Races	23.4	21.5
135.5	128.0	White	23.1	21.0
120.6	125.2	Black	30.7	29.6
96.2	92.4	Hispanic*	12.5	14.5
89.8	97.3	Asian and Pacific Islander	11.2	11.2

\*Hispanic may be of any race. Therefore, the categories of race and ethnicity are not mutually exclusive.

Source: New Jersey State Cancer Registry<sup>3</sup>



Table 9

### Healthy NJ 2020 Target

- Reduce the death rate due to female breast cancer to 23.5 per 100,000 population.
- Reduce the incidence rate of late-stage female breast cancer to 43.7 per 100,000 population.
- Increase the proportion of women aged 50 to 74 who receive a breast cancer screening based on most recent guidelines (Proportion to be determined).

The causes of breast cancer are not all known, but some risk factors are well recognized. The major risk factors for breast cancer include:

- Age
- Genetic factors (personal or family history or genetic mutations)
- Hormonal factors
  - Early menarche (early onset of menstruation)
  - Late menopause
  - Late parity (bearing children late)
  - Null parity (not bearing children)
  - Exogenous estrogen exposure
- High breast tissue density (a mammographic measure of the amount of glandular tissue relative to fatty tissue in the breast)
- Very high doses of radiation (such as that used in radiation therapy)<sup>45,46,47</sup>

It is important to note that breast cancer may occur in men as well as women.

New Jersey black women are significantly more likely to die from breast cancer than other races/ethnicities even though they had lower incidence rates (see Table 8).

One type of breast cancer that is less well known is called inflammatory breast cancer (IBC). IBC is a rare but very aggressive type of breast cancer in which the breast often looks swollen and red, or “inflamed.” IBC accounts for 1% to 5% of all breast cancer cases in the US. It occurs more frequently and at a younger age in blacks than in whites. Symptoms of IBC may include redness, swelling, and warmth in the breast, often without a distinct lump in the breast.<sup>48</sup>

The Breast Cancer Workgroup and the Regional Chronic Disease Coalitions have experienced successes in the implementation of the 2008-2012 Plan that included the Men Against Breast Cancer Project with public presentations at Jewish Family Services and the then- South Jersey Healthcare System. State programs impacted by this program included the Office of Cancer Control and Prevention, New Jersey Cancer Education and Early Detection (NJCEED), and the Coalitions.

The IBC Awareness Campaign provided presentations at an annual meeting of the New Jersey Academy of Family Physicians (NJAFP) and the Coalition Coordinators, as well as published a Continuing Medical Education (CME) article entitled “Breast Imaging,” published in *Perspectives, the Journal of the New Jersey*

## CHAPTER 4. Breast Cancer

*Academy of Family Physicians.* In 2009, an IBC education and awareness event was held at Panera Bread in Hamilton, New Jersey in memory of a former Workgroup member. The program was attended by 100 people and proceeds from the event were donated to the Erase IBC Foundation. Other successes included partnership with the Survivorship Conference and numerous coalition-sponsored events.

Based upon these successes, incidence and mortality data, the Breast Cancer Workgroup, as discussed below, will focus on: educating New Jersey residents about breast health, with a priority on high-risk populations; reducing barriers to preventive care services and fostering recommendations by healthcare professionals for women to use available screening methods for breast cancer; recommending that breast cancer screening and early detection education be taught early to foster lifelong breast health; and increasing awareness about breast cancer among cancer patients themselves.

Although the Breast Cancer Workgroup discussed the importance of educating all New Jersey residents about breast health, wellness, prevention and quality breast cancer care, high-risk populations must be targeted first in order to address disparities apparent in the incidence and mortality data. In 2012, approximately 77% of women age 40 years and older reported getting a mammogram in the last two years.<sup>49</sup> There were no major differences between races or ethnicities in 2013, although the screening rate for black women (86.1%) surpassed that of white (78.6%) and Hispanic women (81.9%); however, large differences occur based upon education and income levels.<sup>49</sup> Less-educated women and lower-income women age 40 and older are less likely to have had a mammography screening within the

past two years. There is a significant difference of the percent screened between women who graduated from college – 83% versus 75% or less for women who did not complete college. Approximately 70%-71% of women who earn less than \$35,000 per year get a mammogram compared to those who earned more (81%).<sup>50</sup>

People who are concerned that they may be at increased risk of developing breast cancer should talk with their healthcare provider about current screening guidelines, appropriate screening modalities and preventive therapy based upon the guidance for personalized breast cancer screening. Informed decision-making can be made based upon individual risk factors, i.e., family history, which is present in only a small proportion of the population, or having high breast tissue density, which is a “powerful” indicator of who might benefit from earlier screening and occurs in more than half of women between the ages of 40 and 49.<sup>51,52</sup>

Primary Care healthcare providers hold a strategic position for the delivery of preventive care services because of their access to the patient population and their long-term relationship with patients. Tailored interventions, using a package that addresses specific professional barriers that need to change in a particular setting, are recommended to improve delivery of preventive services in primary care. The Breast Cancer Workgroup recommends that Primary Care healthcare professionals encourage women to use available screening methods for breast cancer.

Given both the importance and the complexity of the issues, people should have access to the best possible relevant information regarding both benefits and risks of screening, presented in an understandable and usable form. The Breast



Cancer Workgroup also proposes that breast cancer screening and early detection be taught early to foster knowledge about lifelong breast health.

Not only is it essential that awareness be increased in the general public, awareness must also be increased in the cancer patient population. Clinical trials are the major avenue for discovering, developing, and evaluating new therapies. However, only about 3% of all adult cancer patients participate in clinical trials.

Below are the Breast Cancer Workgroup's goals, objectives and strategies for a multi-dimensional approach to reduce breast cancer incidence and mortality in New Jersey.

### **GOAL BR-1**

To increase the practice of breast cancer early detection strategies among people at high risk of developing breast cancer.

#### **Objective BR-1.1**

To continue to identify areas in New Jersey where breast cancer incidence and mortality disparities are the greatest in order to learn where education and screening awareness efforts are most needed.

#### **Strategies**

##### **BR-1.1.1**

Using appropriate statistical models and tools, identify and describe geographic areas and population groups exhibiting high breast cancer mortality rates using demographic, service utilization, and epidemiologic data.

##### **BR-1.1.2**

Assess barriers to breast cancer screening (cultural barriers, help-seeking behaviors, socioeconomic factors, transportation, etc.), provider-related barriers (accessibility, waiting time, capacity, communication, etc.), institution-related barriers, and system-level barriers (analysis of payer data, claims data, policies and regulations, and standards of care) in these identified areas and/or population groups.

#### **Objective BR-1.2**

To increase public and professional awareness of the factors that place people at high risk for developing breast cancer.

#### **Strategies**

##### **BR-1.2.1**

Identify existing, and develop as needed, evidence-based breast cancer educational materials and programs to use in reaching all people and promoting awareness of breast cancer risk factors.

##### **BR-1.2.2**

Disseminate evidence-based, culturally and linguistically appropriate educational materials to diverse communities, as needed, through appropriate community-based organizations or members who care for them (e.g., healthcare providers, laypersons, survivors, and community leaders).

## **CHAPTER 4. Breast Cancer**

### **GOAL BR-2**

To improve public understanding of breast health, breast cancer, and screening to promote the value of early detection.

#### **Objective BR-2.1**

To support the development and implementation of a statewide breast cancer public awareness/media campaign to increase use of breast cancer screening.

##### **Strategies**

###### **BR-2.1.1**

Coordinate current media campaigns with a consistent message specifically promoting the availability of no-cost breast cancer screenings for those eligible through the New Jersey Cancer Education and Early Detection (NJCEED) Program. Develop media campaigns specifically promoting the Medicaid Breast and Cervical Cancer Treatment Program for eligible women who are screened and/or diagnosed through the NJCEED program.

###### **BR-2.1.2**

Collaborate with organizations and entities including healthcare professionals to communicate messages and effectuate the breast cancer campaign.

#### **Objective BR-2.2**

To identify breast cancer educational materials and resources to increase knowledge, improve public understanding of the value of screening and early detection, and promote high-quality breast health, paying special attention to vulnerable, high-risk populations.

##### **Strategies**

###### **BR-2.2.1**

Partner with relevant organizations in providing evidence-based comprehensive breast cancer educational materials to appropriate local and statewide community organizations for distribution to their constituencies.

###### **BR-2.2.2**

Distribute information about NJCEED sites to provide greater access to quality, no-cost breast cancer diagnostic and treatment services to targeted demographics.

#### **Objective BR-2.3**

To educate people who come in for breast cancer screening about early detection and the need for appropriate follow-up, diagnostic testing, and annual rescreening.

##### **Strategy**

###### **BR-2.3.1**

Identify existing, develop as needed and distribute widely, evidence-based, culturally and linguistically appropriate materials that describe the importance of rescreening and follow-up visits, where necessary.



## **CHAPTER 5**

### **Childhood Cancer**



CHAPTER 5. Childhood Cancer

CHILDHOOD CANCER FACTS IN  
NEW JERSEY<sup>1</sup>

Table 10: CHILDHOOD CANCER ALL SITES

New Jersey Childhood (Ages 0-14) and Teen (Ages 15-19) Cancer Average Annual Cases (Incidence) and Deaths (Mortality) Rates per 100,000 by Gender by Race: 2009-2013 <sup>3</sup>								
Cases (Incidence)				Race/Ethnicity	Deaths (Mortality)			
Childhood (Ages 0-14)		Teen (Ages 15-19)			Childhood (Ages 0-14)		Teen (Ages 15-19)	
Boys	Girls	Male	Female		Boys	Girls	Male	Female
18.8	17.5	26.4	27.3	All Races	2.1	1.9	3.9	2.2
19.2	17.6	29.2	30.3	White	2.4	2.0	4.2	2.3
13.5	14.5	15.2	15.4	Black	1.6	2.2	3.9	--
18.3	17.0	23.4	21.3	Hispanic*	2.0	1.7	3.0	--

\*Hispanic may be of any race. Therefore, the categories of race and ethnicity are not mutually exclusive.  
 -- rate not displayed due to fewer than 10 cases  
 Source: New Jersey State Cancer Registry<sup>3</sup>

Table 11: CHILDHOOD CANCER

New Jersey Childhood (Ages 0-14) and Teen (Ages 15-19) Cancer Cases (Incidence) and Deaths (Mortality) by Major Cancer Site, Gender, 2009-2013 <sup>1</sup>						
	Childhood (Ages 0-14)			Deaths		
	Cases					
	All	Boys	Girls	All	Boys	Girls
<b>All Sites</b>	18.2	18.8	17.5	2.0	2.1	1.9
Bones and Joints	0.8	0.8	0.9	0.1	--	--
Brain and Other Nervous System	3.8	3.8	3.7	0.6	0.6	0.6
Lymphoma	1.7	2.3	1.2	--	--	--
Hodgkin Lymphoma	0.6	0.8	0.5	--	--	--
Non-Hodgkin Lymphoma	1.1	1.5	0.7	--	--	--
Leukemia	5.3	5.7	4.9	0.6	0.7	0.6
Lymphocytic Leukemia	4.1	4.4	3.7	0.3	0.3	--
Acute Lymphocytic Leukemia	4.0	4.3	3.7	0.3	0.3	--
Soft Tissue including Heart	1.3	1.4	1.2	0.2	--	--
	Teen (Ages 15-19)			Deaths		
	Cases					
	All	Males	Females	All	Males	Females
<b>All Sites</b>	26.8	26.4	27.3	3.0	3.9	2.2
Bones and Joints	1.7	1.8	1.6	0.7	0.8	--
Brain and Other Nervous System	3.2	3.3	3.1	0.5	0.7	--
Lymphoma	7.0	7.6	6.4	--	--	--
Hodgkin Lymphoma	4.5	4.4	4.6	--	--	--
Non-Hodgkin Lymphoma	2.6	3.3	1.8	--	--	--
Leukemia	2.9	3.3	2.4	0.8	0.9	--
Lymphocytic Leukemia	1.3	1.9	0.8	--	--	--
Acute Lymphocytic Leukemia	1.3	1.8	0.8	--	--	--
Soft Tissue including Heart	1.2	1.1	1.3	--	--	--

-- rate not displayed due to fewer than 10 cases  
 Source: New Jersey State Cancer Registry<sup>3</sup>



Table 12

### Healthy NJ 2020 Target

- Target not established.

Just as children are not “little adults,” childhood cancer is different in many ways from adult cancer. The most common cancers in adults are breast, cervical, colorectal, lung, and prostate; children almost never contract any of these.

Leukemia, Acute lymphocytic leukemia, and brain and other nervous system constitute the top three diagnoses among children under 14 years of age in New Jersey. Lymphomas (7%) are the most common cancers among New Jersey adolescents ages 15-19 (see Table 11). Whites and Hispanics of any race have higher incidence rates than blacks, and white children have a higher mortality rate as well.

The Childhood Cancer Workgroup and the Regional Chronic Disease Coalitions have successfully implemented the 2008-2012 Plan. “Childhood Cancer: Negotiating the Present... Planning the Future,” was presented at the National Conference Center in East Windsor, New Jersey for physicians, nurses, social workers, and families of survivors and underwritten through outside funding. The conference had two tracks: ‘A Lion in the House,’ was for those children who have been diagnosed with cancer and highlighted the impacts of what it is like for them and their families as the children transition back into society after being diagnosed and treated, possibly experiencing late health effects. ‘SuperSibs!’ was for siblings of children who have been diagnosed with cancer and the impact of cancer on siblings.

The conference was videotaped for web posting. “Resources to Help Childhood, Adolescent, and Young Adult Cancer Survivors,” published in 2009 by the Workgroup, was distributed at the conference and posted on the Office of Cancer Control and Prevention’s website. Other successes included a partnership with the insurance industry and numerous coalition-sponsored events. Going forward, the Workgroup will focus on improving care, especially for adolescents and young adults, through clinical trial participation and advocacy, especially on issues related to long-term survivorship and medical care into adulthood.

Today, thanks to advances in cancer treatment, about 80% of children with cancer will be long-term survivors. As the number of childhood cancer survivors increases, particular attention must be paid to their unique needs. While most adults have completed their education, are employed (or even retired), and often have children before being diagnosed with cancer, many children have not had the opportunity to realize their life’s goals before they are diagnosed with cancer. Some have not yet started school, and most still have years ahead of them, during which they should develop physical and mental maturity. Ideally, a child who survives cancer may grow and develop normally, complete an education, be gainfully employed and eventually have children. However, ongoing aggressive treatment and the probability of survival may



## CHAPTER 5. Childhood Cancer

have profound effects on a child's physical/psychosocial development and future opportunities.

Many advances in childhood cancer treatment are the result of participation in clinical trials. Healthcare providers, patients, and families need to be made aware of the importance of participation in clinical trials. Pediatric patients treated at pediatric cancer centers are nearly twice as likely to be enrolled in clinical trials as patients treated at non-pediatric centers.<sup>53</sup> As there has been a direct correlation between participation in national protocols and being treated at pediatric cancer centers, the Childhood Cancer Workgroup recommends that healthcare providers be educated about the importance of referring patients to pediatric cancer centers.

Many of the treatments that have been instrumental in reducing mortality from childhood cancer can, themselves, have serious health consequences for the survivor. The side-effects of childhood cancer treatments include late effects, such as organ malfunction, secondary cancers, and cognitive disorders.<sup>54,55,56</sup> Two thirds of childhood cancer survivors experience at least one late effect, while one fourth experience severe or life-threatening late effects.

Advocacy for individual childhood cancer patients and their families should begin at the time of diagnosis. Education and advocacy are inextricably intertwined. Parents who are still in shock after being told their child has cancer must suddenly deal with a multitude of problems. They must learn the unfamiliar skills involved in taking care of their sick child, such as administering medications on schedule and taking care of

central venous catheters. They must learn how to interact with the school system to ensure their child receives an appropriate education and is not penalized for having to miss school. They must also continue to meet the ongoing, day-to-day needs of the patient's siblings. One parent may need to take a leave of absence from work, or even relinquish a job to devote additional time to their sick child. As a result, the importance of educating cancer survivors, their families, and key decision makers cannot be overemphasized.

For the above reasons, the Childhood Cancer Workgroup, in contributing to this Plan, has been challenged to develop solutions for the survivors of childhood cancer in New Jersey as evidenced by the goals, objectives, and strategies listed below.

### **GOAL CC-1**

To improve care for adolescents and young adults diagnosed with childhood cancer through encouraging participation in clinical trials.

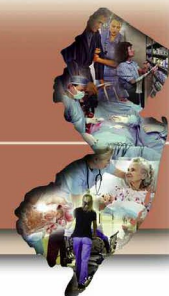
#### **Objective CC-1.1**

To educate healthcare providers about the availability of existing clinical research protocols and the referral of young adults through the age of 21 to pediatric oncology centers.

#### **Strategy**

##### **CC-1.1.1**

Collaborate with other organizations to develop and distribute educational materials about the availability and



importance of existing clinical research protocols and the available option to refer young adults through the age of 21 to pediatric oncology centers.

### **GOAL CC-2**

To increase advocacy for childhood cancer, especially on issues related to long-term survivorship and continuing medical care into adulthood.

#### **Objective CC-2.1**

To educate healthcare providers, such as, primary care, about issues regarding the medical aspects of long-term survivorship.

#### **Strategy**

##### **CC-2.1.1**

Work with stakeholders to disseminate evidence-based advances to healthcare providers through CME offerings.

#### **Objective CC-2.2**

To educate the community, about issues related to long-term survivorship.

#### **Strategy**

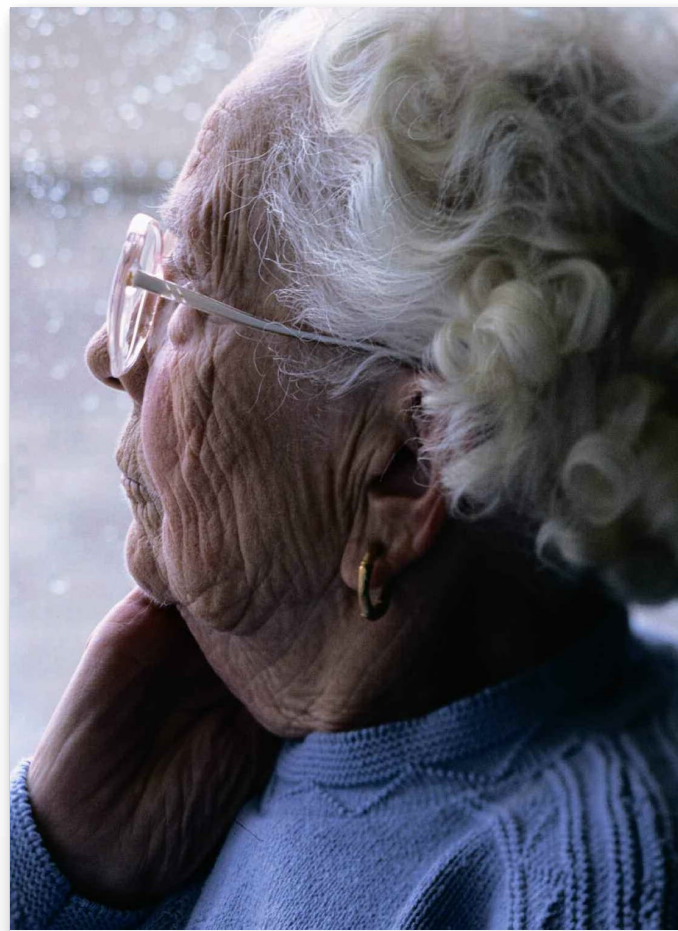
##### **CC-2.2.1**

Collaborate with organizations to investigate established models for hosting a statewide conference to educate targeted audiences on long-term survivorship issues, e.g., medical aspects.





**CHAPTER 6**  
**Colorectal Cancer**



CHAPTER 6. Colorectal Cancer

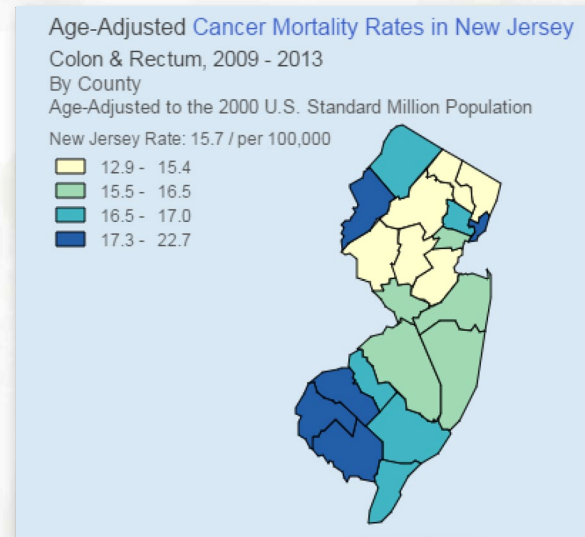
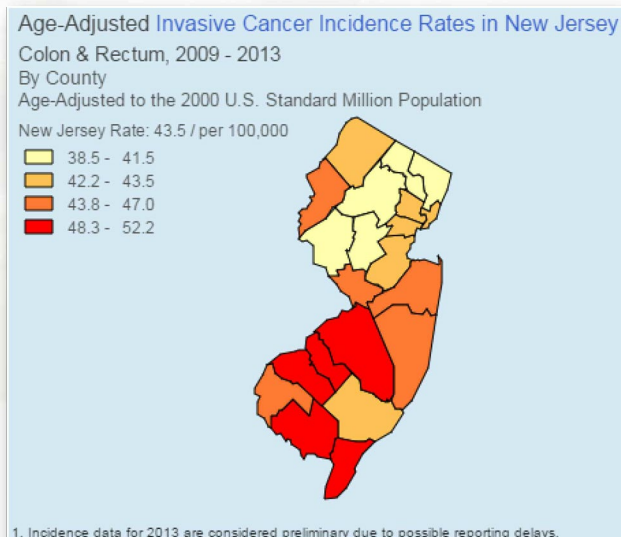
**COLORECTAL CANCER FACTS IN NEW JERSEY<sup>3</sup>**

**Estimates**

- 37,667 people (18,234 men, 19,433 women) were living with colorectal cancer in New Jersey (2013).<sup>3</sup>

- 64.9% survived 5 years after diagnosis (2002-2006).<sup>1</sup>
- Approximately 4.4% men and women in the US will be diagnosed with colorectal cancer during their lifetime, based on 2011-2013 data.<sup>57</sup>

**Figure 5**



Source: New Jersey State Cancer Registry

County-level measures can mask local disparities when counties contain large heterogeneous populations.

**Table 13: COLORECTAL CANCER (INVASIVE ONLY)**

New Jersey Colorectal Cancer Average Annual Cases (Incidence) and Deaths (Mortality) Age-Adjusted Rates per 100,000 by Gender by Race: 2009-2013 <sup>3,4</sup>								
Cases (Incidence)				Race/Ethnicity	Deaths (Mortality)			
Men		Women			Men		Women	
NJ	US	NJ	US		NJ	US	NJ	US
49.4	47.1	38.8	36.0	All Races	18.9	18.1	13.3	12.7
49.4	46.0	38.7	35.2	White	18.7	17.6	13.1	12.3
54.5	59.2	41.7	44.8	Black	26.4	26.1	16.7	17.1
45.1	41.3	35.4	29.4	Hispanic*	12.8	15.4	9.2	9.4
30.4	41.2	22.9	29.8	Asian and Pacific Islander	8.5	12.6	7.1	9.0

\*Hispanic may be of any race. Therefore, the categories of race and ethnicity are not mutually exclusive.



Table 14

### Healthy NJ 2020 Target

- **Reduce the incidence rate of invasive colorectal cancer to 39.7 per 100,000 population.**
- **Reduce the death rate due to colorectal cancer to 15.8 per 100,000 population.**
- **Increase the proportion of adults aged 50 to 75 years who receive a colorectal cancer screening based on most recent guidelines.**

It is well established that early detection of cancer through screening tests offers significantly improved chances for survival. Research suggests that the recent steady decline in colorectal cancer incidence and mortality rates may be due to increased screening and polyp removal preventing the progression of polyps to invasive cancers.<sup>58,59,60</sup> Yet despite established screening and treatment guidelines, widespread availability of testing, and widespread agreement among professional societies and the scientific community that screening can prevent colorectal cancer and reduce mortality, screening rates remain relatively low for the population as a whole. In 2012, 64.9% of residents age 50 years and older reported having ever had a colonoscopy or sigmoidoscopy.<sup>61</sup> Eligible adults with incomes less than \$45,000 per year are significantly less likely to get a sigmoidoscopy ( $\leq 60\%$ ) compared to those earning more money ( $\geq 68\%$ ). Likewise, lower educational levels are associated with not meeting the screening guidelines. Each year, black men are significantly more likely than white men to get colorectal cancer. Both black men and black women are significantly more likely than white men and white women to die from colorectal cancer. (See Table 13).

In recent years, colorectal cancer has received increased attention due in part to the efforts of the Colorectal Cancer Workgroup and the Regional Chronic Disease Coalitions to increase public and professional awareness. Their successes included Dialogue for Action, New Jersey's action plan to increase screening for colorectal cancer that advanced the use of patient navigators and supported federal and state legislation. Partnership with Capital Health Systems resulted in 484 patients being screened and 360 receiving colonoscopies through a colorectal cancer screening project.

Body and Soul, a faith-based cancer awareness program with an emphasis on colorectal cancer, was implemented in Trenton by the co-chair of the Workgroup. In 2012, the National Black Leadership on Cancer awarded a Body and Soul grant extending outreach for Trenton, East Orange and Jersey City.

The Office of Cancer Control and Prevention, along with NJCEED and the Supplemental Nutrition Assistance Program-Education (SNAP-Ed), collaborated on a Colorectal Cancer Awareness Campaign with the New Jersey Food Banks. And as of July 1, 2012, each Regional Chronic Disease Coalition is required to introduce

## CHAPTER 6. Colorectal Cancer

the Colorectal Cancer Screening Toolkit to five primary healthcare providers with the goal of recruiting three providers to implement the kit in an effort to increase screening rates.

The Colorectal Cancer Workgroup's aim in this Plan is to increase awareness of colorectal cancer as a preventable and curable cancer and the various screening options among all New Jersey residents, as a means of increasing colorectal cancer screening rates and decreasing the incidence and mortality of the disease. The Workgroup also recommends that educational efforts be targeted at healthcare providers to increase awareness and implementation of published screening guidelines.

Colorectal cancer screening rates are low for a number of reasons. Some reasons for not being screened are associated with the individual patient, even when adequately insured. Colorectal cancer and colorectal cancer screening tests are unpopular subjects. The public views the tests as distasteful and likely to be painful. Patients report that their doctors do not talk to them about colorectal cancer or their screening options. Awareness of colorectal cancer screening options is an important determinant of whether or not an individual is appropriately screened. To be effective, preventive initiatives focusing on colorectal cancer must be inclusive of the general population and those at increased risk for developing colorectal cancer, and must include the screening options currently available for the detection of colorectal cancer.

Education and awareness activities for the public and healthcare professionals must continue in

order to open and facilitate dialogue between patients and their healthcare providers as a means to increase usage of colorectal cancer screening tests and reduce the burden of disease among New Jersey residents. The public must also be made aware of the inherent and modifiable risk factors associated with colorectal cancer. Efforts to encourage a healthy diet and increased physical activity, as well as to discourage the use of alcohol and tobacco products, could lead to a reduction in incidence of colorectal and other cancers. Individuals with a personal or family history of colorectal polyps, cancer, or inflammatory bowel disease in particular, should be made aware of their increased risk of developing colorectal cancer and should be encouraged to speak with a healthcare provider about early screening.<sup>62</sup>

Clearly, one of the most important priorities for action is to improve public awareness about colorectal cancer as a preventable and curable cancer; about the benefits of colorectal cancer screening; and about the specifics of screening options. While several screening methods have been tested and used, only colonoscopies detect cancer and pre-cancerous polyps throughout the entire length of the colon and remove them, thus preventing development of invasive cancers.

Only through recognition of colorectal cancer as a major health problem will we be able to effectively influence incidence and mortality rates as evidenced by the following goals, objectives and strategies proposed.



### GOAL CO-1

To raise awareness of prevention and screening colorectal cancer for all residents of New Jersey of at least high school age by 2020, with regard to effective measures available for prevention, detection, and treatment to improve the quality of life and survival rates for those diagnosed.

#### Objective CO-1.1

To target specific educational efforts for subpopulations, including but not limited to, lower socioeconomic status (SES) and high-risk groups, in order to increase awareness of colorectal cancer.

#### Strategy

##### CO-1.1.1

Identify targeted educational interventions to reduce gaps in awareness and behaviors around colorectal cancer screening among men and women 50 years of age and older residing in New Jersey.

#### Objective CO-1.2

To increase knowledge and ensure healthcare providers practice behaviors that stress the importance of colorectal cancer screening and the need for patient education.

#### Strategy

##### CO-1.2.1

Recommend that healthcare professional organizations educate their members based on identified knowledge gaps regarding screening for colorectal cancer.

### GOAL CO-2

To increase colorectal cancer screening rates among New Jersey residents.

#### Objective CO-2.1

To increase colorectal cancer screening rates among uninsured and underinsured populations in New Jersey.

#### Strategies

##### CO-2.1.1

Continue to partner with NJCEED to educate uninsured and underinsured populations regarding resources available for prevention, detection, and treatment of colorectal cancer.

##### CO-2.1.2

Promote awareness of the NJCEED program and its services among New Jersey residents.

##### CO-2.1.3

Advocate for increased funding for screening and treatment under the NJCEED program.

#### Objective CO-2.2

To increase colorectal cancer screening rates among the insured population in New Jersey.

#### Strategy

##### CO-2.2.1

Promote the use of screening reminders and other interventions to increase colorectal cancer screening recommendations by healthcare providers.







## **CHAPTER 7**

### **Gynecologic Cancer**



CHAPTER 7. Gynecologic Cancer

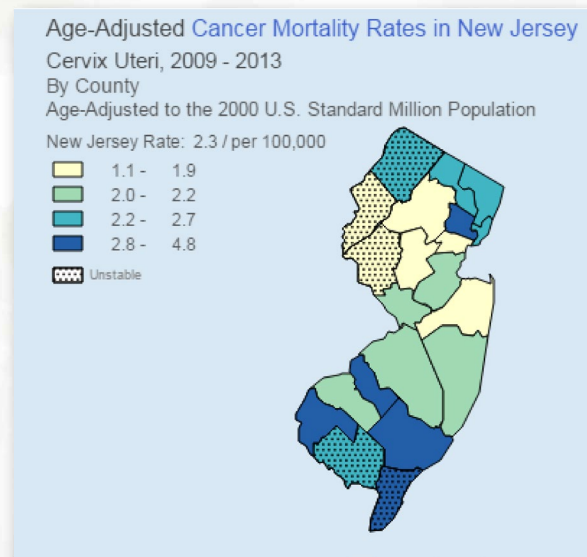
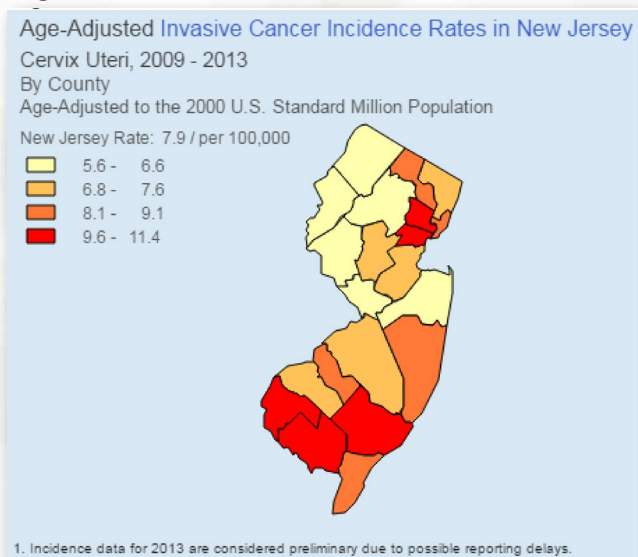
**CERVICAL CANCER FACTS IN NEW JERSEY<sup>3,45</sup>**

**Estimates**

- 8,909 women were living with cervical cancer in New Jersey (2013).<sup>3</sup>

- 68.1% survived 5 years after diagnosis (2002-2006).<sup>3</sup>
- 0.6% of US women will be diagnosed with cervical cancer during their lifetime per the 2011-2013 data.<sup>45</sup>

**Figure 6**



Source: New Jersey State Cancer Registry  
County-level measures can mask local disparities when counties contain large heterogeneous populations.

**Table 15: CERVICAL CANCER (INVASIVE ONLY)**

New Jersey Cervical Cancer Average Annual Cases (Incidence) and Deaths (Mortality) Age-Adjusted Rates per 100,000 by Gender by Race: 2009-2013 <sup>3</sup>				
Cases (Incidence)		Race/Ethnicity	Deaths (Mortality)	
Women			Women	
NJ	US		NJ	US
7.9	7.5	All Races	2.3	2.3
7.7	7.5	White	2.2	2.1
10.5	8.9	Black	4.1	3.9
10.5	9.4	Hispanic*	2.6	2.6
4.3	6.2	Asian and Pacific Islander	1.3	1.8

\*Hispanic may be of any race. Therefore, the categories of race and ethnicity are not mutually exclusive.



Table 16

### Healthy NJ 2020 Target

- **Reduce the incidence rate of invasive uterine cervical cancer to 7.2 per 100,000 population.**
- **Reduce the death rate due to invasive uterine cervical cancer to 1.9 per 100,000 population.**
- **Increase the proportion of women aged 21 to 65 years who receive a cervical cancer screening.**

Cervical cancer is a highly preventable and curable disease. Most cervical cancers develop over a relatively long period of time, allowing for early detection and treatment.<sup>64</sup> Cervical cancer incidence and mortality can be reduced effectively through adherence to the Advisory Committee on Immune Practices' (ACIP) recommendations for Human Papilloma Virus (HPV) vaccination, plus early detection using the Papanicolaou (Pap) test and HPV testing for high-risk subtypes. The decline in death rates from cervical cancer in the US thus far, has been widely attributed to use of Pap tests for early detection.<sup>45</sup> Approximately 86.1% of New Jersey's adult women 18 and over with an intact cervix had a Pap test within the past two years. There is a significant difference between any races or ethnicities in Pap test screening rates.<sup>66</sup> Screening rates among Asian women were 71.4% in 2012-2013 in comparison to 89.7% among black and 86.9% among white New Jersey women. The average annual cases for black and Hispanic women, as well as annual deaths for black women, are significantly higher than all other races or ethnicities. (See Table 15.) In addition, three distinct geographic areas where there are significantly higher incidence rates, for example, in the north, primarily Newark/Elizabeth;

central, primarily Trenton; and south, primarily Camden, have been identified.<sup>15</sup>

To address cervical cancer in New Jersey, the Gynecologic Cancer Workgroup and the Regional Chronic Disease Coalitions have had many successes in implementing the 2008-2012 Plan. For example, the Cervical Cancer Subcommittee developed a resource guide, "Cervical Cancer & HPV: What are Your Concerns." Targeted audiences for distribution have included school nurses, Coalitions, and NJCEED Lead Agencies. Several school nurse workshops were held, with approximately 400 training manuals distributed thus far. This guide was developed to provide information and resources not only to healthcare providers, but also to patients and the community, and is posted on the Office of Cancer Control and Prevention's website. Numerous coalition-sponsored events have been held addressing both gynecologic cancers.

In this Plan, the Cervical Subcommittee will continue to focus on public and professional education about cervical cancer, the HPV vaccine, and the need for adhering to screening guidelines. Public education is an important means to increase awareness of cervical cancer, the HPV

## CHAPTER 7. Gynecologic Cancer

vaccine, and the need for screening. It is recommended that community-based approaches be used to reach diverse populations.

The Gynecologic Cancer Workgroup also identified professional education in its educational recommendations. Given the importance of healthcare provider recommendation in patient adherence to cervical cancer screening guidelines, the Workgroup proposes that healthcare professionals continue to receive education and materials designed to increase their awareness of cervical cancer and the importance of discussing screening with patients.

It is important to increase physician and patient awareness of, and participation in, clinical trials to test new treatments more rapidly, find more effective treatments, and broaden the options available to patients.<sup>26</sup>

HPV is a virus with more than 100 types, 13 of which are cancer-causing and over 30 infect the genital tract.<sup>67</sup> Some non-oncogenic types of HPV can cause genital warts, while others may have no symptoms. Vaccine acceptability is largely associated with knowledge of HPV and the associated risks. Due to the sexual nature of genital HPV infections, vaccinating young adults may encounter unique barriers to parental consent. In addition to barriers against other vaccines, such as concern over side effects and religious beliefs, parents may fear that vaccination against a sexually transmitted infection (STI) may encourage their adolescent children to engage in sexual activity.<sup>68,69,70,71</sup>

Evidence also suggests that when parents are educated about HPV and the HPV vaccine, they are significantly more likely to be in favor of

HPV vaccination.<sup>69,71</sup> Factors that may increase parental acceptance of HPV vaccination include school requirements, healthcare provider endorsement, knowledge of HPV, and personal attitudes and beliefs. Recommendations by healthcare professionals and professional organizations have been identified as a significant factor in parental acceptance of HPV vaccination.<sup>68,69,71</sup>

The Gynecologic Cancer Workgroup developed the following goals, objectives and strategies as its next steps in reducing the burden of cervical cancer in New Jersey.

### GOAL GY-1

To improve access to cervical cancer screening and treatment in New Jersey.

#### Objective GY-1.1

To increase access to cervical cancer screening and treatment for New Jersey women.

#### Strategy

##### GY-1.1.1

Identify and refer New Jersey populations to existing programs, e.g., NJCEED, for screening, education, and treatment for cervical cancer.

### GOAL GY-2

To increase public awareness and education about cervical cancers among all women.

#### Objective GY-2.1

To bolster efforts to educate the public about cervical cancer by using culturally sensitive



and linguistically appropriate educational materials and programs to reach all women.

### Strategies

#### GY-2.1.1

Identify, and develop where needed, evidence-based educational materials and programs that are effective for populations with an increased risk of cervical cancer, including media campaigns, professional/lay champions, and enhancing events during Cervical Cancer Awareness Month (currently in January).

#### GY-2.1.2

Outreach to increased-risk populations with culturally sensitive cervical cancer educational materials and programs, by partnering with local organizations and businesses that work within the areas of populations identified.

#### GY-2.1.3

Design a progressive, age-appropriate cancer prevention on-line campaign, stressing the importance of cervical cancer screening and early detection, especially targeting populations at increased risk.

### GOAL GY-3

To increase the awareness of healthcare professionals concerning cervical cancer, risk factors, screening guidelines, follow-up, and treatment options.

#### Objective GY-3.1

To educate healthcare professionals about the importance of cervical cancer screening, risk factors, follow-up, treatment options, and cultural sensitivity.

### Strategies

#### GY-3.1.1

Distribute AAP and CDC cervical cancer educational brochures appropriate for dissemination among healthcare providers.

#### GY-3.1.2

Partner with professional organizations to offer incentives to healthcare professionals for completion of cervical cancer educational modules/in-services. This can be in the form of Continuing Medical Education (CME) credits and/or recognition.

#### GY-3.1.3

Disseminate clinical guidelines for cervical cancer screening and follow-up to appropriate healthcare providers.

## **CHAPTER 7. Gynecologic Cancer**

### **GOAL GY-4**

To improve awareness and encourage use of the HPV vaccine in the indicated populations.

#### **Objective GY-4.1**

Follow AAP and CDC strategies for HPV vaccine implementation in New Jersey.

#### **Strategies**

##### **GY-4.1.1**

Partner with stakeholders to inform the healthcare community of the Advisory Committee on Immune Practices' recommendations regarding HPV vaccines.

##### **GY-4.1.2**

Explain the importance of practicing routine healthcare procedures, such as breast self-examination, testicular examinations, and HPV vaccine.

##### **GY-4.1.3**

Advocate for access to HPV vaccination for targeted, age-appropriate populations.

#### **Objective GY-4.2**

To educate parents/guardians, young women and men about the risk of HPV-associated disease and the benefits and availability of vaccination.

#### **Strategies**

##### **GY-4.2.1**

Identify, and develop where needed, evidence-based educational materials and programs to inform the target population.

##### **GY-4.2.2**

Partner with stakeholders to outreach to the target populations with evidence-based HPV educational materials and programs.

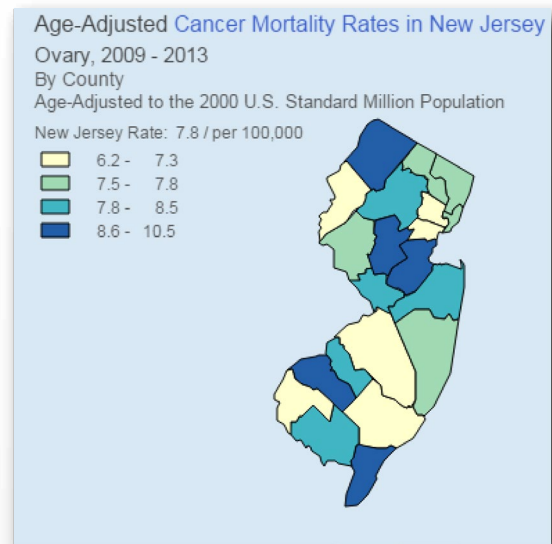
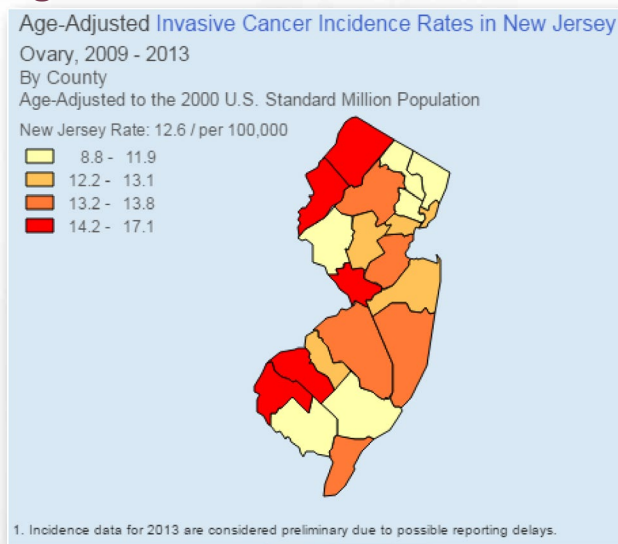


### OVARIAN CANCER FACTS IN NEW JERSEY<sup>3,72</sup>

#### Estimates

- 6,501 women were living with ovarian cancer in New Jersey (2013).<sup>3</sup>
- 45.5% survived 5 years after diagnosis (2002-2006).<sup>3</sup>
- 1.3% US women will be diagnosed with ovarian cancer during their lifetime (2011-2013).<sup>72</sup>

**Figure 7**



Source: New Jersey Cancer Registry

County-level measures can mask local disparities when counties contain large heterogeneous populations.

**Table 17: OVARIAN CANCER (INVASIVE ONLY)**

New Jersey Ovarian Cancer Average Annual Cases (Incidence) and Deaths (Mortality) Age-Adjusted Rates per 100,000 by Gender by Race: 2009-2013 <sup>3</sup>				
Cases (Incidence)		Race/Ethnicity	Deaths (Mortality)	
Women			Women	
NJ	US		NJ	US
12.6	11.9	All Races	7.8	7.5
13.2	12.5	White	8.3	7.8
9.9	9.6	Black	6.4	6.5
9.6	10.6	Hispanic*	4.7	5.5
9.7	9.3	Asian and Pacific Islander	4.3	4.5

\*Hispanic may be of any race. Therefore, the categories of race and ethnicity are not mutually exclusive.



## CHAPTER 7. Gynecologic Cancer

Table 18

### Healthy NJ 2020 Target

- Target not established.

### OVARIAN CANCER

It is a myth that ovarian cancer is most often asymptomatic. Many women diagnosed with ovarian cancer recall experiencing symptoms of the disease several months before diagnosis. However, they are usually unaware that the symptoms could be associated with ovarian cancer.<sup>73</sup> Symptoms of ovarian cancer may include enlargement of the abdomen; abdominal bloating or pain; abnormal vaginal bleeding (rarely); fatigue; change in bowel habits, digestive disturbances, or inability to eat normally; pelvic pain; constipation; back pain and urinary frequency or incontinence; and unexplained weight loss or gain. Symptoms are usually sudden and persist despite home treatment. However, often these symptoms are not recognized as cause for concern, and many patients and healthcare professionals attribute them to other conditions.<sup>74,75,76</sup> White women are significantly more likely to get ovarian cancer in New Jersey and die from it than non-white women. (See Table 17.)

While implementing the 2008-2012 Plan, the Ovarian Cancer Subcommittee assisted with the planning of a continuing medical education program on ovarian cancer. Held in 2009 in collaboration with Cooper Healthcare Systems, the audience included primary healthcare providers and specialists, such as obstetrics/gynecology. The Subcommittee also

held the 1st Annual New Jersey Statewide Ovarian Cancer Symposium, “One Force to Make a Difference,” in 2010 with the goal of raising awareness of ovarian cancer and promoting funding efforts for ovarian cancer research. A second similar conference was held in 2011. The Regional Chronic Disease Coalitions and the NJCEED program work together to participate in and disseminate educational materials for Ovarian Cancer Awareness during the month of September.

The Ovarian Cancer Subcommittee will continue to educate the public and healthcare providers about early signs and symptoms of ovarian cancer and risk factors in this Plan. Currently, an effective screening mechanism to detect ovarian cancer does not exist. Contrary to what many women believe, the Pap test, which screens for cervical cancer, is not effective in detecting ovarian cancer. Because ovarian cancer often has no significant signs or symptoms until the later stages, it is difficult to diagnose the disease in its earliest stages when it is most treatable.

Women who are aware of their risk of developing ovarian cancer due to one or more risk factors, may be more likely to notice early symptoms of the disease and seek medical care, leading to earlier diagnosis. Educating women and healthcare professionals about the risk factors and symptoms associated with ovarian cancer is currently the only means to decrease morbidity



and mortality from the disease. The Gynecologic Cancer Workgroup is in agreement with the American College of Obstetricians and Gynecologists (ACOG), which recommends that, in order to increase the early diagnosis of ovarian cancers, both patients and clinicians must be educated about symptoms associated with ovarian cancer and must have a high index of suspicion of the disease in symptomatic women. Educational programs must be targeted at women, emphasizing the importance of recognizing the early symptoms of ovarian cancer and the need for an annual pelvic exam. Women should also be educated about self-monitoring strategies for ovarian health as a strategy for reducing diagnosis delays during self-care.<sup>77</sup>

In addition, clinicians must be educated with state-of-the-science ovarian cancer health programs that emphasize recognition of early signs and symptoms and the risk of misdiagnosis.<sup>77</sup> Clinical trials are the major avenue for discovering, developing, and evaluating new therapies. It is important to increase physician and patient awareness of, and participation in, clinical trials if we are to test new treatments more rapidly, find more effective treatments, and broaden the options available to patients.<sup>26</sup>

### **GOAL GY-5**

To increase awareness of the early signs, symptoms, and risk factors associated with ovarian cancer.

#### **Objective GY-5.1**

To collaborate with organizations to promote public awareness of ovarian cancer early signs, symptoms, and risk factors.

#### **Strategy**

##### **GY-5.1.1**

Make public awareness and education materials about ovarian cancer early signs, symptoms and risk factors available on-line.

#### **Objective GY-5.2**

To educate healthcare professionals about the early signs and symptoms of ovarian cancer to identify those women at greatest risk through family history or other significant risk factors.

#### **Strategies**

##### **GY-5.2.1**

Partner with organizations and universities to obtain professional education and awareness materials and messages.

##### **GY-5.2.2**

Work with stakeholders to disseminate appropriate professional education and awareness materials and messages, and encourage collaboration between primary care and gynecologic oncologists through CME offerings.





## **CHAPTER 8** Lung Cancer



CHAPTER 8. Lung Cancer

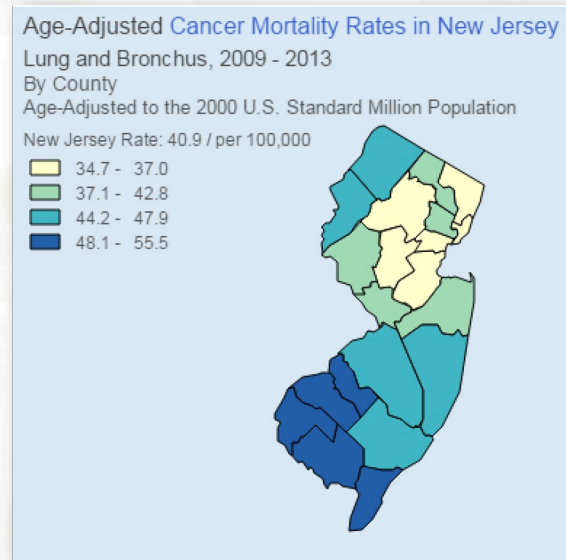
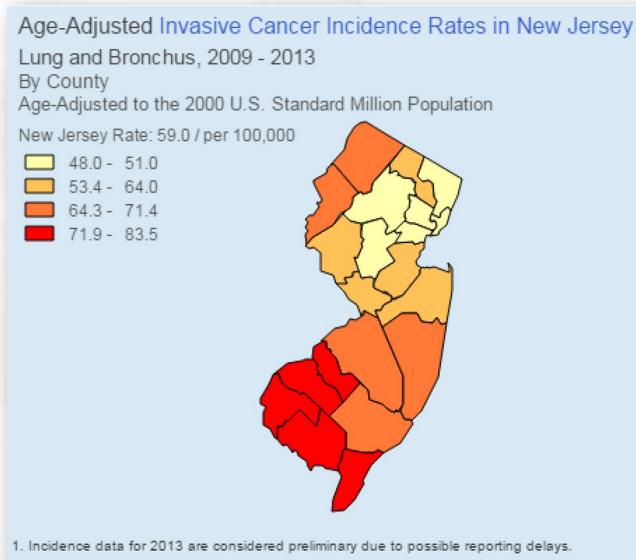
**LUNG CANCER FACTS IN NEW JERSEY<sup>3,78</sup>**

**Estimates**

- 13,334 people (5,666 men, 7,668 women) were living with lung cancer in New Jersey (2013)<sup>3</sup>.

- 18% survived 5 years after diagnosis (2002-2006).<sup>3</sup>
- 6.5% of the US population will be diagnosed with lung cancer during their lifetime, based on 2011-2013 data.<sup>78</sup>

**Figure 8**



Source: New Jersey State Cancer Registry  
County-level measures can mask local disparities when counties contain large heterogeneous populations.

**Table 19: LUNG CANCER (INVASIVE ONLY)**

**New Jersey Lung Cancer Average Annual Cases (Incidence) and Deaths (Mortality)**  
**Age-Adjusted Rates per 100,000 by Gender by Race: 2009-2013<sup>3</sup>**

Cases (Incidence)				Race/Ethnicity	Deaths (Mortality)			
Men		Women			Men		Women	
NJ	US	NJ	US		NJ	US	NJ	US
67.7	67.9	53.1	49.4	All Races	50.2	57.8	34.3	37.0
69.0	68.1	56.1	51.8	White	51.3	57.7	36.2	38.3
74.3	87.3	47.6	50.0	Black	57.9	70.6	31.4	35.3
45.1	36.6	28.3	24.8	Hispanic*	26.4	28.3	11.0	13.5
34.5	47.9	22.0	28.5	Asian and Pacific Islander	22.7	32.7	13.6	18.1

\*Hispanic may be of any race. Therefore, the categories of race and ethnicity are not mutually exclusive.



Table 20

### Healthy NJ 2020 Target

- Reduce the death rate due to lung cancer to 42.0 per 100,000 population.
- Increase the percentage of homes in New Jersey that have ever been tested for radon to 40% (35% target has been achieved).

Smoking is the single most preventable cause of death and disease and the leading cause of lung cancer. Tobacco smoking is responsible for 90% (almost 9 out of 10) of lung cancer deaths.<sup>79</sup> The Surgeon General's report, *The Health Consequences of Smoking - 50 Years of Progress*, found sufficient evidence that smoking contributes not only to the cause of lung cancer, but also cancers of the bladder, cervix, colon, esophagus, kidney, larynx, liver, oral cavity and pharynx, pancreas, and stomach, as well as acute myeloid leukemia.<sup>80,81</sup> Exposure to secondhand smoke increases the risk for heart disease and lung cancer among nonsmokers.<sup>82</sup> Although New Jersey black men have significantly more lung cancer cases and more deaths from the disease than other races and ethnicities, lung cancer death rates for New Jersey white men also far surpass the Healthy NJ 2020 goal of 42.0 per 100,000 population, age-adjusted. (See Table 19.)

While tobacco is the leading cause of lung cancer, and tobacco cessation is the most effective method for reducing lung cancer morbidity and mortality, there are other factors that contribute to the lung cancer burden in New Jersey. These other risk factors include environmental and occupational exposures including secondhand smoke, radon, asbestos, arsenic, and some organic chemicals (such as benzene), as well as radiation

exposure, air pollution, and tuberculosis. Most importantly, though, there is an interaction between cigarette smoking and exposure to radon or asbestos, resulting in a significantly greater risk of lung cancer than would be attributed to either of the exposures alone.<sup>79</sup>

There also may be a genetic, or inherited, component placing some individuals at an increased risk of developing lung cancer.

To reduce lung cancer in New Jersey, the Lung Cancer Workgroup, cognizant of the need to educate New Jersey residents, developed a webinar series for healthcare providers on prevention, detection, and treatment that impacted over 200 attendees. The Workgroup has also supported the Hospital Smoke-free Campaign that succeeded in recruiting 90% of New Jersey's healthcare systems. The Workgroup and the Regional Chronic Disease Coalitions' efforts have also been focused on encouraging the creation of smoke-free outdoor municipal ordinances and have hosted numerous coalition-sponsored events. For this Plan, the Workgroup anticipates that it will continue to collaborate with the New Jersey Comprehensive Tobacco Control Program (NJCTCP) to educate the public and healthcare providers about tobacco control issues, such as harmful effects of secondhand environmental smoke, the awareness of tobacco treatment

## CHAPTER 8. Lung Cancer

resources, and to increase the detection of lung cancer at earlier stages per evidence-based recommendations.

The major intervention in the prevention of lung cancer is tobacco control. The most effective approach to tobacco control is to enact public policies that reduce tobacco use. Proven strategies include increasing tobacco taxes, making tobacco-dependence resources available, and restricting tobacco use in public places.<sup>83,84</sup> Policies that restrict the use of tobacco in public places have been shown to increase the social unacceptability of tobacco use, leading to a reduction in overall smoking prevalence.<sup>78</sup> In 2006, the Surgeon General released a report on the health effects of secondhand smoke. The report concluded that secondhand smoke causes premature death and disease among adults and children and recommends the elimination of smoking in indoor spaces as the only way to fully protect nonsmokers from exposure to secondhand smoke.<sup>85</sup> The Lung Cancer Workgroup recommends collaborating with the NJCTCP to overcome implementation barriers and facilitate provider actions to achieve desired outcomes.

In 2008, the US Department of Health and Human Services updated the Public Health Service's (PHS) *Guidelines for Treating Tobacco Use and Dependence 2008 Update* (henceforth referred to as the PHS Guidelines).<sup>86</sup> The PHS Guidelines provide clinicians with excellent strategies to help their patients abstain from tobacco. But the guidelines are rendered useless if providers are unaware of them and are unable to execute them effectively. Since publication of the PHS Guidelines, the challenge of tobacco control advocates has been to persuade healthcare providers to implement the recommendations in

their respective practices. A concerted effort must be made to inform healthcare providers of the resources available for specialty referral and improve their use.

Healthcare providers also have the opportunity to intervene in circumstances beyond the direct patient's habit. This would include pediatricians addressing environmental tobacco smoke in the household of smokers; obstetricians addressing smoking during pregnancy and the fetal effects that ensue; and the correlation of tobacco use to other diseases.

It is important to note that not all lung cancers occur among current smokers. Former smokers and never-smokers should be aware of the factors that may put them at risk for developing lung cancer. While some of the risk factors for lung cancer, such as heredity, cannot be controlled or prevented, raising awareness will ultimately help New Jersey residents avoid environmental and occupational exposures that may increase their risk of developing lung cancer. According to the US Environmental Protection Agency (EPA), radon exposure is the second leading cause of lung cancer and the leading cause among non-smokers. Radon-induced lung cancer, like tobacco-related cancers, can be prevented by reducing the radon source. The US Surgeon General and EPA recommend testing for radon and reducing high radon levels.<sup>87</sup> New Jersey has a Radon Hazard Subcode in place for new homes and schools in the highest radon risk areas, but much more needs to be done to raise awareness of this significant environmental risk for lung cancer to get all new homes and existing homes tested and mitigated for radon when elevated levels are found.



For those who are at increased risk for lung cancer due to heredity or past exposures, raising awareness of lung cancer risk and symptoms can lead to earlier detection. The symptoms of lung cancer may include persistent cough, sputum streaked with blood, chest pain, and recurring pneumonia or bronchitis.<sup>79</sup> In the absence of sufficient evidence to recommend broad, population-based lung cancer screening of asymptomatic individuals, it is important to not only educate the public about the risk factors of lung cancer, but also the signs and symptoms of the disease to facilitate early diagnosis and treatment. It is equally important to educate the public as to the correlation of tobacco use to not only lung cancer, but also other cancers and chronic diseases, such as heart disease.

Lung cancer is the leading cause of cancer death in the US. Its major cause is cigarette smoking. Lung cancer is usually detected at the late stage, making treatment more difficult. Therefore, tobacco control and early detection are the two most important strategies for the reduction of lung cancer incidence and mortality. To save lives through early detection, the US Preventive Services Task Force recently recommended lung cancer screening of high-risk people by low-dose Computed Tomography (CT).<sup>88</sup> But continued research is needed to develop more effective measures for tobacco control and early detection, such as lung cancer early detection trials, or the impact of electronic smoking devices upon the public's health.<sup>26</sup>

The Lung Cancer Workgroup and the Regional Chronic Disease Coalitions have experienced successes in numerous coalition-sponsored events and recommend the following goals, objectives, and strategies.

### GOAL LU-1

To adopt the goals already formulated by the New Jersey Comprehensive Tobacco Control Program, namely:

- Reducing the acceptability of tobacco use among all NJ residents;
- Eliminating involuntary exposure to secondhand smoke both legally and socially;
- Reducing tobacco use among population groups who are disparately affected by tobacco; and
- Raising awareness about the need for a sustained tobacco control program in New Jersey.

### Objective LU-1.1

To support the long-term goals of the New Jersey Comprehensive Tobacco Control Program and its comprehensive components by increasing funding to the levels recommended by the CDC.

### Strategies

#### LU-1.1.1

Broaden the number and scope of advocates for tobacco control by identifying new advocates and advocacy groups that will advocate for tobacco control, such as the Office of Tobacco Control Program's Smoke-free Policy Tool Kit.

#### LU-1.1.2

Increase the awareness and use of New Jersey tobacco treatment resources in communities.

#### LU-1.1.3

Increase the awareness and improve use of the Rutgers School of Public Health Certified Tobacco Treatment Specialist training program.



## **CHAPTER 8. Lung Cancer**

### **GOAL LU-2**

To increase the proportion of providers in New Jersey who properly and effectively implement the Public Health Service Guidelines regarding tobacco-dependency treatment.

#### **Objective LU-2.1**

To increase provider knowledge regarding available resources for tobacco-dependency treatment in New Jersey, such as Quitline.

#### **Strategies**

##### **LU-2.1.1**

Support promotional programs to increase the awareness of tobacco-dependency treatment in New Jersey, such as Quitline.

##### **LU-2.1.2**

Collaborate with stakeholders to disseminate information about tobacco-dependency treatment to New Jersey healthcare providers through CME offerings.

### **GOAL LU-3**

To increase the detection of lung cancer at earlier stages.

#### **Objective LU-3.1**

To support evidence-based recommendations for lung cancer screening among high-risk people to decrease lung cancer mortality.

#### **Strategies**

##### **LU-3.1.1**

Work with stakeholders to disseminate evidence-based advances for lung cancer screening to New Jersey healthcare providers through CME offerings.

#### **LU-3.1.2**

Work with stakeholders to educate New Jersey residents about state-of-the-art lung cancer screening.

### **GOAL LU-4**

To heighten public awareness and knowledge of lung cancer, other cancers and chronic diseases, such as heart disease, and their correlation to tobacco use.

#### **Objective LU-4.1**

Support stakeholders' efforts to educate New Jersey residents about lung cancer and other cancers and diseases and the correlation to tobacco use.

#### **Strategies**

##### **LU-4.1.1**

Partner with the NJDOH and community agencies to raise awareness about the harmful effects of indoor and outdoor secondhand smoke by target populations.

##### **LU-4.1.2**

Collaborate with the Regional Chronic Disease Coalitions and other community-based organizations to disseminate educational materials.

##### **LU-4.1.3**

Partner with stakeholders to educate and advocate for a policy dialogue regarding new tobacco products, such as electronic cigarettes.



### **GOAL LU-5**

To reduce the risk of lung cancer due to environmental exposure.

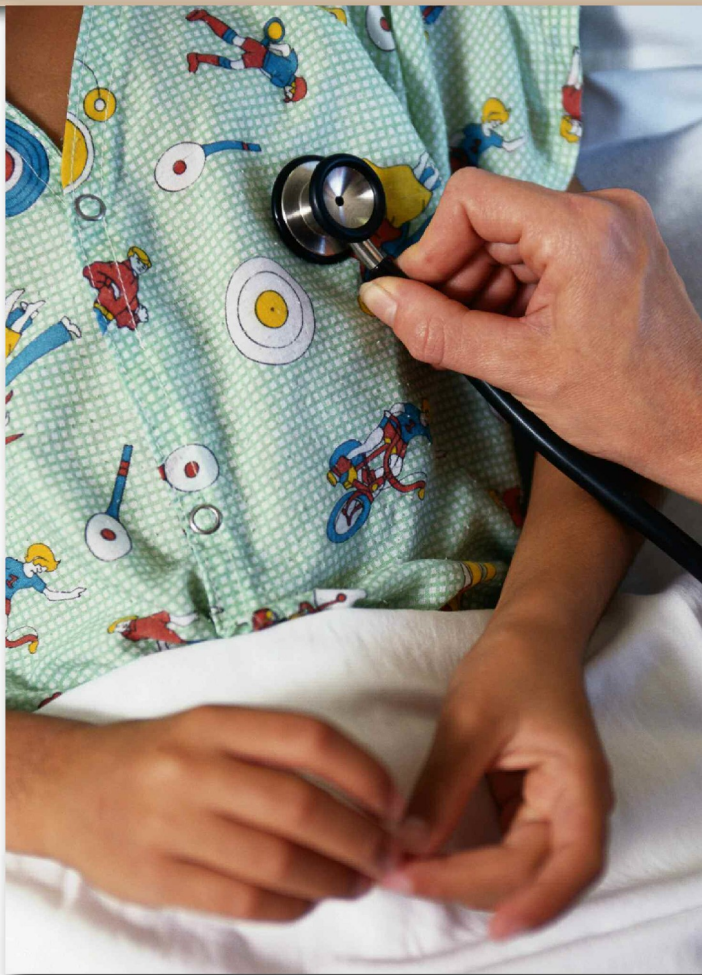
#### **Objective LU-5.1**

To increase radon awareness and testing in New Jersey homes to reduce environmental exposure.

#### **Strategy**

##### **LU-5.1.1**

Partner with the New Jersey Department of Environmental Protection (NJDEP), community agencies and the general public to raise awareness about radon testing and mitigation in homes, particularly new ones.





## CHAPTER 9 Melanoma



CHAPTER 9. Melanoma

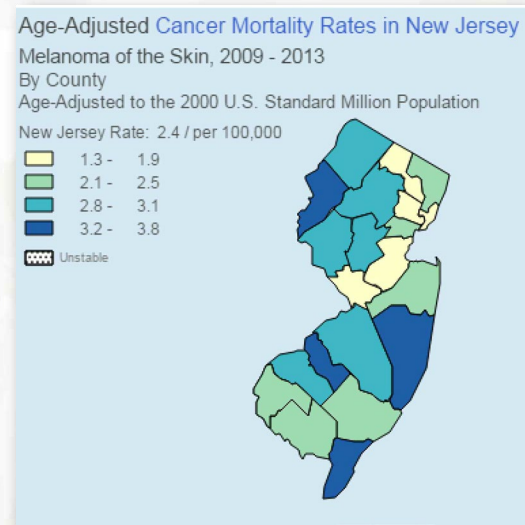
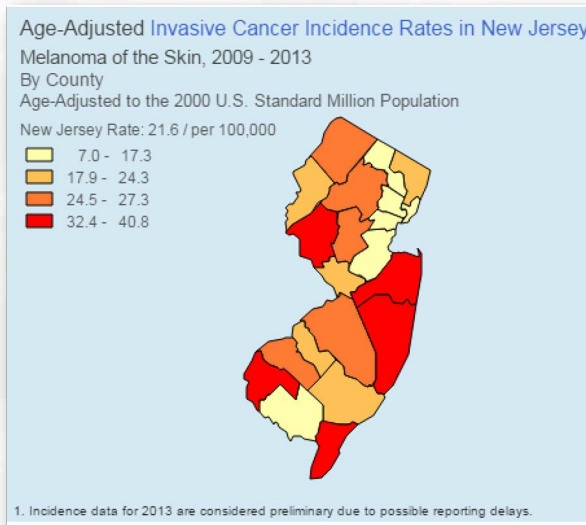
**MELANOMA CANCER FACTS IN NEW JERSEY<sup>1,89</sup>**

**Estimates**

- 23,550 people (11,590 men, 11,960 women) were living with melanoma cancer in New Jersey (2013).<sup>3</sup>

- 92% survived 5 years after diagnosis (2002-2006).<sup>3</sup>
- 2.1% of the US population will be diagnosed with melanoma cancer during their lifetime, based on 2011-2013 data.<sup>89</sup>

**Figure 9**



Source: New Jersey State Cancer Registry

County-level measures can mask local disparities when counties contain large heterogeneous populations.

**Table 21: MELANOMA (INVASIVE ONLY)**

New Jersey Melanoma Cancer Average Annual Cases (Incidence) and Deaths (Mortality) Age-Adjusted Rates per 100,000 by Gender by Race: 2009-2013 <sup>3</sup>								
Cases (Incidence)				Race/Ethnicity	Deaths (Mortality)			
Men		Women			Men		Women	
NJ	US	NJ	US		NJ	US	NJ	US
28.2	28.5	17.1	16.9	All Races	3.6	4.1	1.5	1.7
32.8	33.5	20.6	20.4	White	4.2	4.6	1.8	2.0
0.9	1.1	1.0	1.0	Black	0.3	0.5	--	0.4
4.4	4.8	4.0	4.4	Hispanic*	0.7	1.0	0.4	0.6
1.4	1.6	1.2	1.1	Asian and Pacific Islander	--	0.4	--	0.3

\* Counts and rates are suppressed when fewer than 5 cases to ensure confidentiality and statistical reliability.

\*Hispanic may be of any race. Therefore, the categories of race and ethnicity are not mutually exclusive.  
-- rate not displayed due to fewer than 10 cases



Table 22

### Healthy NJ 2020 Target

- Reduce the death rate due to melanoma cancer to 2.4 per 100,000 population.
- Reduce the proportion of adults aged 18 years and older who report sunburn.

Cutaneous melanoma (melanoma skin cancer) is a serious threat in New Jersey, in particular, where the number of new melanoma cases is the eleventh highest in the nation.<sup>45</sup> Exposure to solar ultraviolet radiation (UVR) is well established as a major risk factor for melanoma.<sup>90,91,92</sup> New Jersey has a very active coastal community where tourists visit the beaches and other outdoor attractions every summer and seasonal workers are employed, many of whom are exposed to UVR from the sun. In addition, increasing evidence has shown that artificial UVR exposure, such as that experienced in tanning beds and booths, significantly increases the risk of developing melanoma and other skin cancers.<sup>93,94</sup> The indoor tanning industry is a large business - its annual revenue was estimated at \$2 billion in 2016.<sup>95</sup> Every day, over 1 million people are exposed to UVR in tanning salons throughout the US. The most frequent users of indoor UVR tanning are white adolescent girls.<sup>96</sup> Other risk factors for melanoma include genetics, skin coloring, geographic location of residence, sunburn history and melanocytic nevi (moles).<sup>90,91</sup> The number of new cases and death rates for New Jersey white men and women are significantly higher than for other races and ethnicities. (See Table 21.)

To reduce the melanoma cancer burden, the Melanoma Workgroup and the Regional Chronic Disease Coalitions have achieved multiple

successes in the implementation of the 2008 - 2012 Plan. Their major efforts, described below, include Choose Your Cover, the CDC Skin Cancer Project, “Skin Cancer Reduction-Early Education Network” (SCREEN), Train the Trainer, support of Tanning Salon Regulation, and numerous coalition-sponsored events.

Choose Your Cover (CYC), the skin cancer screening and health education initiative, was launched in 2008 at three beaches in Ocean County. Beachgoers were offered free skin cancer screening and education. This initial effort impacted nearly 600 people with an estimated 6,500 free sunscreen samples and skin cancer prevention educational materials distributed. CYC is now a statewide New Jersey initiative providing screening and education not only at the beach, but other outdoor venues as well. Over 6,600 people were screened during the second plan. This initiative has been recognized by the CDC as a success story for cancer prevention and by the Agency for Healthcare Research and Quality (AHRQ) as an innovative service.

First funded in 2007 by the CDC, the “Skin Cancer Reduction-Early Education Network” (SCREEN) program was successfully conducted through 2012, culminating the five-year grant cycle. The aims of the project were to reduce the incidence of skin cancer in New Jersey by improving sun safety knowledge and behaviors,

## **CHAPTER 9. Melanoma**

and increasing sun safety policy implementation and environmental changes, such as available shaded areas. The program was implemented in the seven New Jersey counties that had the highest melanoma incidence rates based on 1999-2003 data. Due to the evidence-based success of this project, the SCREEN program is currently being used in many communities in the following states besides New Jersey: New York, Iowa, Pennsylvania, Colorado and California.

Train the Trainer, a program for skin protection and cancer prevention, has targeted numerous educational groups, especially school nurses. Trainings have been held statewide and include Bergen, Essex, Hudson and Passaic Counties. In 2008 and 2009, an estimated 53,000 students and staff were impacted.

Support of tanning salon regulations has also been the focus of the Workgroup and Regional Chronic Disease Coalitions who collaborated with the Advocacy Ad-Hoc Committee. Their combined effort resulted in the passage of the Teen Indoor Tanning Ban.

To decrease the incidence and mortality of melanoma in New Jersey, in this Plan, the Melanoma Workgroup will continue to concentrate on their successful education, screening and policy initiatives that emphasize prevention and early detection. The fact that melanoma is a life-threatening disease must continue to be communicated effectively to the public and healthcare professionals, in order to increase the proportion of melanomas diagnosed in the early stages when the disease is most treatable. The Workgroup recommends continued implementation of awareness campaigns that target education, prevention, early diagnosis and treatment and are provided in schools, worksites

and community settings. Workgroup members also recommend disseminating information to patients and healthcare providers about new and emerging research about clinical trials, technology and resources.

Reducing the public's exposure to natural and artificial UVR is an important step in reducing the disease burden of melanoma. Educating the public about melanoma prevention and early detection, including the risks of melanoma and other skin cancers associated with tanning beds and other artificial UVR exposure, as well as to outdoor UVR, is a priority. Cutaneous melanoma prevention begins with avoidance of exposure to the sun, especially during midday. Those who do not avoid the sun should limit direct sun exposure by wearing broad-brimmed hats, long-sleeved shirts, pants, sun-resistant fabrics, and sunglasses and using and reapplying sunscreen. Further, given the risk of melanoma and other skin cancers associated with indoor UVR exposure, no one should use tanning beds and booths. Schools, worksites and community settings present ideal venues for educating the public about issues surrounding melanoma prevention and detection and fostering policy changes. The Melanoma Workgroup recommends that educational initiatives be implemented in all three settings.

To that end, New Jersey school districts must continue to be committed to the promotion of comprehensive school health education in the form of Kindergarten through 12th grade health instruction that is planned, documented, sequential, and age-appropriate. Awareness of the increasing rate of melanoma incidence must be presented to school health educators to impress upon them the seriousness of the problem in our state. Sun-safe community promotion can augment existing sun-safe messages, if present, or



encourage the school administration to review existing instruction and policies relating to sun safety.

Community education efforts include spreading awareness of the damaging effects of natural and artificial UVR, the importance of practicing sun-safe behaviors, and the need to perform self-screening and how to recognize potentially malignant changes. The most common public awareness message is that of the “ABCDE’s of Melanoma,”<sup>97</sup> which describes suspicious lesions as those that are **A**symmetrical, have an irregular **B**order, have **C**olor variegation, have a **D**iameter greater than 6 millimeters, and **E**volve or change over time.

The Melanoma Workgroup also recommends information on the evolution of available treatment, including clinical trials, be continually updated for medical professionals and patients. The Melanoma Workgroup will closely monitor new and emerging research in melanoma and partner with organizations to ensure that both patients and healthcare providers remain up-to-date on the most currently available technologies and resources.

Based upon recommendations by the Melanoma Workgroup, the following are the proposed goals, objectives and strategies.

### **GOAL ME-1**

To decrease the number of melanomas diagnosed in late stages and increase the percent of melanomas being diagnosed in early stages.

#### **Objective ME-1.1**

To develop an alliance with organizations to develop sun-safety awareness campaigns promoting public awareness and knowledge.

#### **Strategy**

##### **ME-1.1.1**

Develop and disseminate educational materials and programs in collaboration with other organizations.

### **GOAL ME-2**

To decrease the exposure of New Jersey residents to UVR from the use of tanning beds and booths.

#### **Objective ME-2.1**

To increase awareness among the public of the risk of melanoma associated with UVR exposure from the use of tanning beds and booths.

#### **Strategy**

##### **ME-2.1.1**

Partner with community organizations to develop and disseminate an awareness campaign emphasizing the risks associated with UVR exposure from the use of tanning beds and booths.



## CHAPTER 9. Melanoma

### GOAL ME-3

To increase the practice of prevention behaviors among youth by instructing students in all New Jersey public school districts on prevention, detection, and screening for melanoma and other skin cancers.

#### Objective ME-3.1

To support age-appropriate curriculum of all public schools, and enhance where necessary, instruction on prevention, detection, and screening for melanoma and other skin cancers.

#### Strategies

##### ME-3.1.1

Partner with the New Jersey Department of Education to promote education through core curriculum standards.

##### ME-3.1.2

Support online training for representatives from school districts about melanoma and skin cancer prevention, detection, and screening.

##### ME-3.1.3

Support professional organizations training by development of continuing education credits relating to skin cancer.

##### ME-3.1.4

Support partnerships between healthcare organizations to train appropriate professionals in school districts on proven skin cancer prevention programs, such as Sun-Safe Communities.

### GOAL ME-4

To promote worksite education by employers to employees on prevention, detection, and screening for melanoma and other skin cancers.

### GOAL ME-5

To educate the community on prevention, detection, and screening for melanoma and other skin cancers.

#### Objective ME-5.1

To provide public health educational opportunities relating to skin cancer to the residents of New Jersey at the local level.

#### Strategies

##### ME-5.1.1

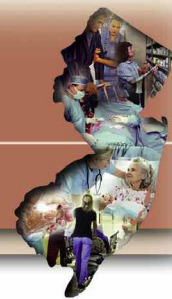
Work with stakeholders to support their efforts to implement and evaluate community public health education programs on prevention, detection, and screening for melanoma and other skin cancers.

##### ME-5.1.2

Use and evaluate public service announcements, social and traditional media campaigns to educate the public on prevention, detection, and screening for melanoma and other skin cancers.

##### ME-5.1.3

Collaborate with local government and other agencies regarding sun-safety policies, such as structural protection and sun-safe park certification, for the prevention of melanoma and other skin cancers.



### **GOAL ME-6**

To ensure that New Jersey residents and healthcare providers remain up-to-date on the most current available melanoma technologies and resources.

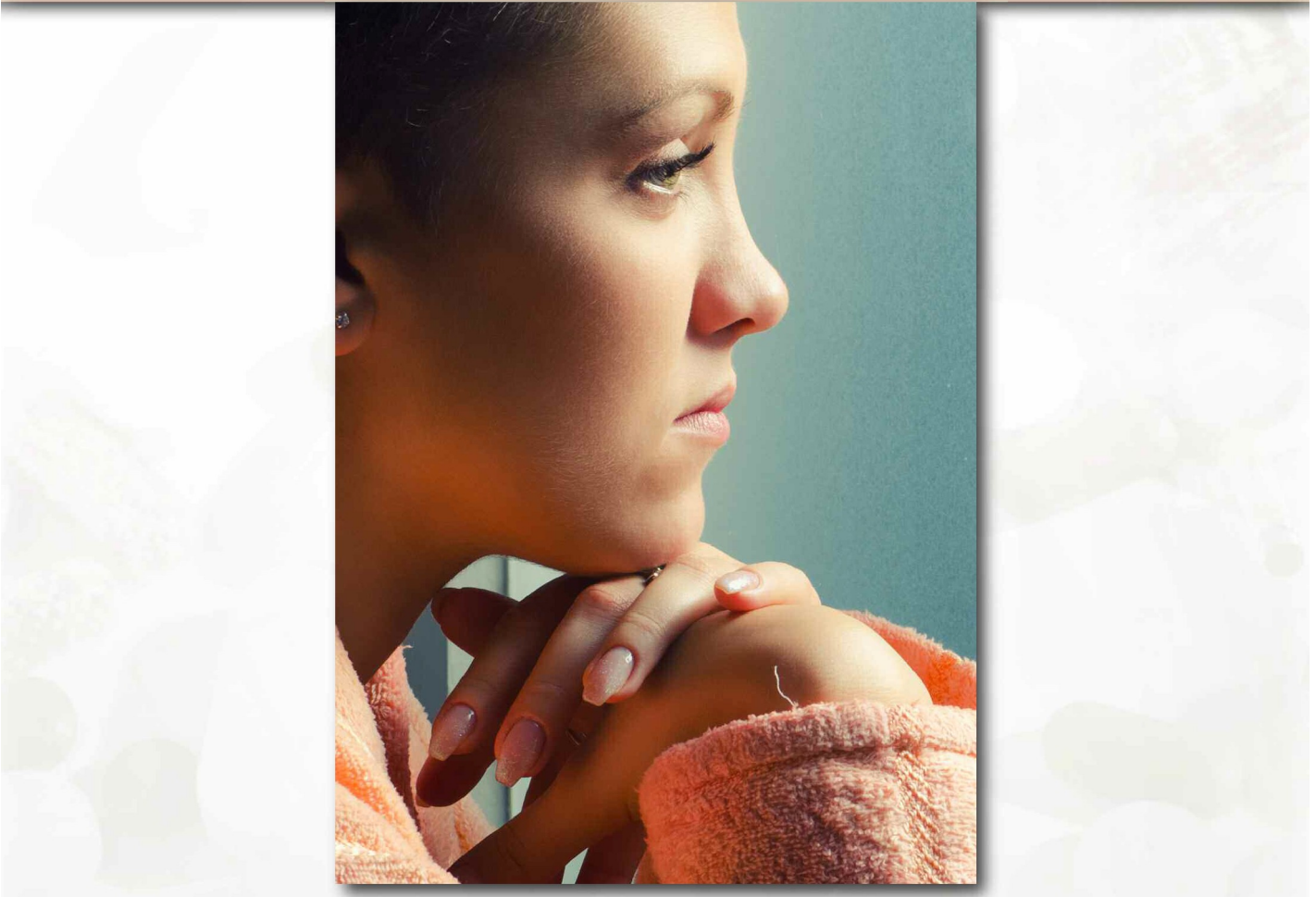
#### **Objective ME-6.1**

To continue to monitor and disseminate current information on advances in melanoma prevention, screening, diagnosis, and treatment.

### **Strategy**

#### **ME-6.1.1**

Work with stakeholders to disseminate, as they become available, evidence-based advances to healthcare providers through Continuing Medical Education (CME) offerings.





**CHAPTER 10**  
**Oral and**  
**Oropharyngeal**  
**Cancer**



CHAPTER 10. Oral and Oropharyngeal Cancer

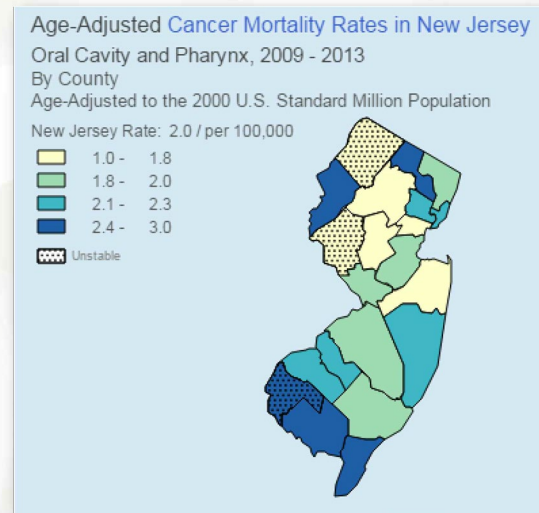
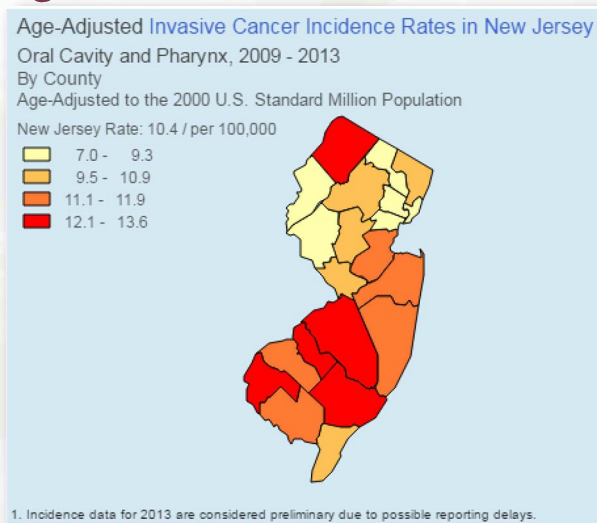
**ORAL CANCER FACTS IN NEW JERSEY<sup>3,98</sup>**

**Estimates**

- 7,743 people (4,997 men, 2,746 women) were living with oral cancer in New Jersey (2013).<sup>3</sup>

- 59.1% survived 5 years after diagnosis (2002-2006).<sup>3</sup>
- 1.1% of the US population will be diagnosed with oral cancer during their lifetime, as per the 2011-2013 data.<sup>98</sup>

**Figure 10**



Source: New Jersey State Cancer Registry  
County-level measures can mask local disparities when counties contain large heterogeneous populations.

**Table 23: ORAL AND OROPHARYNGEAL CANCER (INVASIVE ONLY)**

New Jersey Oral and Oropharyngeal Cancer Average Annual Cases (Incidence) and Deaths (Mortality) Age-Adjusted Rates per 100,000 by Gender by Race: 2009-2013 <sup>3</sup>								
Cases (Incidence)				Race/Ethnicity	Deaths (Mortality)			
Men		Women			Men		Women	
NJ	US	NJ	US		NJ	US	NJ	US
15.5	16.7	6.2	6.2	All Races	3.0	3.8	1.2	1.3
16.0	17.4	6.4	6.4	White	2.9	3.7	1.2	1.3
12.1	14.4	4.8	5.2	Black	4.4	5.0	1.2	1.3
1.1	10.0	4.7	4.0	Hispanic*	1.7	2.4	0.7	0.8
12.5	11.1	4.4	4.9	Asian and Pacific Islander	2.8	2.9	0.8	1.2

\*Hispanic may be of any race. Therefore, the categories of race and ethnicity are not mutually exclusive.



Table 24

### Healthy NJ 2020 Target

- Reduce the death rate due to oropharyngeal cancer to 2.0 per 100,000 population.
- Increase the proportion of oral and oropharyngeal cancers detected at the earliest stage to 36.9%.

The Oral and Oropharyngeal Cancer Workgroup defined public awareness and education as the most effective mechanisms for reducing morbidity and mortality from oral and oropharyngeal cancer.<sup>99,100</sup> More than 90% are squamous cell carcinoma, including cancer of the lip, tongue, floor of the mouth, palate, gingiva and alveolar mucosa, buccal mucosa, and oropharynx, as well as the pharyngeal tonsils and salivary glands. The most common risk factors are related to lifestyle behaviors that include long-term tobacco use and excessive alcohol consumption,<sup>101,102</sup> the use of the areca nut, popular in the Asian population,<sup>103</sup> as well as infection with human papillomavirus (HPV), particularly genotype.<sup>16,104</sup> Focusing on prevention and early detection is essential. This is especially true for New Jersey white men who are more likely to be affected and black men who are significantly more likely to die from oral cancer than men of other races. (See Table 23.)

The Oral and Oropharyngeal Cancer Workgroup and the Regional Chronic Disease Coalitions have experienced successes in the implementation of the 2008-2012 Plan. These efforts include a multi-county screening project that engaged Bergen, Morris, Passaic, Hudson, Union, Burlington, Hunterdon, Middlesex, Monmouth and Sussex Counties and three Federally Qualified Health Centers impacting the lives of nearly 4,500 people. The Workgroup and Coalitions have

continued to stress the importance both of oral cancer screening and training of dental health providers. As a result, 170 providers were trained at several sessions around New Jersey.

In 2010, efforts by the Workgroup resulted in the passage of the Joint Resolution naming April as “Oral and Oropharyngeal Cancer Awareness Month.”

The Oral and Oropharyngeal Cancer Workgroup proposes to implement this Plan by enhancing initiatives that are already underway in New Jersey. Existing efforts enhance public awareness about the behaviors that places one at increased risk for oral and oropharyngeal cancer and increase screening opportunities. Additionally, the Workgroup will focus on educating people about the signs and symptoms of oral and oropharyngeal cancer. The Workgroup recommends the enhancement of professional development among those who are in medical and dental schools in New Jersey and practicing clinicians.

Building upon current efforts, first the Workgroup suggests concentrating education and awareness efforts on the population at highest risk.

Targeting high-risk segments of the population for educational programs can be accomplished by first determining areas of the state where pockets of at-risk individuals reside and then reviewing and improving existing educational materials for

## **CHAPTER 10. Oral and Oropharyngeal Cancer**

use with this population. Secondly, the Oral and Oropharyngeal Cancer Workgroup proposes continuing to work on strengthening laws and regulations concerning tobacco and alcohol, the two primary risk factors for oral and oropharyngeal cancer.

By improving the knowledge of the general public about the risk factors, signs, and symptoms of oral and oropharyngeal cancer, all populations will be positively influenced. It is nevertheless, critical that education efforts be designed to reach those identified as least likely to receive oral and oropharyngeal cancer examinations.

Since oral and oropharyngeal cancer is one of the most preventable and treatable cancers, improving access and resources is essential to decreasing morbidity and mortality from oral and oropharyngeal cancer. The Oral and Oropharyngeal Cancer Workgroup, the Rutgers School of Dental Medicine, and the Oral Cancer Consortium must continue to partner to begin centralizing the oral and oropharyngeal cancer efforts within New Jersey.

Of the many obstacles to early detection of oral and oropharyngeal cancer, one that can be overcome is the inadequacy of education and training among healthcare providers. The Oral and Oropharyngeal Cancer Workgroup offers three goals by which the involvement of medical and dental providers in the prevention and early detection of oral and oropharyngeal cancer can be upgraded to have a significant impact on mortality and quality of life for survivors. First, it is proposed that professional development about oral

and oropharyngeal cancer begin with young professionals in medical and dental schools in New Jersey. Second, practicing clinicians should be educated and re-educated about comprehensive oral and oropharyngeal cancer examinations through continuing medical education classes. Third, to ensure that practicing clinicians are receiving training for oral and oropharyngeal cancer, the Workgroup recommends that this type of professional education be added to the licensure requirements.

The Workgroup also encourages and supports research on the epidemiology of oral and oropharyngeal cancer; the impact of early detection and intervention on oral and oropharyngeal cancer; the pathogenesis of progression or regression of dysplastic lesions in oral and oropharyngeal cancer; chemoprevention of oral and oropharyngeal cancer; and the development of improved technologies for identifying and characterizing oral and oropharyngeal cancer.

Oral and Oropharyngeal cancer incidence and mortality are declining, but long-term comorbidities and poor quality of life after treatment is a major issue that is under-studied. The long-term effects of the cancer seem to be more of the burden than the incidence or mortality.

The following are goals, objectives, and strategies to support future efforts in addressing oral and oropharyngeal cancer in New Jersey.



### GOAL OR-1

To heighten public awareness and knowledge of oral and oropharyngeal cancer and the need for early detection in New Jersey.

#### Objective OR-1.1

To increase direct public education to populations at high risk for oral and oropharyngeal cancer.

#### Strategies

##### OR-1.1.1

Collaborate with the Oral Cancer Consortium, Rutgers School of Dental Medicine and other agencies, to coordinate and support national, state, and local oral and oropharyngeal cancer awareness and education campaigns.

##### OR-1.1.2

Work with the American Dental Association, the New Jersey Dental Association and other professional groups and associations in their endeavors to create a media campaign to increase awareness of oral and oropharyngeal cancer in the general public.

##### OR-1.1.3

Partner with the addictions, HIV and STD treatment programs to increase awareness of oral and oropharyngeal cancer risk factors, i.e., tobacco, alcohol, other drugs, and exposure to human papillomavirus (HPV), among high-risk populations.

##### OR-1.1.4

Partner with other stakeholders to increase awareness regarding the relationship of oral and oropharyngeal cancer to HPV.

##### OR-1.1.5

Increase awareness of oral and oropharyngeal cancer risk regarding areca nut among target populations.

### GOAL OR-2

To increase access to oral and oropharyngeal cancer screening and the ability to reach all segments of the population.

#### Objective OR-2.1

To increase community outreach promoting oral and oropharyngeal cancer screening.

#### Strategies

##### OR-2.1.1

Partner with the Oral Cancer Consortium, Rutgers School of Dental Medicine and other organizations to improve screenings through collaboration.

##### OR-2.1.2

Integrate oral and oropharyngeal cancer examinations into existing outreach programs with appropriately equipped facilities to increase screening without creating substantial cost, by using the following venues: mobile units; outpatient facilities run by medical centers; long-term care facilities and assisted-living facilities; oral and oropharyngeal cancer screenings in major urban hubs; remote and underserved areas; at meetings for those with addictions; and at meetings for other high-risk groups.



## **CHAPTER 10. Oral and Oropharyngeal Cancer**

### **GOAL OR-3**

To expand involvement of medical and dental professionals in the prevention and early detection of oral and oropharyngeal cancer by increasing the current level of awareness, education, training, and motivation among these healthcare providers.

#### **Objective OR-3.1**

To ensure New Jersey's practicing clinicians' knowledge and awareness of oral and oropharyngeal cancer remains current.

### **Strategies**

#### **OR-3.1.1**

Coordinate existing and newly created continuing education programs for medical and dental professionals on the primary prevention and early detection of oral and oropharyngeal cancer.

#### **OR-3.1.2**

Recommend to the New Jersey Board of Dentistry that oral and oropharyngeal cancer education become part of the licensure requirements.



## **CHAPTER 11**

### **Prostate Cancer**



CHAPTER 11. Prostate Cancer

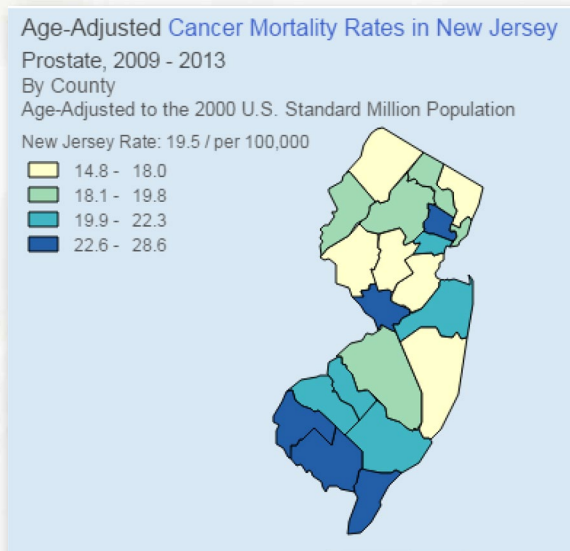
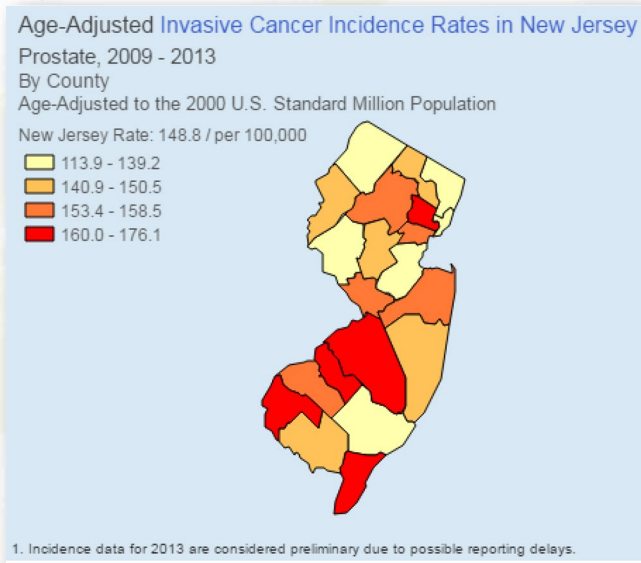
PROSTATE CANCER FACTS IN NEW JERSEY<sup>1,105</sup>

Estimates

- 86,728 men were living with prostate cancer in New Jersey (2013).<sup>3</sup>

- 100.0% survived 5 years after diagnosis (2002-2006).<sup>1</sup>
- 12.9% of US men will be diagnosed with prostate cancer during their lifetime.<sup>105</sup>

Figure 11



Source: New Jersey State Cancer Registry

County-level measures can mask local disparities when counties contain large heterogeneous populations.

Table 25: PROSTATE CANCER (INVASIVE ONLY)

New Jersey Prostate Cancer Average Annual Cases (Incidence) and Deaths (Mortality) Age-Adjusted Rates per 100,000 by Gender by Race: 2009-2013 <sup>3</sup>				
Cases (Incidence)		Race/Ethnicity	Deaths (Mortality)	
Men			Men	
NJ	US		NJ	US
148.8	129.4	All Races	19.5	20.7
140.3	121.9	White	17.7	19.1
213.4	203.5	Black	44.4	44.2
139.3	106.8	Hispanic*	14.1	17.1
68.7	68.9	Asian and Pacific Islander	6.3	9.1

\*Hispanic may be of any race. Therefore, the categories of race and ethnicity are not mutually exclusive.



Table 26

### Healthy NJ 2020 Target

- **Reduce the death rate due to prostate cancer to 21.2 per 100,000 population.**
- **Increase the proportion of men aged 40 and over whose doctor, nurse, or other health professional have ever talked to them about the advantages of the prostate-specific antigen (PSA test to screen for prostate cancer). (Proportion to be determined.)**

**E**ducation and early detection represent the two prongs of the Prostate Cancer Workgroup’s approach to addressing prostate cancer in New Jersey. The public must be educated on the major risk factors for prostate cancer (i.e., older age, family history, black race),<sup>106</sup> the screening methods, and the options for treatment if cancer is found. Each year, New Jersey black men are significantly more likely to be diagnosed with prostate cancer and die from prostate cancer when compared to other races and ethnicities. (See Table 25.) The public should also be educated about the pros and cons of prostate cancer screening to facilitate informed decision-making.

The Prostate Cancer Workgroup and the Regional Chronic Disease Coalitions have successfully implemented the 2008-2012 Plan with efforts such as “Barbershop.” The Barbershop Initiative™, a trademarked national program created by The Prostate Net (TPN), is a national patient education and advocacy organization founded by Virgil H. Simons. Funded by the CDC, implementation of an enhanced version of The Prostate Net’s Barbershop Initiative model in New Jersey began in September 2007 and continued with additional funding through June

30, 2012. The intent of the program had been to access medically underserved minority men in New Jersey through barbershops, to increase their awareness and knowledge about prostate cancer and its detection. Barbers who, over time, have served as respected emissaries in their communities, were trained to serve as lay health educators to then train their patrons. This project impacted all 21 counties in New Jersey. Success of this program is evidenced by interviews accomplished with twenty barbershop owners who spoke positively about the program and its value to their patrons, as well as themselves. Of the shop owners interviewed, 94.7% had sought screening and/or other healthcare as a result of participating in the initiative.

The Workgroup and Coalitions also continued their relationship building with the Mayor’s Wellness Campaign in an initiative to provide presentations to local officials. To date, 260 mayors have committed to prostate cancer education and early detection awareness efforts.

During the implementation of this Plan, the Workgroup recommends that public and professional education about prostate cancer continue to be a focus that will improve

## **CHAPTER 11. Prostate Cancer**

healthcare provider recommendations, increase access to screenings, and continue informing New Jersey residents about advances in technology, resources, clinical trials and the current state of prostate cancer research.

Education about prostate cancer screenings is first and foremost. The CDC does not recommend prostate cancer screening, but does recommend that men be provided with up-to-date information about screening, including the potential harms and benefits. Several organizations including the American Cancer Society, the American Urological Association, the National Cancer Institute, and the US Preventive Services Task Force recommend offering information about the potential harms and benefits of screening in order that men, their healthcare providers, and their families can make informed decisions about screening.<sup>106</sup>

Educational and community-based programs can play an integral role in contributing to the improvement of health outcomes related to prostate cancer, specifically in high-risk populations. These programs, when developed to reach those outside of traditional healthcare settings, can be critical to enhancing health promotion and quality of life for New Jersey residents. Interventions that will elicit and ensure participation from populations at high risk for prostate cancer should be a high priority.

For all of these reasons, it is important to educate the public and healthcare professionals about the issues concerning prostate cancer. Then, individuals should be able to make informed

decisions about their prostate health in consultation with their healthcare providers and families.

Providing education is the first step to increasing the number of New Jersey residents accessing prostate cancer screening. Increasing knowledge, improving healthcare provider recommendations, and creating access to affordable cancer screening tests are important ways to lower barriers to cancer screening.

Prostate cancer is characterized by a wide range of treatment options depending on a patient's age, overall health, status of the cancer, and personal choice. In addition, knowledge about the disease, its detection, and its treatment is constantly evolving. Healthcare providers, particularly primary care, may find it difficult to remain apprised of new developments and subsequently advise or treat individual patients in an efficient and comprehensive manner.

To ensure that both patients and healthcare providers remain up-to-date on currently available technologies, resources, research and clinical trials, the Prostate Cancer Workgroup will closely monitor new and emerging research in prostate cancer and partner with organizations.

The following goals, objectives and strategies are recommended to continue addressing prostate cancer in New Jersey.



### GOAL PR-1

To promote a public health message regarding the benefits and risks of prostate cancer prevention, screening and early detection, symptoms, follow-up for normal and abnormal screening and treatment.

#### Objective PR-1.1

To increase public knowledge among all people about the risk factors associated with prostate cancer, the value of prevention as scientific knowledge is accrued, and the benefits of early detection, especially for men aged 40 years and older who are at high risk, men of African descent, and men with a family history of prostate cancer.

#### Strategies

##### PR-1.1.1

Promote evidence-based educational programs that comprehensively describe prostate cancer; symptoms; screening; the benefits and risks involved in screening; follow-up; and treatment for all men, including participation in clinical trials.

##### PR-1.1.2

Promote evidence-based educational programs that describe the issues related to barriers, myths, access, and funding for prostate cancer screening, follow-up, and treatment for high-risk individuals throughout the age continuum, especially men of African descent. Promote the provision of evidence-based educational programs by partnering with national, state local, and community-based organizations.

### GOAL PR-2

To improve education to clients/patients and their significant others about prostate cancer screening, risk factors, symptoms, follow-up, and treatment.

#### Objective PR-2.1

To increase knowledge among men and women regarding the need for men to annually discuss prostate cancer screening, using nationally recognized screening guidelines, with a healthcare professional.

#### Strategy

##### PR-2.1.1

Promote utilization of educational materials and resources that provide information on prostate health and screening.

### GOAL PR-3

To increase access to prostate cancer services for all New Jersey men, encompassing education, screening, and treatment, including palliative care.

#### Objective PR-3.1

To increase the number of opportunities, e.g., prostate cancer education, screenings, support groups, etc., made available by healthcare practitioners and advocates for targeted populations.

#### Strategy

##### PR-3.1.1

Partner with community leaders and community-based organizations, including

## **CHAPTER 11. Prostate Cancer**

faith-based organizations, on prostate cancer education and screening programs to create incentives that attract targeted populations.

### **Objective PR-3.2**

To ensure that all men diagnosed with prostate cancer through the NJCEED program have access to follow-up and treatment services.

#### **Strategy**

##### **PR-3.2.1**

Work with the NJCEED program to ensure treatment is available for all clients/patients diagnosed with prostate cancer.

### **GOAL PR-4**

To ensure everyone including the public and healthcare providers remain up-to-date on currently available prostate cancer technologies and resources.

### **Objective PR-4.1**

To continue to monitor and disseminate current advances in prostate cancer prevention, screening, diagnosis, and treatment.

#### **Strategies**

##### **PR-4.1.1**

Work with healthcare organizations to disseminate, as they become available, evidence-based advances to healthcare providers through CME and other continuing education offerings.

##### **PR-4.1.2**

Monitor current research about prostate cancer prevention, i.e., 5-alpha reductase inhibitors and other modalities, educating healthcare providers and the public regarding appropriate use as recommended by professional organizations based on evidence.



**Appendix A:  
Index of Objectives  
by Topic Area**





Appendix A

INDEX OF OBJECTIVES BY TOPIC AREA

**Clinical Trials/Research:** Ao-2.2, cc-1.1, ME-2.2 PR-I.I, PR-4.1

**Community Clinical Linkages:** AD-3.t, BR-1.2, BR-2.2, BR-2.3, cc-1.1, cv-s.1, ME-s.1, OR-I.I, OR-2.1, PR-3.t

**Community Health Education:** NP-1.2, NP-1.3, PA-I.I, BR-1.1, BR-2.1, BR-2.2, cc-2.1, cc-2.2, co-1.2, co-1.3, GY-1.1, GY-2.1, GY-4.3, GY-5.1, LU-A.A, LU-1.2, LU-2.2, LU-4.1, ME-1.1, ME-2.1, ME-5.1, ORI.I, OR-2.1, PR-I.I, PR-2.1, PR-3.1

**Diagnosis:** BR-2.2, ME-1.1, ORI.1, PR-3.1

**Disparities:** AD-2.1, AD-3.1, BR-1.1, BR-2.1, BR-2.2, CO-1.1, CO-2.1, GY-1.1, GY-2.1, GY-4.3, LU-1.1, LU-2.1, OR2.1, PR-1.1, PR-3.2

**Early Detection:** AD-2.1, BR-1.1, BR-2.1, BR-2.2, BR-2.3, cv-1.1, cv-s.2, LU-4.t, ME-4.1, OR-1.1, PR-3.1

**End-of-Life:** PA-1.1, PA-2.1, PA-3.t

**Environmental Strategies:** NP-1.1, NP-1.2, NP-1.3, NP-t.4, PA-I.I, BR-1.1, BR-2.2, co-1.1, GV-4.1, LU-I.I, LU-4.t, ME-4.1, ME-5.1, ORI.1

**Epidemiology, Surveillance and Evaluation:** BR-1.1, Ev-1.1

**Health System Interventions:** Ao-2.2, AD-3.1, PA-1.1, PA-2.2, co-2.2, cv-s.2, OR-I.I

**Media:** BR-2.1, GY-2.1, ME-s.1, oR-1.1

**Palliation:** PA-I.I, PR-3.t

**Policy/Advocacy:** AD-1.1, AD-1.2, AD-2.1, AD-2.2, AD-3.t, NP-t.4, PA-2.1, BR-2.2, cc-2.2, co-2.1, GY-4.t, LU-1.1, LU-4.1, ME-2.2, OR-1.1, PR-3.2

**Prevention:** AD-2.2, AD-3.1, NP-1.2, NP-1.3, BR-1.1, BR-2.1, BR-2.2, BR2.3, CO-1.1, GY-4.1, GY-4.2, LU-2.1, ME-2.1, ME-3.1, ME-4.1, PR-4

**Providers:** NP-1.4, PA-1.1, PA-2.1, PA-3.1, BR-1.1, BR-2.1, BR-2.2, cc-1.1, cc-2.1, co-1.3, GY-3.1, GY-4.2, cv-s.2, LU-1.2, LU-2.1, LU-3.1, ME-2.1, ME-6.1, OR-1.1, PR-3.1, PR-4.1

**Quality of Life:** PA-1.1

**Schools/Youth:** NP-1.1, co-1.1, cv-2.1, cv-4.t, ME-3.t

**Survivorship:** PA-1.1, cc-2.1, cc-2.2, PR-3.t

**Treatment:** BR-2.2, GY-1.1, GY-3.1, LU-1.1, LU-2.1, PR-3.2

**Worksites/Workforce:** ME-4.t





## **Appendix B: Participants**

**Appendix B: Participants**

<b>Participant</b>	<b>Title/Task Force</b>	<b>Organization</b>
<b>Candido Africa III, MD, CPM</b>	Program Data Manager, Evaluation Committee Gynecologic Cancer Workgroup Prostate Cancer Workgroup, Co-Chair	NJCEED, Community Health and Wellness Unit, Division of Community Health Services, New Jersey Department of Health
<b>Pamela Agovino MPH</b>	Research Scientist	New Jersey Department of Health's Cancer Environmental & Occupational Health Surveillance Program's Cancer Surveillance Unit
<b>Cynthia Ayres RN, PhD</b>	Assistant Professor, Evaluation Committee	Rutgers, the State University of New Jersey
<b>Angela Bailey MSW</b>	Chronic Disease Coalition Coordinator Palliative Care Workgroup	Shore Memorial
<b>Elisa Bandera MD, PhD</b>	Professor of Epidemiology Co-Leader, Cancer Prevention and Control Research Program, Advocacy Ad Hoc Committee, Nutrition & Physical Activity Workgroup, Chair	Rutgers School of Public Health, Rutgers Cancer Institute of New Jersey
<b>Cindy Baptista RN</b>	Palliative Care Manager	Moorestown VNA & Hospice
<b>Arnold M. Baskies MD</b>	Surgical Oncologist Task Force Chair; Advocacy Ad Hoc Committee, Evaluation Committee; Melanoma Workgroup Chair	Task Force
<b>Rosalind Berkowitz MD</b>	Physician, Advocacy Ad Hoc Committee Palliative Care Workgroup	
<b>Beverly Brevard</b>	Account Representative Gynecologic Cancer Workgroup	American Cancer Society
<b>Matthew W. Brown</b>	Coordinator, Evaluation Committee	Region 10 Cancer and Chronic Disease Coalition
<b>Stasia Burger MS, CTR</b>	Research Scientist, Lung Cancer Workgroup	New Jersey Department of Health's Cancer Environmental & Occupational Health Surveillance Program's Cancer Surveillance Unit
<b>Emmanuella Cherismé MD, FACOG</b>	Physician Gynecologic Cancer Workgroup	AmmeObstetrics and Gynecology Associates, LLC Amme Community Health and Wellness
<b>Sherri Cirignano MS, RD, LDN, FCHS</b>	Professor Educator/Assistant Nutrition & Physical Activity Workgroup	Rutgers Cooperative Extension of Warren County
<b>Harold Cohen DDS</b>	Professor, Educator, Clinician Advocacy Ad Hoc Committee Oral & Oropharyngeal Workgroup	Rutgers School of Medicine
<b>Keli Coughlin</b>	Executive Director Childhood Cancer Workgroup	Tom Coughlin Jay Fund Foundation

# Addressing the Burden of Cancer in New Jersey

## Appendix B: Participants



<b>Participant</b>	<b>Title/Task Force</b>	<b>Organization</b>
<b>Elliot Coups PhD</b>	Associate Professor, Melanoma Workgroup	Rutgers Cancer Institute of New Jersey
<b>Roslyn Council MSW</b>	Acting Program Management Officer Gynecologic Cancer Workgroup	Office of Rural Health, Division of Community Health Services, New Jersey Department of Health
<b>Teri Cox</b>	Task Force Member, Providers of Cancer Treatment and Support Services	Task Force
<b>Margo Creevy RN, BSN, MSN, AOCN</b>	GI Cancer Nurse Navigator Colorectal Cancer Workgroup	Capital Health Medical Center
<b>Riddhi Desai</b>	Regional Chronic Disease Coalition Grant Assistant	Ocean Monmouth Health Alliance
<b>Linda DiMario RN, MSN, MPH, RPh</b>	Director, Lung Cancer Workgroup	Atlantic Health
<b>Brian Dowd</b>	Senior Leader Advocacy Ad Hoc Committee	LIVESTRONG
<b>Neveen Elkholy DO</b>	Chief Medical Officer Colorectal Cancer Workgroup	Newark Community Health Center
<b>Hillel Ephros DMD, MD</b>	Chairman, Department of Dentistry & Program, Director Oral & Maxillofacial Surgery, Medical Director, The Regional Craniofacial Center, Oral & Oropharyngeal Workgroup, Chair	St. Joseph's Regional Medical Center, St. Joseph's Children's Hospital
<b>Mahnaz Fatahzadeh DMD, MSD</b>	Dentist & Professor Oral Medicine Oral & Oropharyngeal Workgroup	Rutgers School of Dental Medicine, Member & Past Chair NY/NJ Oral Cancer Consortium
<b>Mark C. Fulcomer PhD</b>	Adjunct Associate Professor Evaluation Committee	Department of Family, Community Medicine Rutgers Robert Wood Johnson Medical School, Rutgers School of Public Health, Department of Epidemiology
<b>Kathy Furniss</b>	Breast Cancer Workgroup	
<b>Darlene Gibbon MD</b>	Chief of Gynecologic Oncology Gynecologic Cancer Workgroup	Rutgers Cancer Institute of New Jersey
<b>Aron Gornish MD, FACS</b>	Surgical Oncologist, Melanoma Workgroup	Jersey Shore University Medical Center
<b>Jennifer Griola</b>	Executive Director Breast Cancer Workgroup	Susan G. Komen for the Cure North Jersey
<b>Daniel Guinee</b>	Executive VP, Innovation & Strategy Lung Cancer Workgroup	Advanced Studies in Medicine
<b>Anne Gutos</b>	President, Gynecologic Cancer Workgroup	National Ovarian Cancer Coalition
<b>Kathryn K. Hamilton MA, RDN, CSO, CDN</b>	Ambulatory Oncology Dietician Nutrition & Physical Activity Workgroup	Carol G. Simon Cancer Center, Morristown Medical Center

**Appendix B: Participants**

<b>Participant</b>	<b>Title/Task Force</b>	<b>Organization</b>
<b>Michael B. Harris MD</b>	Director, Childhood Cancer Workgroup	Tomorrow's Children Institute
<b>Debra Harwell</b>	Facilitator, Prostate Cancer Workgroup	New Jersey State Nurses Association (NJSNA)
<b>Ethan Hasbrouck</b>	State Advocacy Director Advocacy Ad Hoc Committee Chair	American Cancer Society
<b>Nancy Healey</b>	Cancer Survivor	Task Force
<b>Andrea Hope EdD, CHES</b>	Assistant Professor Nutrition & Physical Activity Workgroup	Department of Health and Physical Education, Marjorie K. Unterberg School of Nursing & Health Studies, Monmouth University
<b>Janet Horowitz</b>	Executive Director, Melanoma Workgroup	Enright Melanoma Foundation
<b>Tina Jacobs</b>	Director of Community Outreach Breast Cancer Workgroup	Komen North Jersey
<b>Linda Johnson</b>	Task Force Member, Cancer Survivor	Task Force
<b>Father Tom Johnson-Medland</b>	Chief Executive Officer Palliative Care Workgroup	Lighthouse Hospice
<b>Jarrod P. Kaufman, Chair MD, FACS</b>	New Jersey Chair Melanoma Workgroup Co-Chair	Commission on Cancer Research
<b>Edward Kazimir PhD, MBA</b>	President, Lung Cancer Workgroup	OMG Consulting
<b>Kathleen Kelleher APN</b>	NP Breast Surgery, Breast Cancer Workgroup	Chilton Breast Surgery Chilton Medical Center
<b>Jallah Kennedy RN, MPH</b>	Research Assistant Health Evaluation Committee	
<b>Margaret L. (Peg) Knight RN, MEd</b>		
<b>Sara Krüg</b>	Chief Executive Officer Lung Cancer Workgroup	Cancer 101
<b>Dennis John Kuo MD, MS</b>	Pediatric Residency Director, Pediatric Hematology Attending Childhood Cancer Workgroup	St. Joseph's Children's Hospital
<b>David Lederman DMD</b>	Past Task Force Member, Past Chair Oral and Oropharyngeal Workgroup	Task Force
<b>Rachel Lendner</b>	Manager - Tobacco Free for a Healthy NJ Advocacy Ad Hoc Committee, Lung Cancer Workgroup	American Cancer Society
<b>Jean C. LePere</b>	Manager, Network Community Palliative Care Workgroup	Memorial Sloan-Kettering

# Addressing the Burden of Cancer in New Jersey

## Appendix B: Participants



Participant	Title/Task Force	Organization
<b>Ellen Levine LCSW, OSW-C</b>	Program Director Breast Cancer Workgroup	Cancer Support Community, Central Jersey
<b>Debra A. Levinson MPA, FACHE</b>	Task Force Member, Advocacy Ad Hoc Committee, Evaluation Committee Melanoma Workgroup	Task Force
<b>Nancy Librera</b>	Task Force Member, Provider Cancer Treatment Support Services	Task Force
<b>S. Maggie Lopez MA, MS, CSW</b>	Director, Legislative Advocacy & Government Relations, Advocacy Ad Hoc Committee	American Cancer Society
<b>Michael Meddis MPH</b>	Public Health Coordinator Oral & Oropharyngeal Workgroup	Monmouth County Department of Health
<b>Janis Mayer MA</b>	Manager, Lung Cancer Workgroup	Office of Tobacco Control, Community Health and Wellness Unit, Division of Community Health Services, New Jersey Department of Health
<b>Loretta Mikulski</b>	President, Founder, Advocacy Ad Hoc Committee, Breast Cancer Workgroup, Chair	South Jersey Breast Cancer Coalition
<b>Kerry Miller</b>	Director NY/NJ Metro Programs Childhood Cancer Workgroup	Tom Coughlin Jay Fund Foundation
<b>Kathleen T. Morgan Dr, MH, DTR</b>	Professor/Department Chair Nutrition & Physical Activity Workgroup	Family & Community Health Sciences, Rutgers Cooperative Extension/Rutgers University
<b>Marian Morrison</b>	President, Reviewer-Advocacy	Strategic Partners, LLC
<b>Rita Musanti PhD, APN-C, AOCN</b>	Assistant Professor & Specialty Director Nutrition & Physical Activity Workgroup	Rutgers Cancer Institute of New Jersey
<b>Ana Natale-Pereira MD, MPH</b>	Assistant Professor of Medicine, Geriatrics & Community Programs, Colorectal Cancer Workgroup	Division of Academic, Rutgers New Jersey Medical School
<b>Xiaoling Niu MS</b>	Research Scientist	New Jersey Department of Health's Cancer Epidemiology Services
<b>Kenneth O'Dowd PhD, MS</b>	Research Scientist/BRFSS Director-Coordinator, Evaluation Committee	New Jersey Department of Health
<b>Lisa Paddock PhD, MPH</b>	Deputy Director, Adjunct Professor	New Jersey Department of Health's Cancer Epidemiology Services, Cancer Surveillance Research Program, Rutgers Cancer Institute of New Jersey, Rutgers School of Public Health

**Appendix B: Participants**

<b>Participant</b>	<b>Title/Task Force</b>	<b>Organization</b>
<b>Karen Pawlish ScD</b>	Research Scientist, Breast Cancer Workgroup	New Jersey Department of Health's Cancer Epidemiology Services
<b>Linda Pelligra</b>	Director Development, Melanoma Workgroup	Rutgers University Foundation
<b>Claudia Petruncio DO, FACOI</b>	Medical Director, Palliative Care Workgroup	Lighthouse Hospice
<b>Bill Pierce</b>	Corporate Director of Nursing Practice/ Performance Improvement Palliative Care Workgroup	Lourdes Health System
<b>Terri Pietsch RN</b>	Oncology Manager, Advocacy Ad Hoc Committee Palliative Care Workgroup	Meridian Health System
<b>Elizabeth Quigley MD</b>	Physician, Melanoma Workgroup	Memorial Sloan Kettering Cancer Center
<b>George Rhoads MD, MPH</b>	Professor, TaskForce Member Universities Engaged in Cancer Education, Research and Treatment	Rutgers School of Public Health Task Force
<b>Evelyn Robles-Rodríguez RN, MSN, APN-C AOCN</b>	Director, Oncology Outreach Programs, Breast Cancer Workgroup	Cooper Cancer Institute
<b>Lisa Roche PhD, MPH</b>	Epidemiologist, Breast Cancer Workgroup Evaluation Committee	New Jersey Department of Health's Cancer Epidemiology Services
<b>Maria Rocktashel MSN, APN</b>	Breast Health Coordinator, Breast Cancer Workgroup	Meridian Health System
<b>Lorna Rodriguez MD, PHD</b>	Interim Division Chief of Gynecologic Oncology, Director of Precision Medicine, Director of Biospecimen Repository Services, Gynecologic Cancer Workgroup	Rutgers Cancer Institute of New Jersey
<b>Margaret Rojewski RN, BC, MPH</b>	Coordinator NJCEED (Retired), Breast Cancer Workgroup, Gynecologic Cancer Workgroup	New Jersey Department of Health
<b>Daniel Rosenblum PhD</b>	Program Coordinator and Assistant Professor, Oral & Oropharyngeal Workgroup, Prostate Cancer Workgroup	Rutgers, The State University of NJ School of Public Health
<b>Arnold Rosenheck DMD</b>	TaskForce Member, Providers of Cancer Treatment and Support Services Oral & Oropharyngeal Workgroup	Task Force
<b>Marcia M. Sass ScD</b>	Assistant Professor, Evaluation Committee Melanoma Workgroup	Rutgers, The State University of NJ, School of Public Health, Department of Health Systems and Policy
<b>Jean Shipos</b>	Executive Director, Gynecologic Cancer Workgroup	Teal Tea Foundation

# Addressing the Burden of Cancer in New Jersey

## Appendix B: Participants



Participant	Title/Task Force	Organization
<b>Vinny Smith MA</b>	Community Health Educator, Gynecologic	Horizon NJHealth
<b>Dorinda Sparacio</b>	Board of Directors, Volunteer	Kaleidoscope of Hope Foundation,
<b>Michael Steinberg MD, MPH, FACP</b>	Chief, Division of General Internal Medicine, Associate Professor Lung Cancer Workgroup Oral & Oropharyngeal Workgroup	Rutgers Robert Wood Johnson Medical School
<b>Susan Stephens MSW, LCSW, ACSW</b>	Social Worker Childhood Cancer Workgroup	The Cancer Institute of New Jersey
<b>Antoinette Stroup PhD</b>	Director, New Jersey State Cancer Registry, Associate Professor and Chief, Division of Cancer Epidemiology Associate Member, Cancer Prevention and Control Program	Rutgers School of Public Health Rutgers Cancer Institute of New Jersey Rutgers, The State University New Jersey Department of Health's Cancer Epidemiology Services, Cancer Surveillance Research Program
<b>Lucille Talbot</b>	Chronic Disease Coalition Coordinator Nutrition & Physical Activity Workgroup	Regional Chronic Disease Coalition Morris and Somerset Counties
<b>A. Lynn Tobin RDH, MA</b>	Dental Hygiene Faculty Oral & Oropharyngeal Workgroup	Robert Wood Johnson Hospital Dental Department
<b>Firoozeh Vali PhD</b>	Task Force Member, Community Based Organizations, and Coalitions Engaged in Cancer Outreach, Education and Screening	Task Force
<b>Mary Vecchio RN, APN</b>	Adult Nurse Practitioner Advocacy Ad Hoc Committee	Hunterdon Regional Cancer Center
<b>David Warshal MD</b>	Head, Division of Gynecologic Oncology Gynecologic Cancer Workgroup	Cooper Hospital
<b>Barbara Waters</b>	Cancer Survivor Breast Cancer Workgroup	
<b>Stanley H. Weiss MD</b>	Professor, Cancer Liaison Physician Oral & Oropharyngeal Workgroup Prostate Cancer Workgroup	Rutgers The State University of NJ, New Jersey Medical School
<b>Bekele Wond MD</b>	Pediatric Hematology/Oncology Childhood Cancer Workgroup	Barnabas Health, Newark Beth Israel Medical Center
<b>James Wong MD</b>	Task Force Member Providers of Cancer Treatment and Support Services	Task Force
<b>Linda Talarico Xerri</b>	Youth Ministry Coordinator Gynecologic Cancer Workgroup	St. Mary of the Lakes







## Appendix C: Bibliography

## Appendix C: Bibliography

- 1 Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Comprehensive Cancer, Control Branch Program *Evaluation Toolkit*, (2010). Available from: [http://www.cdc.gov/cancer/ncccp/pdf/CCC\\_Program\\_Evaluation\\_Toolkit.pdf](http://www.cdc.gov/cancer/ncccp/pdf/CCC_Program_Evaluation_Toolkit.pdf) Accessed May 31, 2014.
- 2 Centers for Disease Control and Prevention and Battelle Centers for Public Health Research and Evaluation. *Guidance for Comprehensive Cancer Control Planning*. Atlanta, GA: Centers for Disease Control and Prevention, 2002.
- 3 Data Source: New Jersey State Cancer Registry January 2016 file, Cancer Epidemiology Services, NJ Department of Health. Cancer prevalence estimates were based on the NJSCR database prepared in January 2016, which included cancers diagnosed between 1979 and 2012. Vital status follow-up was complete through December 31, 2013. The estimates for prevalent cancers diagnosed within 34 years were generated using the Limited-Duration Prevalence session in the SEER\*Stat software program. Estimates were based on the first invasive primary cancers only. Complete prevalence was calculated using the completeness index by cancer type and sex in the Completeness Prevalence (ComPrev) program, Version 2.0, National Cancer Institute, based on 34-year (1979-2012) prevalence estimates.
- 4 *Age-Adjusted Cancer Incidence Rates by County in New Jersey, 2012 - 2012*. Based on February 2016 New Jersey State Cancer Registry Data File. New Jersey State Cancer Registry. Cancer-Rates.info. Available at: <http://cancer-rates.info/nj/> Accessed May 21, 2016
- 5 *Age-Adjusted Cancer Mortality Rates by County in New Jersey, 2012 - 2012*. Mortality data provided by Center for Health Statistics, NJDOH. New Jersey State Cancer Registry. Cancer-Rates.info. Available at: <http://cancer-rates.info/nj/> Accessed May 21, 2016
- 6 Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2015. Source: U.S. Census Bureau, Population Division. Release Dates: For the United States, regions, divisions, states, and Puerto Rico Commonwealth, December 2015. For counties, municipios, metropolitan statistical areas, micropolitan statistical areas, metropolitan divisions, and combined statistical areas, March 2016. For Cities and Towns (Incorporated Places and Minor Civil Divisions), May 2016. Accessed May 21, 2016
- 7 U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates: Detailed Race. Available at: <http://factfinder.census.gov/>. Accessed May 21, 2016
- 8 U.S. Census Bureau, American Community Survey, 2010-2014 American Community Survey 5-Year Estimates: SELECTED CHARACTERISTICS OF THE NATIVE AND FOREIGN-BORN POPULATIONS. Available at: <http://factfinder.census.gov>. Accessed May 21, 2016
- 9 Kelly L, Lamothe-Galette C, Li Y, O'Dowd K. *The Health of the Newest New Jerseyans: A Resource Guide*. Center for Health Statistics, Office of Policy & Strategic Planning, New Jersey Department of Health and Senior Services, Trenton, NJ. February 2011.
- 10 U.S. Census Bureau: Small Area Income and Poverty Estimates, Release Highlights of 2014. Available at: <http://www.census.gov/did/www/saipe/index.html>. Accessed May 22, 2016.
- 11 U.S. Census Bureau, American Community Survey, 2010-2014 American Community Survey 5-Year Estimates: MEDIAN AGE BY SEX. Available at: <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml> Accessed May 22, 2016



- 12 U.S. Census Bureau, Population Division: Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2014. Release Date: June 2015. Available at: <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml> Accessed May 22, 2016
- 13 Burger SS, Agovino P, Weinstein R, Klotz, JB, Abe T, Van Loon S. Cancer Among Older Adults in New Jersey, 1994–1998. Trenton, NJ: New Jersey Department of Health and Senior Services, Cancer Epidemiology Services, 2002.
- 14 Niu X, Burger SS, Pawlish K, Paddock L, Agovino PK. Cancer Incidence and Mortality in New Jersey, 2006–2010. Trenton, NJ: New Jersey Department of Health Cancer Epidemiology Services Public Health Services Branch, 2013
- 15 Roche LM, Xiaoling N, Henry KA. Invasive cervical cancer disparities in New Jersey, Presentation, 2014 Annual Retreat on Cancer Research in New Jersey, Piscataway, NJ: New Jersey Department of Health Cancer Epidemiology Services Public Health Services Branch, Department of Epidemiology, Rutgers School of Public Health, May 21, 2014
- 16 *Age-Adjusted Invasive Cancer Incidence Rates by County in New Jersey, 2008 - 2012*. Based on February 2016 New Jersey State Cancer Registry Data File. New Jersey State Cancer Registry. Cancer-Rates.info. Available at: <http://cancer-rates.info/nj/>. Accessed May 22, 2016
- 17 *Age-Adjusted Cancer Mortality Rates by County in New Jersey, 2008 - 2012*. Mortality data provided by Center for Health Statistics, NJDOH. New Jersey State Cancer Registry. Cancer-Rates.info. Available at: <http://cancer-rates.info/nj/>. Accessed May 22, 2016
- 18 Berrigan D, Tatalovich Z, Pickle LW, Ewing R, Ballard-Barbash R. Urban sprawl, obesity, and cancer mortality in the United States: cross-sectional analysis and methodological challenges. *International Journal of Health Geographics* 2014;13(3). Available at: <http://www.ij-healthgeographics.com/content/13/1/3>, Accessed June 30, 2014
- 19 SEER Cancer Statistics Factsheets: All Cancer Sites. National Cancer Institute. Bethesda, MD. Available at: <http://seer.cancer.gov/statfacts/html/all.html> Accessed May 23, 2016
- 20 Howlader N, Noone AM, Krapcho M, Garshell J, Miller D, Altekruse SF, Kosary CL, Yu M, Ruhl J, Tatalovich Z, Mariotto A, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). SEER Cancer Statistics Review, 1975-2011, National Cancer Institute. Bethesda, MD, based on November 2013 SEER data submission, posted to the SEER web site, April 2014. Available at: [http://seer.cancer.gov/csr/1975\\_2011/](http://seer.cancer.gov/csr/1975_2011/). Accessed June 12, 2014.
- 21 American Cancer Society. Cancer Treatment and Survivorship Facts & Figures 2014-2015. Atlanta: American Cancer Society; 2014.
- 22 DeSantis CE, Lin CC, Mariotto AB, et al. (2014), Cancer treatment and survivorship statistics, 2014. *CA: A Cancer J Clin*. 10.3322/caac.21235
- 23 Cancer Survivorship: State Policy Issues Overview. National Conference of State Legislatures, 2010. Available from: <http://www.ncsl.org/research/health/cancer-survivorship-state-policy-issues-overview.aspx>. Accessed June 20, 2014.
- 24 American Cancer Society. The Health Care Law: How it Can Help People with Cancer and Their Families. 2013

## Appendix C: Bibliography

- 25 Hempstead K, Cantor J. Health Insurance Coverage and Marketplace Enrollment in New Jersey. Robert Wood Johnson Foundation. 2014 May 22.
- 26 *Cancer Trends Progress Report – 2011/2012 Update*, National Cancer Institute, NIH, DHHS, Bethesda, MD, August 2012: <http://progressreport.cancer.gov>. Accessed June 12, 2014.
- 27 National Cancer Institute, Centers for Disease Control and Prevention, State Cancer Profiles. Available at <http://state-cancerprofiles.cancer.gov/>. Accessed August 24, 2016.
- 28 Age-Adjusted Invasive Cancer Incidence Rates by County in New Jersey, 2009 - 2013. Based on February 2016 New Jersey State Cancer Registry Data File. New Jersey State Cancer Registry. Available at <http://cancer-rates.info/nj/>. Accessed on Aug 24, 2016.
- 29 American Cancer Society. Cancer Facts and Figures 2014. Atlanta, GA: American Cancer Society, Inc., 2014
- 30 Age-Adjusted Invasive Cancer Incidence Rates by County in New Jersey, 2009 - 2013. Based on February 2016 New Jersey State Cancer Registry Data File. New Jersey State Cancer Registry. Available at <http://cancer-rates.info/nj/>. Accessed August 24, 2016.
- 31 Tsukuma H, Hiyama T, Tanaka S, et al. Risk factors for hepatocellular carcinoma among patients with chronic liver disease. *NEJM*. 1993;328(25):1797-1801.
- 32 Norman JE, Beebe GW, Hoofnagle JH, Seeff LB. Mortality follow-up of the 1942 epidemic of hepatitis B in the U.S. Army. *Hepatology*. 1993;18(4):790-797.
- 33 DiBisceglie AM, Simpson LH, Lotze MT, Hoofnagle JH. Development of hepatocellular carcinoma among patients with chronic liver disease due to hepatitis C viral infection. *J Clin Gastroenterol*. 1994;19(3):222-226.
- 34 Ryder RW, Whittle HC, Sanneh AB, Ajdukiewicz AB, Tulloch S, Yvonne B. Persistent hepatitis B virus infection and hepatoma in the Gambia, West Africa: A case-control study of 140 adults and their 603 family contacts. *Am J Epidemiol*. 1992;136(9):1122-1131.
- 35 Centers for Disease Control and Prevention. Hepatitis B virus: A comprehensive strategy for eliminating transmission in the United States through universal childhood vaccination: Recommendations of the Immunization Practices Advisory Committee (ACIP). *MMWR Recommendations and Reports*. 1991;40(RR-13):1-25.
- 36 Centers for Disease Control and Prevention. 1998 guidelines for treatment for sexually transmitted diseases. *MMWR Recommendations and Reports*. 1998;47(RR-1):1-116.
- 37 Smith DE. The Celebration on the Hill Bus. Washington, DC: American Cancer Society's National Government Relations Grassroots Development Office, 2002. *ACS ACTION* 2002;5(1):1-3.
- 38 World Cancer Research Fund, American Institute for Cancer Research. Food, Nutrition and the Prevention of Cancer: A Global Perspective. Washington, DC: American Cancer Institute for Cancer Research; 2007.
- 39 Kushi LH, Doyle C, McCullough M, Rock CL, Demark-Wahnefried W, Bandera EV, Gapstur S, Patel AV, Andrews K, Gansler T. American Cancer Society Guidelines on nutrition and physical activity for cancer prevention: reducing the risk of cancer with healthy food choices and physical activity. *CA Cancer J Clin* 2012; 62(1):30-67.
- 40 Massey RU and Hurler RJ. Hospice and Palliative Care. *Cancer Therapeutics* 1998;1(2):117-123.



- 41 Von Guten CF. Secondary and Tertiary Palliative Care in U.S. Hospitals. *JAMA* 2002;287(7):875- 881.
- 42 Hui, D., Elsayem, A., De La Cruz, M., Berger, A., Zhukovsky, D. S., Palla, S., & Bruera, E. (2010). Availability and Integration of Palliative Care at US cancer centers. *JAMA*, 303(11), 1054-1061.
- 43 Mansky PJ and Wallerstedt DB. Complementary Medicine in Palliative Care and Cancer Symptom and Supportive Care 2006;12(5):425-431.
- 44 SEER Cancer Statistics Factsheets: Breast Cancer. National Cancer Institute. Bethesda, MD. Available at: <http://seer.cancer.gov/statfacts/html/breast.html> Accessed June 14, 2014
- 45 SEER Cancer Statistics Factsheets: Female Breast Cancer. National Cancer Institute. Bethesda, MD. Available from: <http://seer.cancer.gov/statfacts/html/breast.html> Accessed January 4, 2017
- 46 Bao T, Prowell T, and Stearns V. Chemoprevention of breast cancer: Tamoxifen, raloxifene, and beyond. *American Journal of Therapeutics* 2006; 13:337-348.
- 47 Cuzick J, Sestak I, Bonanni B, et al; for the SERM Chemoprevention of Breast Cancer Overview Group. Selective oestrogenreceptor modulators in prevention of breast cancer: an updated meta-analysis of individual participant data. *Lancet*. 2013 Apr 29.
- 48 National Cancer Institute. Inflammatory Breast Cancer: Questions and Answers. Bethesda, MD: National Institutes of Health, National Cancer Institute, 2012. Available at <http://www.cancer.gov/cancertopics/factsheet/Sites-Types/IBC>. Accessed May 31, 2014.
- 49 New Jersey Behavioral Risk Factor Survey (NJBRFS). *Data Table of Percentage of Responses by Mammogram Status (age 40+) and Year*. New Jersey Department of Health, Center for Health Statistics, New Jersey State Health Assessment Data (NJSHAD) [online]. Available at: <http://nj.gov/health/shad>. Accessed August 24, 2016
- 50 Centers for Disease Control and Prevention (CDC). 2012 Behavioral Risk Factor Surveillance System Survey Women's Health Prevalence Tables. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Available at: <http://apps.nccd.cdc.gov/bfss/index.asp>. Accessed June 14, 2014.
- 51 National Cancer Institute. NCI Cancer Bulletin. A Closer Look New Guidance for Personalized Breast Cancer Screening. 2011; August 9; (8)16. Available from: <http://www.cancer.gov/ncicancerbulletin/080911/page5> Accessed August 4, 2014.
- 52 Schoubse, JT, Kerlikowske K, Loh A, Cummings SR. Personalizing mammography by breast density and other risk factors for breast cancer: analysis of health benefits and cost-effectiveness. *Ann Intern Medicine* 2011; Jul 5155(1):10-20.
- 53 Shochat SJ, Fremgen AM, Murphy SB, Hutchison C, Donaldson SS, Haase GM, Provisor AJ, Clive-Bumpus RE, and Winchester DP. Childhood cancer: Patterns of protocol participation in a national survey. *CA: A Cancer Journal for Clinicians* 2001;51 (2):119-130.
- 54 Siegel, R., DeSantis, C., Virgo, K., Stein, K., Mariotto, A., Smith, T., Cooper, D., Gansler, T., Lerro, C., Fedewa, S., Lin, C., Leach, C., Cannady, R. S., Cho, H., Scoppa, S., Hachey, M., Kirch, R., Jemal, A. and Ward, E. (2012), Cancer treatment and survivorship statistics, 2012. *CA: A Cancer Journal for Clinicians*, 62: 220-241. doi: 10.3322/caac.21149

## Appendix C: Bibliography

- 55 Nathan PC, Greenberg ML, Ness KK, Hudson MM, Mertens AC, Mahoney MC, et al. Medical care in long-term survivors of childhood cancer: a report from the Childhood Cancer Survivor Study. *J Clin Oncol* 2008;26(27):4401-9
- 56 Institute of Medicine, National Research Council. Childhood Cancer Survivorship: Improving Care and Quality of Life. Weiner SL, Simone JV, and Hewitt M, eds. Washington, DC: National Academic Press, 2003.
- 57 SEER Cancer Statistics Factsheets: Colon and Rectum Cancer. National Cancer Institute. Bethesda, MD. Available from: <http://seer.cancer.gov/statfacts/html/colorect.html> Accessed January 4, 2017
- 58 Smith RA, Mannassaram-Baptiste D, Brooks D, Cokkinides V, Doroshenk, M, Saslow, D, Wender RC and Brawley OW. American Cancer Society guidelines for the early detection of cancer, 2014. *Ca: a Cancer Journal for Clinicians* 2014;64 1:30-51.
- 59 Edwards BK, Ward E, Kohler BA, et al. Annual report to the nation on the status of cancer, 1975-2006, featuring colorectal cancer trends and impact of interventions (risk factors, screening, and treatment) to reduce future rates. *Cancer*. 2010;116: 544-573.
- 60 Murphy G, Devesa SS, Cross AJ, Inskip PD, McGlynn KA, Cook MB. Sex disparities in colorectal cancer incidence by anatomic subsite, race and age. *Int J Cancer*. 2010;128: 1668-1675.
- 61 New Jersey Behavioral Risk Factor Survey (NJBRFS). *Data List for Percentage of People Age 50 to 75 Who Received a Colorectal Cancer Screening, by Year, New Jersey and U.S. 2001-2013*. New Jersey Department of Health, Center for Health Statistics, New Jersey State Health Assessment Data (NJSHAD) [online]. Accessed at <http://nj.gov/health/shad> on August 25, 2016
- 62 American Cancer Society. *Colorectal Cancer Facts and Figures 2014-2016*. Atlanta, GA: American Cancer Society, Inc., 2014.
- 63 SEER Cancer Statistics Factsheets: Cervix Uteri Cancer. National Cancer Institute. Bethesda, MD. Available from: <http://seer.cancer.gov/statfacts/html/cervix.html> Accessed August 25, 2016.
- 64 National Cancer Institute: PDQ@ Cervical Cancer Screening. Bethesda, MD: National Cancer Institute. Date last modified 05/22/2014. Available at: <http://cancer.gov/cancertopics/pdq/screening/cervical/HealthProfessional> Accessed July 12, 2014
- 65 New Jersey Behavioral Risk Factor Survey (NJBRFS). *Data List for Percentage of Adult Women who had a Pap Test Within the Past Three Years, by Year, New Jersey, 2001-2013*. New Jersey Department of Health, Center for Health Statistics, New Jersey State Health Assessment Data (NJSHAD) [online]. Available at: <http://nj.gov/health/shad> Accessed August 27, 2016.
- 66 New Jersey Behavioral Risk Factor Survey (NJBRFS). *Data List for Percentage of Adult Women who had a Pap Test Within the Past Two Years, by Race/Ethnicity, New Jersey, 2012-2013*. New Jersey Department of Health, Center for Health Statistics, New Jersey State Health Assessment Data (NJSHAD) [online]. Available at: <http://nj.gov/health/shad> Accessed August 27, 2016.
- 67 Centers for Disease Control and Prevention, Vaccines and Immunizations, Human Papillomavirus Epidemiology and Prevention of Vaccine-Preventable Diseases. *The Pink Book: Course Textbook - 12th Edition Second Printing*. May 2012; 139:150.

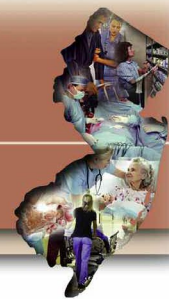


- 68 Zimet GD. Improving adolescent health: Focus on HPV vaccine acceptance. *J Adolescent Health*. 2005;37(6 Suppl): S17–S23.
- 69 National Cancer Institute: NCI Cancer Bulletin Use and Acceptance of HPV Vaccination Still a Work in Progress. Bethesda, MD: National Cancer Institute. May 3, 2011.
- 70 Bednarczyk RA, Davis R, Ault K, Oreenstein, W, Omer SB. Sexual activity-related outcomes after human papillomavirus vaccination of 11- to 12-year-olds. *Pediatrics*. 2012;130(5):798-805; published ahead of print October 15, 2012, doi:10.1542/peds.2012-1516.
- 71 Dorell, C, Yankey, David, Kennedy, A, Stokley, Shannon. Factors that influence parental vaccination decisions for adolescents, 13 to 17 years old: National Immunization Survey–Teen, 2010 *Clin Pediatr*. February 2013;52:162-170, first published on December 6, 2012.
- 72 SEER Cancer Statistics Factsheets: Ovary Cancer. National Cancer Institute. Bethesda, MD. Available from: <http://seer.cancer.gov/statfacts/html/ovary.html>. Accessed August 27, 2016.
- 73 Luce TL, Dow KH, Holcomb L. Early diagnosis key to epithelial ovarian cancer detection. *The Nurse Practitioner*. 2003;28(12):41-47.
- 74 Goff B. Symptoms associated with ovarian cancer. *Clin Obstet Gynecol*. 2012 Mar;55(1):36-42. doi: 10.1097/GRF.0b013e3182480523.
- 75 Seibaek L, Petersen LK, Blaakaer J, Hounsgaard L. Symptom interpretation and health seeking in ovarian cancer. *BMC Women's Health*. 2011; June 23 11:31 doi:10.1186/1472-6874-11-31.
- 76 Brian KE, Smits, S, Simon AE, et al. Ovarian cancer symptom awareness and anticipated delayed presentation in a population sample. *BMC Cancer*. 2014 14:171.
- 77 Koldjewki D, Kirkpatrick MK, Swanson M, Everett L, Brown S. An ovarian cancer diagnosis-seeking process: Unraveling the diagnostic delay problem. *Oncology Nursing Forum*. 2005;32(5):1036-1042.
- 78 SEER Cancer Statistics Factsheets: Lung and Bronchus Cancer. National Cancer Institute. Bethesda, MD. Available from: <http://seer.cancer.gov/statfacts/html/lungb.html>. Accessed January 4, 2017.
- 79 New Jersey Department of Health, Center for Health Statistics, New Jersey State Health Assessment Data (NJSHAD) [online]. *Indicator Report - Incidence of Lung & Bronchus Cancer*. Available at: <https://www26.state.nj.us/doh-shad/indicator/view/LungBroncCa.YearSex.html> Accessed August 27, 2016
- 80 U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.
- 81 U.S. Department of Health and Human Services. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014. Accessed March 5, 2014.



## Appendix C: Bibliography

- 82 New Jersey Health Assessment Data: Cigarette Smoking Prevalence Among Older Adults Aged 65+ Important Facts for Adult Cigarette Smoking Prevalence 65+. 2014. Available at: <http://www.uspreventiveservicestaskforce.org/uspstf13/lungcan/lungcanfinalrs.htm>. Accessed June 17, 2014.
- 83 U.S. Department of Health and Human Services. Ending the Tobacco Epidemic: A Tobacco Control Strategic Action Plan for the U.S. Department of Health and Human Services. Washington, DC: Office of the Assistant Secretary for Health, November 2010.
- 84 Rutgers, School of Public Health, Tobacco Dependence Program. New Jersey Guidelines for Tobacco Dependence Treatment. New Brunswick, NJ: Comprehensive Tobacco Control Program, 2001. Available at: <http://www.tobaccoprogram.org>. Accessed June 17, 2014.
- 85 U.S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Rockville, MD: Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.
- 86 Fiore MC, Jaén CR, Baker TB, et al. Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. May 2008.
- 87 US Environmental Protection Agency. A Citizen's Guide to Radon. May 2012. Available at: <http://www.epa.gov/radon/pubs/citguide.html>. Accessed September 2, 2014.
- 88 Richards TB, White MC, Caraballo RS. Lung Cancer Screening with Low-Dose Computed Tomography for Primary Care Providers. *Primary Care: Clinics in Office Practice*. 2014;41(2):307-330.
- 89 SEER Cancer Statistics Factsheets: Melanoma of the Skin. National Cancer Institute. Bethesda, MD. Available at: <http://seer.cancer.gov/statfacts/html/melan.html>. Accessed August 27, 2016.
- 90 Walter SD, King WD, Marrett LD. Association of cutaneous malignant melanoma with intermittent exposure to ultraviolet radiation: Results of a case-control study in Ontario, Canada. *Int J Epidemiol*. 1999;28(3):418-427.
- 91 Narayanan DL, Saladi RN, Fox JL. Review: Ultraviolet radiation and skin cancer. *Int J Dermatol*. 2010;49(9):978-986.
- 92 Rigel DS. Epidemiology of melanoma. *Seminars in Cutaneous Medical Surgery Journal*. 2010 Dec;29(4):204-209. doi: 10.1016/j.sder.2010.10.005.
- 93 World Health Organization International Agency for Research on Cancer Working Group on Artificial Ultraviolet (UV) Light and Skin Cancer. The association of use of sunbeds with cutaneous malignant melanoma and other skin cancers: a systematic review. *In J Cancer*. 2007;120:1116-1122.
- 94 Lazovich, D, Vogel RI, Berwick, M, Weinstock MA, Anderson KE, Warshaw E. Indoor tanning and risk of melanoma: a case-control study in a highly exposed population. *Cancer Epidemiol Biomarkers Prev*. 2010 June;19(6):1557-1568.
- 95 IBIS World Industry Report: Tanning Salons in the US. NAICS 81219c. 2016 June.
- 96 Use of Indoor Tanning Devices by Adults — US, 2010 MMR Weekly. May 11, 2012 61(18):323-326.
- 97 National Institutes of Health. NIH Consensus conference: Diagnosis and treatment of early melanoma. *JAMA*. 1992;268(10):1314-1319.



- 98 Source: SEER Cancer Statistics Factsheets: Oral Cavity and Pharynx Cancer. National Cancer Institute. Bethesda, MD. Available from <http://seer.cancer.gov/statfacts/html/oralcav.html>. Accessed June 17, 2014.
- 99 Stefanuto P, J Doucet J-C, Robertson C. Delays in treatment of oral cancer: a review of the current literature. *Oral Surg, Oral Med, Oral Pathol and Oral Radiol*. 2014;117(4):424-429.
- 100 Melrose RJ, Handlers JP, Kerpel S, Summerlin DJ, Tomich CJ, American Academy of Oral and Maxillifacial Pathology. The use of biopsy in dental practice. The position of the American Academy of Oral and Maxillofacial Pathology. *General Dentistry*. 2007;55(5):457-461.
- 101 Public Health Service. The Health Consequences of Smoking: Cancer: A Report of the Surgeon General. DHSS publication no. (PHS) 82-50179. Rockville, MD: Centers for Disease Control and Prevention, Office on Smoking and Health, 1982.
- 102 Public Health Service. The Health Consequences of Using Smokeless Tobacco: A Report of the Advisory Committee to the Surgeon General. NIH publication no. 86-2874. Bethesda, MD: U.S. Department of Health and Human Services, Public Health Service, 1986.
- 103 National Cancer Institute, Centers for Disease Control and Prevention, Stockholm Centre of Public Health. Third International Conference on Smokeless Tobacco; Stockholm. September 22-25, 2002.
- 104 Ringstrom E, Peters E, Hasegawa M, Posner M, Liu M, Kelsey KT. Human papillomavirus type 16 and squamous cell carcinoma of the head and neck. *Clin Cancer Res*. 2002;8(10):3187-3192.
- 105 SEER Cancer Statistics Factsheets: Prostate Cancer. National Cancer Institute. Bethesda, MD. Available from: <http://seer.cancer.gov/statfacts/html/prost.html>. Accessed January 4, 2017.
- 106 U.S. Preventive Services Task Force. Screening for Prostate Cancer: Recommendations and Rationale. Rockville, MD: Agency for Healthcare Research and Quality. Available from: <http://www.uspreventiveservicestaskforce.org/prostatecancerscreening/prostatefinalrs.htm#summary>. Accessed June 11, 2014.



# Comprehensive Cancer Control Plan

*Task Force on Cancer Prevention,  
Early Detection and Treatment in  
New Jersey*

Report to the Governor  
2013-2018

