PASSAIC COUNTY

Cancer Control and Prevention Capacity and Needs Assessment Report Summary

December 2004

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Notices:

Medicine is an ever-changing science. As new research and data broaden our knowledge, conclusions may change. The authors and reviewers have endeavored to check the sources of information and to utilize sources believed to be the most reliable in an effort to provide information that is as complete as possible at the time of submission and generally in accord with appropriate standards. However, in view of the possibility of human error or changes in medical science, this work cannot be warranted as being complete and accurate in every respect. Readers are encouraged to confirm the information contained herein with other sources. Information concerning some of the sources of data, rationale for its utilization, acknowledgements of specific parties contributing to these efforts, as well as links to cancer-related information may be found at www.umdnj.edu/evalcweb/.

This county-level Report Summary summarizes the larger county report, which is a baseline evaluation of this county, performed as part of the Capacity and Needs Assessment initiative of the New Jersey Comprehensive Cancer Control Plan (www.state.nj.us/health/ccp/ccc_plan.htm), under the direction of NJDHSS/OCCP (www.state.nj.us/health/ccp/), the University of Medicine and Dentistry of New Jersey (UMDNJ) (www.umdnj.edu/evalcweb/), and the Evaluation Committee of the Governor's Task Force on Cancer Prevention, Early Detection and Treatment in New Jersey (Task Force Chair: Arnold Baskies, MD; Evaluation Committee Chair: Stanley H. Weiss, MD).

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Passaic County
Cancer Capacity and Needs Assessment Report Summary

Introduction

The Office of Cancer Control and Prevention (OCCP) of the New Jersey Department of Health and Senior Services (NJDHSS), in conjunction with the mandate from the Governor's Task Force on Cancer Prevention, Early Detection and Treatment in New Jersey (Task Force), is developing comprehensive capacity and needs assessment reports concerning cancer, individualized for each county in the state. This Report Summary highlights key findings in the report for Passaic County.[1]

The Task Force released New Jersey's Comprehensive Cancer Control Plan (NJ-CCCP) in 2002.[2] Each county was commissioned to develop a comprehensive capacity and needs assessment report, as part of the initial implementation steps for the NJ-CCCP. The full Report and this Report Summary were developed under the direction of the University of Medicine and Dentistry of New Jersey (UMDNJ) and the Evaluation Committee of the Task Force in furtherance of the NJ-CCCP (which can be found at: http://www.state.nj.us/health/ccp/ccc_plan.htm). This particular assessment was funded by the OCCP through the following New Jersey Cancer Education and Early Detection (NJCEED) programs in Passaic County: (1) PBI Regional Medical Center NJCEED Program and (2) Rainbows of Hope Cancer Screening Program of St. Joseph's Hospital and Medical Center.

The purpose of the capacity and needs assessment reports is to identify the major cancer issues affecting each county and the county's available resources, or lack thereof, for cancer prevention, screening, and treatment, and to propose recommendations for improvement. The Passaic County Cancer Capacity and Needs Assessment Report analyzes the population demographics and the cancer incidence and mortality rates and distribution of stage at diagnosis for the seven priority cancers of the NJ-CCCP (breast, cervical, colorectal, lung, oral, melanoma, and prostate), as well as the current resources available, in the county. These data guided the development of evidence-based recommendations and interventions to address cancer control priorities at local and state levels.

Section 1 – County Demographic Profile

Passaic County's population and its location affect the manner in which health services are provided and received. In 2000, Passaic County's 16 municipalities totaled 489,049 persons,[a] an increase of 7.9% since 1990.[b] Sixty percent of the county's population lives in the densely

[a] After this report was prepared, the Census Bureau issued corrected Census 2000 population figures for Passaic County, resulting in a 0.3% increase in the total population (490,377). Within Section 1 of this report, the original population figures are used.
[b] In general, percentages in this report are rounded to two digits.

populated urban south. This area is home to a racially and ethnically mixed population consisting of individuals who tend to have lower incomes and are newer residents to the United States compared to individuals living in the northern suburban part of the county. This area also has more modest, less expensive housing compared to the northern part of the county. In 2000, the combined population of the county's six northern municipalities – including Wayne Township and areas north of it – was 90% or more white. The residents of these northern municipalities have higher incomes and education levels than those in the south.

Thirteen percent of the county's population is black, as is almost 33% of the City of Paterson. Persons of Hispanic ethnicity make up 30% of the county's population (146,492), an increase from 21% in 1990. Ninety percent of the county's Hispanic population lives in the cities of Paterson, Clifton, and Passaic; the City of Passaic has the largest percentage of Hispanic residents (62%).

The differences in the county population's social, income, ethnic, and racial characteristics in its northern and southern areas are significant and affect their residents' ability to access cancer services. Two factors that prevent many residents from obtaining timely health care services are the fact that many speak a language other than English (30 languages are spoken in Passaic County), and many individuals have cultural traditions that can create barriers to understanding the practices and protocols of the health system in the United States.

In 1999, Passaic County had the third highest number of persons in New Jersey with income below the federal poverty level (59,072), after Essex County (120,006) and Hudson County (93,149).[c,3] An estimated 12.3% of Passaic County's population had incomes below the federal poverty level, compared to 8.5% of the state's population; 29% of the county's population had incomes below 200% of the poverty level, compared with 20% of the state's population.[3] Approximately 17% of the county's population was not covered by health insurance in 2000 compared with 13% of the state's population.[4]

In 2000, age-adjusted death rates from all causes were higher among blacks than whites in Passaic County in all age groups except for the 65+ age group.[5] The locations of all of the Health Professional Shortage Areas and Medically Underserved Areas (MUAs) in Passaic County are in the southern areas of the county, in the cities of Paterson and Passaic.[4]

The foregoing material supports the conclusion made in a New Jersey Department of Health and Senior Services Report: "Major disparities exist in health status, access to health care, and health outcomes among the various racial and ethnic groups that comprise New Jersey's population."[6] These disparities and cancer burden are the major factors influencing cancer program definition and resource allocation in Passaic County. Specific recommendations concerning cancer program design and resource allocation are addressed in Section 4.

[c] All figures for poverty, income, and employment are from the 2000 Census, but refer to the year 1999.

Section 2 – Overview of Overarching Issues

In the following section, cancer services in Passaic County are discussed in terms of (1) access by persons who require them, (2) the degree to which cancer-related education for risk factors and detection is provided to the school population, (3) the extent to which persons living with cancer can obtain palliation and support services, (4) the number of hospitals and other institutions providing different types of cancer services, (5) the extent to which persons and institutions engage in advocacy activities to acquire and implement cancer-related resources, (6) the extent to which cancer prevention programs, including physical education and nutrition programs, are available, (7) the availability of childhood cancer services, and (8) the extent to which resources serving Passaic County residents are located outside of the county. A countywide cancer control plan would enhance coordination of cancer prevention and control services in Passaic County.

Passaic County does not have a comprehensive cancer plan to address the cancer burden that exists within its borders. The Passaic County Department of Health focuses on environmental matters and does not provide direct personal health services. Municipal health departments provide some health services, but do not cooperatively coordinate countywide cancer services. The six hospitals primarily serving Passaic County residents[d] tend to be independent, competitive, and focused on their multi-municipal and multi-county service areas. According to key informants, hospitals and physicians are sensitive to the maintenance of their revenues and tend to limit delivery of low-cost or free cancer care, which has a negative effect on the low-income uninsured and underinsured population.[e]

Resources

Detailed information regarding cancer screening, education, advocacy, treatment, palliation, and other activities has been collected to identify resources currently available in Passaic County. This information was included in the statewide Cancer Resource Database of New Jersey (CRDNJ), based on responses to surveys conducted in 2003–2004.[7]

Services offered through the county's cancer care community are uncoordinated and fragmented. This system is often difficult for health professionals and consumers of health services to understand and navigate. Although service providers maintain that they are able to obtain cancer treatment for all persons, obtaining timely service is often impeded for low-income persons because they must establish their eligibility for each program to which they are referred.

[d] Chilton Memorial Hospital is located in Morris County and is the primary hospital provider to municipalities in northern Passaic County.

[e] The planned expansion of the Passaic County Cancer Coalition operated by the two NJCEED Programs into a countywide entity will assist development of a County Cancer Plan with the participation of the hospitals and others serving and utilizing services in Passaic County. Further, the coalition is planning to liaise its work with that of the Passaic County Public Health Partnership, an organization that includes the Passaic County Department of Health and all of the municipal health departments, and that is preparing a Community Health Improvement Plan (CHIP). This plan can include a component that addresses the cancer burden and the recommendations of this Report Summary.

Schools

New Jersey law requires that limited cancer education, including instruction for breast self-examination, be provided to grade school students. Providing such education is the individual responsibility of each school district. Additional research is required to understand the extent to which Passaic County students receive cancer-related education in their schools.

Hospital Providers

Hospitals serving Passaic County vary with respect to the amount and type of cancer services that they provide. A summary of the major hospital providers and their services is shown below (Table 1). Recognizing that cancer is a complex group of diseases, the American College of Surgeons Commission on Cancer (CoC) Approvals Program promotes consultation among surgeons, medical and radiation oncologists, diagnostic radiologists, pathologists, and other cancer specialists in order to improve patient care.[8] Every approved cancer program must provide a host of basic services, including diagnostic services; treatment; other clinical services such as clinical research, oncology nursing, and pain management; rehabilitation; support services such as hospice care and nutritional support; and prevention and early detection.[f]

Childhood cancer services are primarily provided by St. Joseph's Hospital and Regional Medical Center.

Table 1. Cancer Care Services, Cancer Programs, and American College of Surgeons Commission on Cancer (CoC) Accreditation Status in Passaic County Hospitals

Facility	Service						
	Screening	Primary Care	Acute Care	Chemo-therapy	Radiation	Pain Mgmt	CoC Accreditation
Barnert Hospital	✓	✓	✓	✓	✓	✓	No Information provided
PBI Regional Medical Center	✓	✓	✓	✓	✓	✓	Community Hospital Cancer Program
St. Mary's Hospital	✓	✓	✓				No Information Provided
St. Joseph's Regional Medical Center*	✓	✓	✓	✓	✓	✓	Teaching Hospital Cancer Program
Chilton Memorial Hospital**	✓	✓	✓	✓	✓	✓	Community Hospital Comprehensive Cancer Program

Data Source: Key informant interviews, conducted 7/03 through 6/04
* Includes the Medical Center's facility located in Wayne
** The hospital is located in Morris County, but serves residents in northern Passaic County.

[f] This list of basic services is not exhaustive. Please see www.facs.org/cancer/coc/whatis.html for more information.

Palliative Care

Increasingly, cancer has acquired the characteristics of a chronic disease. Services providing longer term palliative care and support activities, including hospice services and pain management, are required for those residents living with cancer. We know that such services are provided by hospitals, visiting nurse services, and private organizations, but it is unclear if the services are uniformly available and defined by all of their providers.

NJCEED and Other Health Service Providers

The two NJDHSS-funded and hospital-based NJCEED programs in the county provide extensive education, prevention, detection, and treatment services to the Passaic County population. These NJCEED programs contract with a few of the municipal public health departments to deliver education and screening services. The Paterson Public Health Department and the Paterson Health Center, a federally qualified health center (FQHC), provide low-cost and free education and screening services. Of the 16 mammography providers available to private paying or insured residents in Passaic County, 10 facilities responded to the CRDNJ survey.[1]

Prevention Activities

Several tobacco control programs delivered by a variety of sponsors operate in the county. A variety of service organizations assist residents in identifying cancer-related health and social services. Results of web searches suggest that Passaic County offers few cancer prevention activities related to nutrition and physical activity, although a few general nutrition-related programs are offered on occasion.

Advocacy

Advocacy activities intended to affect legislation and promote policies to advance cancer prevention, diagnostic, and therapeutic care in Passaic County are minimal. The American Cancer Society[g] has advocated legislation and programs that benefit Passaic County.

Clinical Trials

Clinical trials are studies designed to test new treatments or new ways to use existing treatments and to investigate new means of prevention, improving early diagnosis, monitoring quality of life, and/or studying the psychological impact of cancer.[2] As American College of Surgeons CoC-approved cancer programs, St. Joseph's Medical Center, PBI Regional Medical Center, and Chilton Memorial Hospitals must provide cancer-related clinical research onsite, by referral, or by coordinating with other facilities.[8] Although the availability of clinical trials is presented on a variety of web sites, publicity and consumer education campaigns must be established if persons who may benefit from the trials are to learn of their existence.

[g] The American Cancer Society is a nationwide, community-based voluntary health organization dedicated to helping everyone who faces cancer through research, patient services, early detection, treatment, and education, which maintains a web site and a national call center (1-800-ACS-2345 ext. 1). See www.cancer.org/.

Section 3 – Cancer Burden

All incidence[9] and mortality[10] rates cited herein are per 100,000 and age-adjusted to the 2000 U.S. population standard[11]. All county and state rates are average annual rates during 1996–2000. For simplicity, the 1996–2000 average annual age-adjusted incidence or mortality rate hereinafter will be abbreviated and referred to as incidence or mortality rate, respectively. The reason the five-year average has been routinely used is that the small number of cases in a single year leads to statistical variations that are not generally meaningful. For U.S. incidence rates, 1999 or 2000 rates were used. Unless otherwise specified, all rates are for invasive cancer only.

Overall Cancer Burden

In a limited-resource environment, the determination of the most effective and efficient allocation of cancer-related services is critical. Ultimately, resource allocation and program decisions must be based on data related to the cancer burden (both overall and for individual cancer sites) including incidence rates, death rates, and the stages at which cancer is detected.

In Passaic County, males of all races had a higher incidence rate for all cancers combined (602.3 per 100,000) compared to females (438.9). Black males had the highest incidence rate of all race/ethnicity cohorts for which separate statistics were available[h] for all cancers combined (639.5 per 100,000).[i] The incidence rate for all cancers combined among black females in Passaic County (419.4 per 100,000) was almost equal to the rate among black females in the state (414.2). Overall, Passaic County white and black residents had death rates that were equal to or lower than the rates for New Jersey; these rates were higher than the corresponding rates for the entire United States, however. Black males had the highest mortality rate in the county (319.8 per 100,000), although it was lower than the state mortality rate among black males (349.4). The following table summarizes the status of the cancer burden in the county.

[h] Separate data were available for white and black race and Hispanic ethnicity. Other minority groups raise special issues as well, related to culture, language, and access to care. Although there are concerns that minorities bear disproportionate portions of the cancer burden, their limited numbers lead to their omission from many sources of statistical data. Thus, precise numbers and rates are not readily available and are not portrayed explicitly.

[i] White males in Passaic County had an average annual age-adjusted incidence rate for all cancers combined of 598.8 per 100,000. Hispanic males had an incidence rate for all cancers combined of 504.5 per 100,000.

Table 2. Summary Table
Selected[a] Age-Adjusted[b] Passaic County Cancer Statistics, 1996–2000[c]

	Estimated Prevalence[d]	Incidence per 100,000[e]	Mortality per 100,000[e]
All Cancers,[f] Passaic County			
Male	6,488	602.3	258.1
Female	10,282	438.9	180.0
NJ-CCCP Priority Cancer by Gender			
Breast, female	3,934	133.2	31.1
Cervical, female	560	***12.8***	***3.8***
Colorectal, male	777	75.9	28.7
Colorectal, female	1,114	51.8	20.4
Lung, male	240	87.7	71.7
Lung, female	278	46.9	37.7
Melanoma, male	332	16.4	3.6
Melanoma, female	405	9.5	1.2
Oral/Oropharyngeal, male	220	16.8	***4.7***
Oral/Oropharyngeal, female	153	6.6	1.4
Prostate, male	2,609	185.4	32.6

[a] Based upon the NJ-CCCP.
[b] Age-adjusted to 2000 U.S. Census population standards. Age-adjustment is used to describe rates in which statistical procedures have been applied to remove the effect of differences in composition (specifically, variations in age distribution) of the various populations. This is important in order to portray an accurate picture of the burden of cancer, since cancer is known to disproportionately affect persons of differing ages.
[c] Rates are average annual rates during the time period 1996 through 2000.
[d] Prevalence is the measurement of burden of disease in the population at a particular point in time. Within this report, it represents the number of people alive who have ever been diagnosed with the disease. Prevalence figures given here are rough theoretical estimates, based on a number of assumptions, and computed by applying national prevalence-to-incidence ratios to Passaic County's average annual crude incidence counts for the five years 1996–2000, separately for each gender. Actual prevalence is likely to be of the same order of magnitude as the estimate.[12]
[e] Incidence and mortality are gender-specific, age-adjusted annual rates, not counts. A rate at least 10% higher than the corresponding state rate is shown in bold italics.
[f] "All cancers" represents the sum of all invasive cancer during the time period, not just the seven cancers below.

Cancer Burden by Site

In this section, we present information about cancer incidence and mortality, estimated prevalence, and the stage at which cancer was detected for the 7 NJ-CCCP priority cancers. We identify different population subgroups that may be at greatest risk for specific cancers and that may benefit most from cancer prevention and control programs. Statistics for Passaic County are compared to data for the state of New Jersey, and for the entire nation. Passaic County data are also discussed in relation to target goals for cancer presented in *Healthy New Jersey 2010*.[13]

Breast Cancer

Breast cancer was the second most prevalent cancer in New Jersey[1] and the most prevalent cancer in Passaic County. At any point in time during the period 1996–2000, an estimated 3,900

women were living with diagnosed female breast cancer in Passaic County. White women in Passaic County had a higher incidence rate (136.0 per 100,000) than black women (114.5), and represented 87% of new cases in the county. Incidence rates increased with age.

For all age and race/ethnicity cohorts, the distribution of breast cancer by stage at diagnosis in the county was similar to that of the state.[1] However, in both the county and the state, approximately 65% of cases were diagnosed at the *in situ* and localized stages. This figure is 10% lower than the *Healthy New Jersey 2010* target of 75.0%,[13] suggesting that there is a need for earlier screening and detection services and associated health education programs about breast cancer risk factors and symptoms. Among 3,923 New Jersey women aged 50 and over who were interviewed from 2000 through 2002, 78% reported having had a mammogram within the past two years.[14,15] Based on interviews of 180 women in Passaic County, the county rate did not differ significantly from the state rate.[15] However, within the county, screening rates increased significantly during the period 1992–2002, as they did in the state overall.[20]

The breast cancer mortality rate for all Passaic County women (31.1 per 100,000) was above the *Healthy New Jersey 2010* target rate (21.5 per 100,000, as recalculated using the 2000 U.S. population standard).[j,16] The breast cancer mortality rate in the county was similar to that of the state (31.3 per 100,000) and higher than that of the U.S. (27.7). The mortality rate due to breast cancer among Hispanic women was similar between the county (15.0 per 100,000) and state (16.0.).[k]

Cervical Cancer

Cervical cancer is a preventable and curable disease that should be the focus of screening and early detection.[2] Papanicolaou ("Pap") tests, which detect some precancerous as well as cancerous lesions, are covered by most private and public health insurance. Some companies now cover a more sensitive and specific screening test, the AutoPap, which analyzes a thin preparation of cells with the aid of computer-assisted technology.[2] Human papillomavirus (HPV), a sexually transmitted disease, is the most significant risk factor for developing cervical cancer; recommendations for the incorporation of HPV testing[l] as part of a pelvic examination have been developed by the American College of Obstetricians and Gynecologists.[2,17]

The cervical cancer incidence rate in Passaic County (12.8 per 100,000) was 17% higher than the state rate (10.9), and well above the *Healthy New Jersey 2010* target of 6.8 per 100,000.[j] The county-level incidence rates among those in age groups 15–39, 50–64, and 65–74 were higher than those for the same age groups statewide. The county cervical cancer incidence rates for white (11.7 per 100,000), black (19.4), and Hispanic women (18.6) were higher than the rates for

[j] All incidence and mortality rate reduction targets in the *Healthy New Jersey 2010* objectives cited in this Report Summary were recalculated using the 2000 U.S. population standard in order to compare the targets to the 1996-2000 baseline incidence and mortality rates.[16]

[k] Hispanics and non-Hispanics may be of any race. Racial categories include both Hispanics and non-Hispanics. Data on non-Hispanics is not available. Comparisons of Hispanic rates with rates for the whole population may underestimate the difference between Hispanics and non-Hispanics because Hispanics are included in the total population.

[l] For example, the ViraPap™ will detect which strains of HPV DNA, if any, are present.

white (10.1), black (17.9), and Hispanic women (15.8) across the state. The *Healthy New Jersey 2010* target incidence rate for white women is 6.7 and 7.0 for black women.[j] In both Passaic County and in New Jersey, approximately 75% of new cases during the period 1996–2000 occurred among white women. Among women aged 40–49, a higher percentage of cases were diagnosed at the regional stage in Passaic County (55%) than in the state (32%).

During the period 1996–2000, an average of 10 Passaic County women died per year from cervical cancer. The death rate due to cervical cancer for all women in the county (3.8 per 100,000) was higher than the state (3.1) or the U.S. (3.0) rates, and higher than the *Healthy New Jersey 2010* target of 1.5 per 100,000.[j] Among 7,689 New Jersey women with no history of hysterectomy who were interviewed from 2000 through 2002, 83% reported having had a Pap smear within the past three years.[14,15] Based on interviews of 377 women in Passaic County, the county rate did not differ significantly from the state rate.[15] The higher county incidence and mortality rates suggest there is a need to educate women about the risk factors for cervical cancer and the benefits of screening. Education and screening programs for all women should be continued. Interviews with the NJCEED program managers at St. Joseph's Hospital and Regional Medical Center during 2004 revealed that during the previous two years, elevated rates of the HPV were detected among black and Hispanic teenage women who were sexually active. There appears to be a need for culturally specific outreach programs to promote HPV testing among these groups of women.

Colorectal Cancer

During the period 1996–2000, the incidence rate of colorectal cancer in Passaic County was higher among men (75.9 per 100,000) than among women (51.8). White persons in Passaic County had the highest number of new cases during the 5-year period (1,244), comprising 88% and 86% of all cases among men and women in the county, respectively. This is similar to the pattern statewide (89% and 88% of cases among men and women, respectively). The colorectal cancer incidence rate among black men (78.8)[m] was slightly higher than the rate among white men (75.7) in the county, while the rates for black men (77.1) and white men (79.8) were similar statewide. Incidence rates for both sexes increased with age. Both in the county and in the state, incidence rates were higher among men than women across most age groups. The incidence rate for Passaic County black women (68.7 per 100,000) was higher than for white women (50.3), black women in the state (56.6), and black women in the U.S. (54.0).

Among men aged 75 and over, the percentage of cases of colorectal cancer diagnosed at the early stages was higher in Passaic County (46.9%) than in the state (38.8%). The Passaic County rate for the age group 40–49 (35.3%) was similar to that of the state (35.8%). The percentages of colorectal cancers diagnosed in the early stages for age groups 50–64 and 65–74 were slightly lower in the county than in the state. Among men aged 50–64, a higher percentage of cases were diagnosed at the regional stage in Passaic County (42.6%) than statewide (35.3%). Compared to

[m] During the period of 1996–2000, there was a substantially higher incidence rate (163.0) among black males in the year 1999, a rate 2.4 to 3.5 times higher than the rate for any other single year during this period, thus raising the average for the 5-year period. The 1997–2001 average annual incidence rate among black males is the same in Passaic County and New Jersey (77.5) but higher than the rate among white males in the county (72.7) for the same time period, suggesting that the rate is persistently somewhat higher among black men in the county.

the state, Passaic County had slightly higher percentages of regional stage diagnoses and slightly lower percentages of distant stage diagnoses among women in most age groups.

Colorectal cancer is highly curable. When detected early, colorectal cancer has a 90% survival rate; however, only 37% of new cases in New Jersey are diagnosed in the localized stage.[2] Among 4,961 New Jersey adults aged 50 and over who were interviewed from 2001 through 2002, 56% reported having had colorectal cancer screening (either with a fecal occult blood test within the past year or a sigmoidoscopy or colonoscopy ever).[14,15] Based on interviews of 216 adults in Passaic County, the county rate did not differ significantly from the state rate.[15]

The *Healthy New Jersey 2010* target mortality rates per 100,000 for colorectal cancer are 18.6 for all persons; 26.9 for black males; 22.1 for white males; 16.8 for white females; and 21.3 for black females.[j] The colorectal cancer mortality rates for males and females in Passaic County (28.7 and 20.4 per 100,000, respectively) were similar to the state rates (29.5 among males and 20.1 among females), but were higher than the national mortality rates (25.8 among males and 18.0 among females). The mortality rate for black males in the county (34.5 per 100,000) was higher than that of white males (28.6); these rates were similar to the state rates (35.8 among black males and 29.3 among white males). Of the 291 Passaic County females who died as a result of colorectal cancer during 1996–2000, 41 (14%) were black females. The mortality rate for black females in the county (31.9 per 100,000) was higher than the rate for white females in the county (19.3) and for black females statewide (24.5). These patterns suggest that there is a need for increased screening and outreach for high-risk populations living in Passaic County.

Lung Cancer

The average annual age-adjusted incidence rates of lung cancer for males (87.7 per 100,000) and females (46.9) of all races in Passaic County were both lower than the state rates (92.5 for men, 55.4 for women). The incidence of lung cancer increases with age. Incidence rates were higher for males than females across all age groups. The lung cancer incidence rate was higher for black males (108.1 per 100,000) than for white males in the county (84.9); a similar pattern was observed across the state (118.1 among black males, 91.0 among white males) and nation (110.7 among black males, 87.8 among white males). Black females, however, had a lower incidence rate than white females in the county (40.4 vs. 48.3 per 100,000, respectively); similar patterns were observed for the state (51.9 among black females, 57.0 among white females) and nation (50.3 among black females, 54.4 among white females).

Passaic County lung cancer mortality rates were much higher for males than for females. For all males, the county lung cancer mortality rate (71.7 per 100,000) was lower than either the New Jersey (74.9) or the United States (79.5) rate. The county lung mortality cancer rate for black males (91.5 per 100,000) was higher than the rate for white males (69.5), but lower than that for black males in New Jersey (100.0). The mortality rate among white females was lower in the county (37.8 per 100,000) than in the state (42.5), but similar among black females (41.2 in the county and 41.8 in the state). *Healthy New Jersey 2010* target mortality rates per 100,000 for lung cancer,[j] are 47.9 for males, 45.3 for black males, 47.3 for white males, 41.1 for white females, and 41.8 for black females.

Due to the lack of effective screening methods to detect lung cancer at an early stage and the limited efficacy of treatment for advanced lung cancer, survivorship of lung cancer is of shorter duration than for many other cancers. An estimated 87% of lung cancer cases are attributed to tobacco smoking,[2] suggesting that smoking prevention activities need to be expanded. Exposure to environmental tobacco smoke (ETS), or "second-hand" smoke, remains an additional important issue.[2] High-risk populations should be educated about the risk factors for lung cancer. In particular, there is a need for anti-tobacco and smoking cessation programs.

Melanoma

The high incidence of melanoma among the white population is striking, although the incidence rates among whites in Passaic County (18.4 among males and 10.7 among females) were lower than the corresponding rates for the state (23.0 among males and 13.9 among females) and the nation (20.5 among males and 13.4 among females). *Healthy New Jersey 2010* targets for reducing melanoma incidence rates per 100,000[j] are 8.5 for all persons, 12.4 for white males, 0.3 for black males, 7.7 for white females, and 0.4 for black females. Melanoma incidence rates increase for both genders with age. As in the state, the melanoma death rate was higher among men (3.6 per 100,000) than among women (1.2).

The population of focus for melanoma prevention and detection efforts is the entire white population due to their greater vulnerability to this disease. However, skin cancer education and detection programs are required for all ages, genders, and races.

Oral and Oropharyngeal Cancer

The county-level incidence rates for oral and oropharyngeal cancer were consistently higher for males than for females in all age groups. The incidence of oral and oropharyngeal cancer increases with age. Passaic County males aged 40–49 had a higher oral and oropharyngeal cancer incidence rate (20.1 per 100,000) than those in the same age group statewide (14.0). The county-level oral and oropharyngeal cancer incidence rates for females were slightly higher than the state rates for the age cohorts 50–64 (county: 14.3 per 100,000; state: 12.9) and 75+ (county: 32.6; state: 30.0). Black males (21.9 per 100,000) and females (9.6) in Passaic County had higher oral and oropharyngeal cancer incidence rates than white males (15.3) and females (6.2) in the county, a disparity observed statewide.[n]

Stage at diagnosis is the most important predictor of oral/oropharyngeal cancer survival. Cases diagnosed at early stages have a 75% or greater five-year survival rate, while cases diagnosed at late stages have a survival rate of 25% or less.[2] However, both in the county and in the state, a high percentage of oral/oropharyngeal cancer was diagnosed in the late stages (62% of all cases among males and 43% of all cases among females in the county; 58% among males and 45% among females in the state). Within the county, late-stage diagnosis of oral/oropharyngeal cancer occurred most frequently among black males (23 out of 27 cases for which the stage of disease was determined, or 85%), Hispanic males (14 out of 19 staged cases, or 74%), and Hispanic

[n] In New Jersey overall, the incidence rate was 22.8 per 100,000 among black males and 14.9 among white males, 6.9 among black females and 6.3 among white females.

females (6 out of 9 staged cases, or 67%). The *Healthy New Jersey 2010* objective is to reduce the percentages of oral/oropharyngeal cancers diagnosed in the regional and distant stages to 40.0% for white and black males (with 20.0% as a preferred endpoint) and 35.0% for white and black females (15.0% preferred endpoint).[13]

During the period 1996–2000, a total of 47 males and 19 females died from oral/oropharyngeal cancer in Passaic County. The oral/oropharyngeal cancer mortality rates were 4.7 per 100,000 among males in the county (compared to 4.2 statewide) and 1.4 among females in the county (compared to 1.6 statewide). Black males accounted for 34% of the deaths attributable to oral/oropharyngeal cancer among males during this period, corresponding to a higher countywide mortality rate for this group compared to the state (17.3 vs. 9.6 per 100,000, respectively).

Taken together, these findings suggest that special attention for screening and education for oral/oropharyngeal cancer is required for the black, Hispanic, and elderly populations. In addition, heavy alcohol and tobacco users are at the highest risk for oral/oropharyngeal cancer.[2] Thus, it is important to focus on these populations, as well as to focus on prevention.

Prostate Cancer

Of the seven NJ-CCCP priority cancers, prostate cancer is the most prevalent cancer among males in Passaic County, with an estimated 2,600 males living with diagnosed prostate cancer. Incidence rates for all age groups were similar or lower in Passaic County than for New Jersey. The incidence rate of prostate cancer increases with age: the county incidence rate for those aged 15–39 was 14.9 per 100,000 and increased to 306.0 for those aged 40–49 and to 1,110.2 for those aged 50–64. Black males had a higher incidence rate (244.4 per 100,000) than white males (181.0) in Passaic County, but lower than black males statewide (282.9). Hispanic males in the county also had a high incidence rate (200.2 per 100,000), slightly higher than for Hispanic males in New Jersey (189.3).

The distribution of prostate cancer by stage at diagnosis for all races in the county was similar to the distribution for the state. Although diagnosed at the regional stage less frequently than white males (2.8% vs. 7.4%), black males were diagnosed at the distant stage (10%) more than twice as often as white males (3.7%). The percentages of cases in the county diagnosed at the distant stage were 5.2% for the 50–64 age group (2.8% statewide) and 3.6% for the 65–74 age group (3.2% statewide). The death rate due to prostate cancer among black males (56.8 per 100,000) was 85% higher than that of white males in the county (30.7), but lower than that of black males statewide (68.9). The *Healthy New Jersey 2010* target rates per 100,000 for prostate cancer mortality are 25.7 for white males and 56.1 for black males.[J] Based on the relatively higher incidence and mortality rates among this group, the population of focus for preventive education and screening programs is the black male population.

Other Cancer Sites/Issues

HIV/AIDS. The human immunodeficiency virus (HIV) is the etiologic agent of the acquired immunodeficiency syndrome (AIDS) and is associated with the development of several specific

cancers.[2] Although incidence and mortality have been declining between 1993 and 2003, with fewer than 5 deaths recorded in 2003, Passaic County ranks 3rd among all New Jersey counties in prevalence for HIV/AIDS.[18] Both healthcare providers and patients need to understand the risks associated with HIV/AIDS.

Bladder cancer. New Jersey's bladder cancer incidence rates are higher than the national rates for all race and ethnic categories.[10] Mortality due to bladder cancer is higher in New Jersey than in the nation overall. The American Cancer Society estimated that in 2003 bladder cancer would be the 6th most common cause of cancer mortality in the U.S. and 5th most common in New Jersey.[19] In Passaic County, bladder cancer incidence and mortality rates were generally lower than in the state; however the county and state mortality rates for males were similar.

Section 4 – Discussion, Analysis and Recommendations

Based on consideration of the demographic and social profile of Passaic County, central issues concerning the health system in this county, and the individual characteristics of the seven cancer sites studied, we developed the following set of recommendations for improving the Passaic County cancer care system and its coordination. The following goals and objectives are addressed to the Passaic Cancer Coalition and the county's Public Health Partnership, to the NJDHSS and other divisions of state government, and to the provider community that generates the cancer services.

Recommendations for County and Local Priorities

Goal 1 – Create an infrastructure to develop a Passaic County Cancer Control Plan. A Passaic County Cancer Coalition (PCCC), comprised of local institutions, is required to generate the cooperative activities required to strengthen the cancer system. The PCCC will implement policies of and utilize cancer information available from the NJDHSS.

Goal 2 – Coordinate cancer control and prevention activities. Ensure that the activities of the PCCC and the Passaic County Public Health Partnership are coordinated with the activities of the NJDHSS Task Force on Prevention, Early Detection and Treatment.

Goal 3 – Initiate a program of cancer services advocacy. We recommend that the goals and objectives set forth in this Report be incorporated in the Passaic County Community Health Improvement Plan (CHIP). These goals and objectives will provide the basis for cancer services advocacy conducted for the purpose of obtaining funding for service origination and expansion. Advocacy efforts should be directed to Passaic County municipal government, the Passaic County Freeholders, and Passaic County representatives to the State Assembly and Senate.

Goal 4 – Provide programs of health professional education. We recommend that the Partnership and the PCCC participate in state-level activities involving educating health professionals and promoting access to expertise not available in Passaic County – in particular information that improves communication of service providers with diverse ethnic and language populations.

Goal 5 – Create a Passaic County Cancer Control Plan. We regard the accomplishment of Goals 1–4 as the necessary predecessors to recruiting and training many of the organizations and individuals that will contribute to the creation of the Passaic Cancer Control Plan. The following objectives describe the initiation and development of this plan as well as the components of the cancer care system:

- **PAS Plan Objective 1.** Assess the needs of all Passaic County residents for cancer services every five years.
- **PAS Plan Objective 2.** Conduct a countywide survey of health providers during a five-year cycle of research and assessment to identify staffing, physical plant, and equipment needs.
- **PAS Plan Objective 3.** Maintain a directory of all cancer resources in Passaic County and ensure that this directory is updated on an annual basis.
- **PAS Plan Objective 4.** Maintain information that assesses and assists the cancer resource planning efforts of public and private institutions.
- **PAS Plan Objective 5.** Initiate programs to identify the specific characteristics of high-risk cancer populations of focus located in southern Passaic County.
- **PAS Plan Objective 6.** Continue and expand anti-tobacco and smoking cessation programs.
- **PAS Plan Objective 7.** Explore the availability of state-of-the-art cancer expert consultation from cancer centers such as Fox Chase, Memorial Sloan Kettering, and the Cancer Institute of New Jersey.
- **PAS Plan Objective 8**. Plan to coordinate the delivery of services of the two NJCEED Programs operating in Passaic County with the goal of reaching more persons and achieving economies of scale.
- **PAS Plan Objective 9.** Promote policies that encourage Passaic County health providers to conduct cancer screening procedures at the time of contact of medical or health services with individuals who need these services.
- **PAS Plan Objective 10.** Utilize cancer survivors to provide cancer-related information to their peers who have similar cultural backgrounds.
- **PAS Plan Objective 11.** Create policies and incentives to achieve agreement among all county hospitals and health service providers to assume responsibility for the provision of some free or low-cost cancer services to the populations of focus.
- **PAS Plan Objective 12.** Provide cancer-related health education programs for physicians and other health care professionals to expand their knowledge of the resources available to them and to promote their use.
- **PAS Plan Objective 13.** Identify ways to increase utilization of smoking cessation programs among high-risk persons.
- **PAS Plan Objective 14.** Create and promulgate, in English and Spanish, a simple health self-assessment tool that informs readers of cancer-related risks and provides a listing of relevant county and regional resources. Make the tool available at county libraries, pharmacies, beauty shops, barbershops and physicians' and dentists' offices.

Recommendations for Statewide Priorities

The benefit of instituting a new cancer control system is that expanded cancer services will be available to those who require them. The recommendations listed below are designed to assist with the development of a cancer services system that is coordinated at the state and local levels and actively maintained by organizations and individuals in Passaic County. The objectives below are related to organizational activities (ORG), activities to strengthen cancer-related services (SVCS), and areas for further study and dissemination of research information (STUDY).

Goal 1 – Strengthen and support the Passaic County Cancer Coalition and other cancer coalitions.

- **PAS ORG Objective 1**. Create a coordinated NJDHSS and PCCC agenda so that the mutually desirable coordination of state and county activities can be achieved.
- **PAS ORG Objective 2.** Fund the PCCC and hold it accountable for its operations to plan and develop a local cancer control plan and system.
- **PAS ORG Objective 3.** Continue to publicize the NJ-CCCP as the state plan for comprehensive cancer control and prevention.

Goal 2 – Support cancer services delivery programs delivered locally.

- **PAS SVCS Objective 1.** Strengthen the Passaic County NJCEED Program's ability to provide additional services. Skin cancer screening and outreach programs for the elderly are recommended.
- **PAS SVCS Objective 2**. Strengthen NJCEED Program case management and health system navigation services.
- **PAS SVCS Objective 3**. Increase New Jersey hospitals' provision of low-cost and free cancer care to low-income persons.
- **PAS SVCS Objective 4.** Utilize county cancer coalitions to provide professional education programs.

Goal 3 – Initiate and disseminate cancer-related studies that inform local cancer system planners and health services providers.

- **PAS STUDY Objective 1.** Research and publish the best practices of culturally relevant outreach and health education programs.
- **PAS STUDY Objective 2**. Disseminate information on the statewide database of cancer resources (CRDNJ) and how it can be used by local health service providers and consumers.
- **PAS STUDY Objective 3**. Identify the geographic locations of the populations of focus. Priorities in this area include identify the location and cultural characteristics of new ethnic immigrant groups from Central and South America and the Middle East for the purpose of facilitating these groups' use of the health care system.

- **PAS STUDY Objective 4.** Identify the availability and type of palliative care and cancer survivor services that exist statewide. It is not well known what services are available from organizations serving Passaic County, or what range of services is actually provided. As the number of persons living with cancer increases, the need for support services will increase.
- **PAS STUDY Objective 5**. Identify the extent of the public's knowledge of cancer risk factors. Earlier detection of cancer is more likely to occur among persons who are made aware of the associated risk factors and symptoms and who can respond to their observation with positive behaviors. Assessing the level of risk factor awareness can result in an improved understanding of the types of health education programs that are required.

Cancer Site-Specific Recommendations

Breast Cancer

1. Efforts should be increased to provide education about risk factors and the availability of resources for screening to all women – particularly those aged 40 and older.
2. Special efforts should be mounted to implement the legally required education programs in the county's schools. These programs will teach adolescents self-examination techniques and risk factors for cancer.
3. Continue providing and expanding long-term support services. The long-term needs of financially disadvantaged women diagnosed with breast cancer and living in southern Passaic County should be assessed.
4. Create specialized outreach programs such as culturally appropriate screening and education programs.

Cervical Cancer – The elevated county incidence and mortality rates, the high percentage of regional diagnosis, and the possible increase in incidence of HPV discussed above requires increased attention to this cancer in Passaic County.

1. Screening efforts should be directed to all women who are sexually active and, in particular, to black and Hispanic populations of focus.
2. Educate women of all ages about cervical cancer risk factors and screening resources. Adolescent women should receive culturally appropriate cervical cancer risk factor education as part of sex education courses.
3. Establish referral processes among the county NJCEED programs and the STD clinic at St. Joseph's Medical Center, Planned Parenthood clinics, and the FQHC for follow-up care of females diagnosed with HPV during screening.

Colorectal Cancer – The high incidence of colorectal cancer among Passaic County men, as well as the high colorectal cancer incidence and mortality rates among black men and women, call for increased education, screening, and outreach efforts.

1. Colorectal cancer screening and programs of nutrition and fitness should be promoted among the population in southern Passaic County.
2. All men and women aged 40 years and older should be encouraged to receive colorectal cancer screening. Programs encouraging the use of the fecal occult blood tests (FOBT) and colonoscopies are recommended. Consideration should be given to providing low-cost or free testing to persons with high-risk characteristics.
3. People of all ages should receive education about colorectal cancer risk factors and information on available screening resources.
4. Identify health attitudes and priorities of the population of focus.

Lung Cancer – The elevated incidence rates for persons aged 40 and over calls for increased attention to lung cancer in Passaic County. High incidence and mortality rates among men – particularly black men – suggest that education, experimental screening, and outreach efforts are needed. The population located in southern Passaic County, in particular the black population, should be the focus of smoking prevention outreach and education campaigns.

1. As suggested by NJ-CCCP Objective LU-3.1, PCCC is recommended to monitor studies examining the effectiveness of low radiation dose spiral computer tomography (CT) scans as a screening method in terms of reducing lung cancer mortality. The PCCC should consider organizing a local opportunity to participate in a clinical trial studying low radiation dose spiral CT scans.
2. Expanded education efforts promoting smoking prevention and cessation, as well as programs that teach the dangers of smoking and second-hand exposure are recommended. The PCCC should use the broad range of education and program planning resources identified in the Morris Regional Public Health Partnership *Environmental Tobacco Smoke Toolkit*.[1]
3. Municipal and county public health educators should become involved in a collaborative effort with the Passaic County Cancer Coalition to stimulate the creation of programs related to cancer prevention and risk factor education.
4. The PCCC should consider joining the American Cancer Society, New Jersey Group Against Smoking Pollution (NJGASP), and other related organizations in their advocacy to support the proposed New Jersey Clean Air Bill.

Melanoma – Older white individuals are at greatest risk for melanoma.

1. Melanoma should be the subject of expanded education efforts regarding risk factors and symptoms to be directed to consumers and health professionals.
2. The NJDHSS should consider some form of regulatory oversight of tanning parlors, including requiring that tanning parlors provide educational information about the risk factors of melanoma to their customers.

3. Special education programs should be developed and made available to persons engaged in outdoor employment and recreational activities.

Oral and Oropharyngeal Cancer – High percentages of regional and distant stage diagnosis in Passaic County, in particular for black men and Hispanic men and women, call for increased education, screening, and outreach efforts.

1. Special screening efforts should be directed to all men and women over 40 years of age.
2. Alcohol abuse and tobacco use are risk factors for several cancers including oral and lung cancers. Efforts to increase awareness of risk factors and resource availability for screening should be provided to persons of all ages. A portion of such efforts could be coupled with anti-tobacco programs and programs engaged with alcoholism.
3. The Passaic County Cancer Coalition should initiate efforts to advocate for and assist in the provision of Medicaid-reimbursed dental services to low-income persons throughout the county.

Prostate Cancer – Elevated incidence rates for men aged 50 and over calls for increased attention to this cancer in Passaic County.

1. Outreach efforts to provide education and counseling on screening options to men – black men in particular – should be increased. This information should be provided regularly, commencing at an early age.
2. Efforts to provide education and offer nutrition and fitness programs to men in Passaic County – particularly black men and Hispanic men – should be increased. Consideration should be given to providing low-cost or free testing to persons with high-risk characteristics.

Closing Remarks

The organization of independent institutions and programs in a geographic area into a cooperative whole to address the problems of the cancer burden for the public benefit is a large and complex undertaking. It will require interest, money, and diplomacy to make it happen. We have better information today to build the system than we did just a few years ago. The creation of a Passaic County Cancer Care System is possible.

The Cancer Capacity and Needs Assessment Report provides a detailed baseline assessment for Passaic County. The data, interpretations, and recommendations in this report were developed to provide a wide array of public health and medical personnel with standardized information and detailed analyses that can help guide and focus their efforts at the county level, including such local health initiatives as the forthcoming Community Health Improvement Plans. The reports from all of the counties will collectively inform the continuing comprehensive cancer control efforts of the Office of Cancer Control and Prevention of the New Jersey Department of Health and Senior Services, the Governor's Task Force on Cancer Prevention, Early Detection and Treatment in New Jersey, and the University of Medicine and Dentistry of New Jersey.

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