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The Office of Cancer Control and Prevention
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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 the New Jersey Department of Health and Senior Services (NJDHSS) Office of Cancer Control and Prevention (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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Camden 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 serves as a highlight of some of the key findings in the Camden County report.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) county programs in Camden County: Cooper Hospital NJCEED program and the NJCEED program at the Fox Chase Virtua Health Cancer Program.

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 Camden County Cancer Capacity and Needs Assessment Report (C/NA) 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 address cancer control priorities at local and state levels.

Method of Preparing the Camden County Cancer Capacity and Needs Assessment

In January 2003, the Camden County NJCEED program directors contracted with CAMConnect: Linking Communities with Information, based in Camden City, to conduct the evaluation and analysis and to prepare the county report. The year included regular meetings of the County Evaluators at the state level for training, guidance, peer-learning, and peer-review of the county reports. During the past six months, the consultant has been responsive to requests from the Camden County NJCEED Cancer Coalition, the South Jersey Cancer Coalition of the American Cancer Society (ACS), and the Camden County Department of Health and Human Services to
report on preliminary findings, seek their feedback, and receive their suggestions for recommendations and future steps to be taken. From August 2003 through March 8, 2004, primary data were collected through responses to the Cancer Resource Database of New Jersey (CRDNJ) survey involving over 300 healthcare providers, organizations, schools, employers, and various cancer programs and services, in an effort to assess the capacity of county agencies and health providers to meet the county’s cancer needs.

Reducing the Cancer Burden

The goal of NJ-CCCP is to reduce the burden of cancer for all New Jersey residents. Many types or forms of cancer can be prevented. It is important to provide New Jersey residents with the information they need to avoid behaviors that increase their chances of developing cancer. Other cancers can be detected early and treated, controlled, or cured. Data about these kinds of cancer and the potential to survive them once they are detected must be disseminated broadly. Access to high-quality cancer screening 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 residents deserve access. These are the aims of the NJ-CCCP and will, once achieved, reduce the burden of cancer in Camden County.

Section 1 – County Demographic Profile

Camden County is located in the southern third of the state, on the Delaware River, and is an important gateway from the Philadelphia area to South Jersey. It is bordered on the north by Burlington County, on the southwest by Gloucester County, and in the southeast by Atlantic County. The county had 508,932 persons as of April 2000, a figure that represents 6% of the New Jersey population. There are 37 municipalities in the county, with the largest city being Camden City (population of 79,904), and the smallest township being Pine Valley (population of 20). Highlights of Camden County demographics include the following:

- The six largest municipalities (population >25,000) – Camden City, Cherry Hill, Gloucester Township, Pennsauken, Voorhees, and Winslow Township – are home to 80% of the 92,950 black residents of Camden County and 82% of the 49,166 persons of Hispanic ethnicity. In Camden County, 18% of the population is black, compared to 14% in New Jersey as a whole. Residents of Hispanic ethnicity comprise 9.7% of the population in Camden County and 13% in New Jersey.

- The Asian population comprises 3.7% of Camden County’s population. Of the 3,145 Vietnamese residents (0.6% of the total population), 83% live in Camden City, Cherry Hill, Pennsauken, and Woodlynne municipalities. Voorhees Township has the largest percentage of Asian residents of various cultural backgrounds (11%).

- Persons aged 65 years and older comprise 12.5% of Camden County’s population and 13.2% of the state population.

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a In general, percentages in this report are rounded to two digits.
b Hispanics and non-Hispanics may be of any race. Racial categories include both Hispanics and non-Hispanics.
In 1999, a higher percentage of families in Camden County lived below the federal poverty level (8.1%) than in the state of New Jersey (6.3%). The median income for Camden County households was $48,097, which was 13% lower than the median for the state ($55,146).

In 13 of the county’s municipalities, at least 10% of the residents in at least one of the following categories had incomes below the federal poverty level: all ages; related children under the age of 18 years; adults aged 65+; or families. Compared to other municipalities, the percentages of individuals in these groups living below the federal poverty level are two to three times higher in Camden City. For example, 33% of Camden City families and 36% of all Camden City residents had incomes below the federal poverty level; the municipalities with the next highest percentages are Woodlynne (12% of families with incomes below the poverty level) and Cheslihurst (15% of residents with incomes below the poverty level).

The percentages of households speaking Spanish as its first language range from 36% in Camden City to 13% in Pennsauken to 3.1% in Cherry Hill Township. The percentages of Spanish-speaking “linguistically isolated” households range from 29% of families in Camden City to 14% of Pennsauken families and 4.2% of families in Cherry Hill Township.

Section 2 – Overview of Overarching Issues

Camden County does not have a comprehensive cancer control plan such as the NJ-CCCP. There are active coalitions such as the Camden County NJCEED Coalition, the South Jersey Cancer Coalition of the American Cancer Society, and the Camden City Healthy Futures Committee. Over 300 agencies, organizations, healthcare institutions, schools, and health programs participated in the CRDNJ process during 2003–2004 (see Appendix C1 of the C/NA). A total of 57 different activities reaching all ages, races, genders, and ethnic groups were identified (see Appendix C2 of the C/NA). A total of 89 healthcare providers shared information about their services and programs, including cancer prevention education, screening activities, early detection, cancer diagnosis, and treatment, and care for cancer patients and their families. The overarching issues of the NJ-CCCP as they apply to Camden County are addressed in Section 2 of the C/NA on Access and Resources, Comprehensive School Health Education, Providers and Treatment, Advocacy, Palliative Care, Nutrition and Physical Activities, and Childhood Cancer.

On the following page, a chart summarizes information on the types of providers who participated in the CRDNJ process. Healthcare providers included any provider or organization that serves Camden County residents. For example, there are eight hospitals in the database, two of which are in a neighboring county but provide services to Camden County residents. Hospices and radiology providers have multiple counties in their service areas as well.

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c All figures for poverty, income, and employment are from the 2000 Census, but refer to the year 1999.
d A linguistically isolated household is one in which no member 14 years old and over (1) speaks only English or (2) speaks a non-English language and speaks English “very well”. In other words, all members 14 years old and over have at least some difficulty with English.
Table 1. Summary of Responses to the 2003 CRDNJ

<table>
<thead>
<tr>
<th>Facility or Activity Type</th>
<th>Total Number of Forms Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>309</td>
</tr>
<tr>
<td>American Cancer Society - Activity Forms</td>
<td>14</td>
</tr>
<tr>
<td>Breast Oncologist</td>
<td>1</td>
</tr>
<tr>
<td>Cancer Center</td>
<td>1</td>
</tr>
<tr>
<td>Complementary and Alternative Medicine Centers</td>
<td></td>
</tr>
<tr>
<td>Located in Camden County</td>
<td>2</td>
</tr>
<tr>
<td>Located outside of Camden County</td>
<td>1</td>
</tr>
<tr>
<td>FQHC - 5 different Sites*</td>
<td>5</td>
</tr>
<tr>
<td>Free Standing Clinics</td>
<td>4</td>
</tr>
<tr>
<td>Clinic Activity Forms</td>
<td>1</td>
</tr>
<tr>
<td>Dentist</td>
<td>4</td>
</tr>
<tr>
<td>Dermatologist</td>
<td></td>
</tr>
<tr>
<td>Located in Camden County</td>
<td>6</td>
</tr>
<tr>
<td>Located outside of Camden County</td>
<td>5</td>
</tr>
<tr>
<td>Employer</td>
<td>4</td>
</tr>
<tr>
<td>Faith–Based Organization</td>
<td>19</td>
</tr>
<tr>
<td>Gynecology, Oncologist</td>
<td>1</td>
</tr>
<tr>
<td>Hematology/Oncology*</td>
<td></td>
</tr>
<tr>
<td>Located in Camden County</td>
<td>2</td>
</tr>
<tr>
<td>Located outside of Camden County</td>
<td>1</td>
</tr>
<tr>
<td>Hospital*</td>
<td>8</td>
</tr>
<tr>
<td>6 in Camden County</td>
<td></td>
</tr>
<tr>
<td>2 in Burlington County</td>
<td></td>
</tr>
<tr>
<td>Non-Profit Organization</td>
<td></td>
</tr>
<tr>
<td>Located in Camden County</td>
<td>5</td>
</tr>
<tr>
<td>Located outside of Camden County</td>
<td>1</td>
</tr>
<tr>
<td>Obstetrician/Gynecologist (not located in Camden County)</td>
<td>1</td>
</tr>
<tr>
<td>Palliative Care*</td>
<td></td>
</tr>
<tr>
<td>Located in Camden County</td>
<td>3</td>
</tr>
<tr>
<td>Located outside of Camden County</td>
<td>6</td>
</tr>
<tr>
<td>Palliative Care Program Activity Forms</td>
<td></td>
</tr>
<tr>
<td>Located in Camden County</td>
<td>4</td>
</tr>
<tr>
<td>Located outside of Camden County</td>
<td>5</td>
</tr>
<tr>
<td>Primary Care Provider</td>
<td>18</td>
</tr>
<tr>
<td>Pediatric Oncology</td>
<td>1</td>
</tr>
<tr>
<td>Programs/Activities from Virtua Fox Chase Cancer Center</td>
<td>17</td>
</tr>
<tr>
<td>Program of Hospital</td>
<td>3</td>
</tr>
<tr>
<td>Radiation and Chemotherapy*</td>
<td></td>
</tr>
<tr>
<td>Located in Camden County</td>
<td>1</td>
</tr>
<tr>
<td>Located outside of Camden County</td>
<td>1</td>
</tr>
<tr>
<td>Radiology*</td>
<td></td>
</tr>
<tr>
<td>Located in Camden County</td>
<td>12</td>
</tr>
<tr>
<td>Located outside of Camden County</td>
<td>5</td>
</tr>
<tr>
<td>Schools</td>
<td>132</td>
</tr>
<tr>
<td>Screening Program</td>
<td>4</td>
</tr>
<tr>
<td>Other Programs with Screening Activities</td>
<td>6</td>
</tr>
<tr>
<td>Surgery Center</td>
<td></td>
</tr>
<tr>
<td>Located in Camden County</td>
<td>4</td>
</tr>
<tr>
<td>Located outside of Camden County</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: 2003 CRDNJ, June 10, 2004
For services marked by an asterisk (*) in the summary table, 100% of providers in the county for that particular service supplied information to the CRDNJ. For Camden County this reflects 100% participation by hospitals, palliative care providers, federal qualified health centers, radiation and chemotherapy, radiology, and oncology service providers.

The CRDNJ process of collecting cancer resource information at the county level was the first such comprehensive assessment ever conducted and needs to be continued. Further, a process for updating current resources and activities will be needed. We received only 57 Activity forms, and two organizations (American Cancer Society and Fox Chase Virtua Health Cancer Program) identified more than one-half of those activities and programs. Of the 89 providers that submitted healthcare forms, 42 did not include any types of activities and programs. For example, not all participants who conduct outreach activities completed Activity Forms for the 2003 CRDNJ survey. Cancer prevention and awareness activities (e.g., education, outreach, and support groups for patients and family) are underrepresented in the Camden County responses.

Gaps that were identified through this cancer resource assessment include the following:

- During 1993–1997, a series of health assessments were conducted by Health Visions, Inc., including a survey of southwestern New Jersey residents (1993), a study to assess health status in Camden City (1995), and a general health needs assessment in Camden County (1997). These studies documented consumer and physician perspectives on general health, access to healthcare, needs of the elderly, cancer screening, as well as prevention and health promotion issues related to cancer. These studies suggest that cancer is one of the top health issues/concerns and that disparities in screening rates and other healthcare issues exist among different age, racial/ethnic, and income groups in Camden County. However, updated county- and city-level information about this topic is needed.

- There is a 10-year gap since the last assessment of healthcare providers’ contributions to prevention, screening, and early detection of cancer.

- The Camden County NJCEED programs are using their resources maximally, reaching uninsured and underinsured men and women with incomes below 250% of the federal poverty level. However, both federal and state NJCEED funding sources only cover 18% of the eligible population for breast and cervical cancer screening. There is no federal funding for colorectal and prostate cancer screening.

- A wide variety of activities and programs are represented in the 2003 CRDNJ, but a 2003 pilot survey suggested that many participants from community-based organizations were unsure about the adequacy or availability of cancer services in the county.

- Night hours are available for 32 (56%) out of the 57 programs/activities. A limited number of weekend programs/activities for cancer education and awareness are available in the county: only 15 out of 57 Activity form respondents (24%) reported having weekend programs and education services.

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\(^\text{e}^\) Health Visions, Inc. is a private, non-profit subsidiary of the Community Planning and Advocacy Council (CPAC) in Camden County and served as the Local Advisory Board for Region V.
• The 2003 CRDNJ survey resulted in the submission of 57 Activity forms on community cancer prevention interventions. Not all respondents completed a separate Activity Form for each of their different outreach programs. The highest number of Activity forms (18 or 32%) was submitted for adult prevention initiatives in community settings, while only one community intervention cancer program/activity targeted youth.

• Of the 49 schools that include grade 7 or higher (up to grade 12), only 33% of schools indicated that breast self-exam for girls was taught and 22% of schools indicated that testicular self-exam for boys was taught. These skills for early screening of breast cancer and testicular cancer are appropriate and recommended in the curriculum standards.

• The CRDNJ Healthcare form did not have a question specifically on palliative care programs and pain management. Under the section on Complementary and Alternative Medicine (CAM), 29% of the 89 respondents indicated that “other pain control” was provided as part of their CAM services.

• In the United Way 2003 survey, 500 Camden County residents were asked to identify the top priority problem for their households. Many residents indicated that their top priority problem is lack of affordable healthcare. Thirteen percent of Camden County residents lack health insurance.

• The County Evaluator concluded that there are no major gaps in actual cancer services for diagnosis and treatment within Camden County.

Section 3 – Cancer Burden

All incidence and mortality rates cited herein are per 100,000 and age-adjusted to the 2000 U.S. population standard. 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.

Cancer is the second leading cause of death, after cardiovascular disease, both in New Jersey and in Camden County, with an average of 1,135 deaths due to cancer in Camden County per year during the period 1996–2000.

Incidence Rates for All Cancer Sites

The Camden County cancer incidence rates for all cancer sites combined among males (626.8 per 100,000 population) and females (447.9) were similar to the state rates (males: 628.7; females: 453.7). The incidence rate of all cancer sites combined was over one-third higher among males than among females in Camden County.

Table 2 shows the incidence rates of all cancer sites combined and suggests a pattern of inequalities among minority groups. Black males had a 12% higher rate of new cancers diagnosed compared to white males in the county. The incidence rate among Hispanic males in
the county was similar to the county rate for all males, but was 20% higher than the state rate for Hispanic males. Among Hispanic females, the county incidence rate for all cancer sites combined was 16% higher than the corresponding state rate.

### Table 2.
Age-Adjusted Incidence Rates per 100,000 for All Cancer Sites and All Ages in Camden County and New Jersey by Gender, Race, and Hispanic Ethnicity, 1996–2000*

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Black</th>
<th>All Races</th>
<th>Hispanic Ethnicity**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camden County</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>622.4</td>
<td>699.0</td>
<td>626.8</td>
<td>645.0</td>
</tr>
<tr>
<td>Females</td>
<td>459.0</td>
<td>417.8</td>
<td>447.9</td>
<td>421.5</td>
</tr>
<tr>
<td>New Jersey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>625.2</td>
<td>716.5</td>
<td>628.7</td>
<td>539.1</td>
</tr>
<tr>
<td>Females</td>
<td>464.9</td>
<td>414.2</td>
<td>453.7</td>
<td>363.8</td>
</tr>
</tbody>
</table>

* All rates are age-adjusted to 2000 U.S. Census population standards and are average annual rates during the period 1996 through 2000.

** Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.

### Mortality Rates for All Cancer Sites

The death rates for all cancer sites combined in Camden County were 8% higher for males of all races and 7% higher for females of all races than the respective state rates (Table 3). Of New Jersey’s 21 counties, Camden County ranked 3rd highest in mortality due to cancer among males and 4th highest among females. Table 3 shows disparities in cancer death rates between the black and white populations. Black males had a 23% higher mortality rate than did white males in the county; this was similar to the pattern statewide. Black females had a 7% higher mortality rate than did white females despite having a 9% lower cancer incidence rate than white females in the county. The mortality rates in the county were 8% and 7% higher among white males and females, respectively, than the corresponding state rates. Hispanics had mortality rates that were 41% and 30% higher in Camden County than in New Jersey for males and females, respectively.

### Table 3.
Age-Adjusted Mortality Rates per 100,000 for All Cancer Sites and All Ages in Camden County and New Jersey, 1996–2000*

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Black</th>
<th>All Races</th>
<th>Hispanic Ethnicity**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camden County</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>277.2</td>
<td>342.1</td>
<td>281.8</td>
<td>211.8</td>
</tr>
<tr>
<td>Females</td>
<td>195.1</td>
<td>207.9</td>
<td>194.9</td>
<td>120.5</td>
</tr>
<tr>
<td>New Jersey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>256.5</td>
<td>349.4</td>
<td>261.1</td>
<td>150.0</td>
</tr>
<tr>
<td>Females</td>
<td>182.0</td>
<td>202.8</td>
<td>181.6</td>
<td>92.6</td>
</tr>
</tbody>
</table>

* All rates are age-adjusted to 2000 U.S. Census population standards and are average annual rates during the period 1996 through 2000.

** Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.

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f Hispanics and non-Hispanics may be of any race. Racial categories include both Hispanics and non-Hispanics. Some tables include summaries for white and black race and for Hispanic ethnicity. 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.
Estimated Prevalence of Cancer

Prevalence gives an estimate of the number of people who are alive after the diagnosis of cancer at a given point in time. In Camden County, at any point in time during the period from 1996 through 2000, it is estimated that there were over 18,000 men and women who have ever been diagnosed with cancer (all cancers, not just the NJ-CCCP priority cancers), which represents 3.6% of the county population.\textsuperscript{11}

Table 4 provides a summary of the county’s prevalence estimates, incidence rates, and mortality rates for all cancers and for the seven NJ-CCCP priority cancers.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
 & Estimated Prevalence\textsuperscript{d} & Incidence per 100,000\textsuperscript{e} & Mortality per 100,000\textsuperscript{e} \\
\hline
\textbf{All Cancers, Camden County} & & & \\
\hline
Male & 7,327 & 626.8 & 281.8 \\
Female & 11,210 & 447.9 & 194.9 \\
\hline
\textbf{NJ-CCCP Priority Cancer by Gender} & & & \\
Breast, female & 4,060 & 128.0 & \textbf{34.6} \\
Cervical, female & 485 & 10.5 & 2.3 \\
Colorectal, male & 897 & 81.1 & 30.5 \\
Colorectal, female & 1,382 & 59.9 & 19.7 \\
Lung, male & 316 & \textbf{107.0} & 87.5 \\
Lung, female & 377 & \textbf{60.1} & \textbf{47.5} \\
Melanoma, male & 308 & 14.1 & 5.5 \\
Melanoma, female & 369 & 8.1 & 1.5 \\
Oral/Oropharyngeal, male & 248 & 17.3 & 4.5 \\
Oral/Oropharyngeal, female & 132 & 5.4 & 1.2 \\
Prostate, male & 2,660 & 172.0 & 33.6 \\
\hline
\end{tabular}
\caption{Summary Table of Selected\textsuperscript{a} Age-Adjusted\textsuperscript{b} Camden County Cancer Statistics, 1996–2000\textsuperscript{c}}
\end{table}

\textsuperscript{a} Based upon the NJ-CCCP
\textsuperscript{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.
\textsuperscript{c} Rates are average annual rates during the time period 1996 through 2000.
\textsuperscript{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 Camden 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.\textsuperscript{11}
\textsuperscript{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.
\textsuperscript{f} “All cancers” represents the sum of all invasive cancer during the time period, not just the seven NJ-CCCP cancers.
Highlights of Camden County incidence rates for the seven NJ-CCCP priority cancers during the 1996–2000 period:

- The seven priority cancers of the NJ-CCCP accounted for 62.5% of new cases of cancer in men and 60.7% of new cases in women each year in Camden County. The top four cancer sites by incidence in Camden County were prostate cancer in men (172.0 per 100,000); breast cancer in women (128.0); lung cancer in men (107.0) and women (60.1); and colorectal cancer in men (81.1) and women (59.9).

- Incidence rates for cancer increase dramatically with age. All seven priority cancers in the NJ-CCCP have this pattern with increasing rates of cancer with age. The top two cancer sites are presented as examples. In Camden County, the prostate cancer incidence rate for 50- to 64-year-old men was 329.0 per 100,000 and increased to 892.4 per 100,000 for men aged 75+. The breast cancer incidence rate for women in the age group 40–49 was 154.5 per 100,000, and increased to 432.2 per 100,000 for women aged 75+.

- Black men in Camden County had higher incidence rates for prostate cancer (242.7 per 100,000) and lung cancer (123.1) than did white males (prostate: 162.1; lung: 105.5), which was consistent with the statewide picture. Hispanic men in the county had higher incidence and mortality rates of colorectal cancer than in the state overall (see section on colorectal cancer below).

- White women had higher incidence rates for breast cancer (131.2 per 100,000) and lung cancer (62.0) than did black women (breast: 118.5 and lung: 56.4), which was consistent with the statewide pattern. Though not a statistically significant trend, the high colorectal cancer incidence rate for Hispanic women (71.5), compared to all women (59.9), needs to be further evaluated. This rate was also higher than the corresponding state rate (46.8).

Top Cancers in Camden County – Prostate, Breast, Lung, and Colorectal Cancer

For men in Camden County, prostate cancer was the cancer with the highest incidence rate, followed by lung cancer and colorectal cancer. For women in Camden County, breast cancer was the cancer with the highest incidence rate, followed by lung cancer and colorectal cancer. These four cancers represented 55% of all new cases of cancer among women and 57% of all new cases of cancer among men in Camden County each year. Incidence and mortality rates of cancer were higher for males than females.

Table 5. Three Most Common Cancer Diagnoses in Men in Camden County, 1996–2000

<table>
<thead>
<tr>
<th></th>
<th>Prostate Cancer</th>
<th>Lung Cancer</th>
<th>Colorectal Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incidence Rate 7</td>
<td>Regional/</td>
<td>Death Rate 8</td>
</tr>
<tr>
<td>Total Men</td>
<td>172.0</td>
<td>12.3%</td>
<td>33.6</td>
</tr>
<tr>
<td>White</td>
<td>162.1</td>
<td>11.5%</td>
<td>30.9</td>
</tr>
<tr>
<td>Black</td>
<td>242.7</td>
<td>14.6%</td>
<td>59.8</td>
</tr>
<tr>
<td>Hispanic</td>
<td>206.2</td>
<td>13.5%</td>
<td>45.3</td>
</tr>
</tbody>
</table>

Rates are per 100,000 age-adjusted to 2000 population.

a-Based on a low number of cases
Table 6. Three Most Common Cancer Diagnoses in Women in Camden County, 1996–2000

<table>
<thead>
<tr>
<th></th>
<th>Breast Cancer</th>
<th>Lung Cancer</th>
<th>Colorectal Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incidence Rate 7</td>
<td>Regional/Distant Stage at Diagnosis 7</td>
<td>Death Rate 8</td>
</tr>
<tr>
<td>Total Women</td>
<td>128.0</td>
<td>29.3%</td>
<td>34.6</td>
</tr>
<tr>
<td>White</td>
<td>131.2</td>
<td>28.4%</td>
<td>34.6</td>
</tr>
<tr>
<td>Black</td>
<td>118.5</td>
<td>37.1%</td>
<td>38.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>89.2</td>
<td>28.8%</td>
<td>19.0</td>
</tr>
</tbody>
</table>

Rates are per 100,000 age-adjusted to 2000 population.

a Based on a low number of cases

Tables 5 and 6 demonstrate the health disparities in cancer incidence and mortality rates and also in higher percentage of late-stage diagnoses for the top three cancers among different populations by race and ethnicity. Highlights of all seven priority cancers follow, beginning with the top four cancer sites for Camden County.

Cancer Burden by Site

Prostate Cancer

Camden County black men had a higher prostate cancer incidence rate (242.7 per 100,000) than did white men (162.1); this resembles the statewide pattern. However, Hispanic men in the county (206.2) had a higher incidence rate of prostate cancer than men in the county overall (172.0). In the state overall, the rate among Hispanic men (189.3) was similar to the rate among all men (194.3). The death rate from prostate cancer was almost twice as high in black men in Camden County (59.8 per 100,000) compared to white men (30.9).

Clear guidelines or consensus from the major cancer societies and professional organizations for prostate cancer screening have not been established. Counseling for men at high risk for prostate cancer, such as black men and all men with a family history of prostate cancer at an early age, is critical for appropriate screening. The American Urological Association and the American Cancer Society recommend that physicians should routinely present screening options for early detection and offer the prostate-specific antigen (PSA) blood test and digital rectum examination (DRE) to high-risk men, beginning at age 40 or 45.

v. December 2004
Breast Cancer

The breast cancer mortality rate was higher in Camden County (34.6 per 100,000) than in New Jersey (31.3) and the U.S. (27.7) for all races, as well as for black females (38.3 in Camden County compared to 37.2 in New Jersey) and white females (34.6 in Camden County compared to 31.2 in New Jersey). Black women in the county had a 10% higher death rate from breast cancer than did white women, even though the incidence rate of breast cancer in black women (118.5) was lower than in white women (131.2). Table 6 shows higher percentages of late-stage breast cancer diagnosis in black women (37%) compared to white women (28%). This pattern of disparities between racial groups needs further evaluation.

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. Based on interviews of 186 women in Camden County, the county rate did not differ significantly from the state rate. Within the county, the screening rate increased significantly during the period 1992–2002, as it did in the state overall. However, mammography screening rates need to improve particularly for black women, who have higher percentages of late-stage breast cancer at time of diagnosis, which is often proposed as the reason for higher death rates. The 1998 baseline percentage of the Healthy New Jersey 2010 objective for women having a clinical breast exam and mammography within the past two years shows that black women in New Jersey (58.5%) do not receive screening as often as do white women (66.7%).

Lung Cancer

Lung cancer kills more Camden County residents each year than prostate, female breast, and colorectal cancer combined. Lung cancer death rates in Camden County (males: 87.5 per 100,000; females: 47.5) were 17% and 14% higher than the corresponding state rates for males (74.8) and females (41.6), respectively, and 10% and 17% higher than the corresponding U.S. rates for males (79.5) and females (40.7), respectively. The lung cancer death rate among males was almost twice that among females. Black men (99.9) in Camden County had a higher lung cancer mortality rate than did white men (86.0), and black women (52.5) had a higher lung cancer mortality rate than did white women (47.7). This pattern between the racial groups was the same for men at the state level, but among women in the state overall, black women (41.8) had a similar mortality rate to that of white women (42.5). This finding may be related to countywide lack of access to treatment and delay of treatment once lung cancer is diagnosed.

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. Thus, preventing young people from initiating smoking, and providing effective smoking cessation programs to people of all ages and in all levels of society should be major strategies to prevent lung cancer. Exposure to environmental tobacco smoke (ETS), or “second-hand” smoke, remains an additional important issue.
**Colorectal Cancer**

The colorectal cancer mortality rate in Camden County was 30.5 per 100,000 for men and 19.7 per 100,000 for women. Within the county, black males had the highest death rate (33.1 per 100,000), although this was slightly lower than the corresponding state rate (35.8). Among Hispanic males, the mortality rate in the county (30.4) was almost double the rate in the state as a whole (16.5). The impact of age on colorectal cancer death rates is dramatic: men under the age of 65 had a mortality rate from colorectal cancer of 7.4 per 100,000, rising to 190.6 per 100,000 for men over the age of 65 years. Another example of the impact of aging can be seen in the colorectal cancer mortality rates among white women (4.8 per 100,000 for those less than 65 years of age and 124.9 for those over 65 years).

The high colorectal cancer incidence rates for Hispanic men (78.5) and women (71.5) in the county require further monitoring. These rates were higher than the state rates for Hispanic men (61.8) and women (46.8). There were also higher percentages of late-stage diagnosis among Hispanic men and women (a statistically significant trend among men, but not among women).

Utilization of colorectal cancer screening in Camden County population did not differ significantly from utilization in the state overall, reaching only 56% of New Jersey adults aged 50 and over according to BRFSS data for 2002.14,15 The percentages of late-stage colorectal cancer diagnoses were 48% for men and 52% for women in the county overall (state percentages were similar). For Hispanic men and women, over 60% of colorectal cancers were diagnosed at the late stages. It is important to inform all adults and all healthcare providers that colorectal cancer screening saves lives. There are four recommended methods for colorectal cancer screening (Table 3.55).i Two methods include the fecal occult blood test (FOBT) and colonoscopy. FOBT used once a year can reduce mortality of colon cancer by 33%.2 Colonoscopy, recommended every 10 years as cancer screening, has been shown to detect up to 66% of new cancers and can detect and facilitate removal of polyps.2

**Melanoma of the Skin**

Melanoma is responsible for about three-fourths of all deaths from skin cancer. Exposure to ultraviolet (UV) light is the primary causal agent. All races are affected by this disease by their exposure to the sun without proper protective cover. White populations have greater risk because of their light skin color. Skin cancer risk increases with every incidence of sunburn, and is a cumulative risk over the years.18 Therefore, risk increases sharply for those in the older age groups, who have had a lifetime of sun exposure. In Camden County, the incidence rate of melanoma among men aged 40 to 49 years was 9.2 per 100,000 and increased to 49.5 among men aged 65 to 74 years. Among women in Camden County, the incidence rate of melanoma increased from 11.6 per 100,000 for those aged 40 to 49 years to 21.6 for those aged 65 to 74 years.

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i Tables in parentheses refer to detailed supporting data found in the full report.1
Oral/Oropharyngeal Cancer

Men in Camden County (17.3 per 100,000) had a higher oral/oropharyngeal cancer incidence rate than did men in New Jersey as a whole (15.7). Black males had the highest oral/oropharyngeal cancer incidence rate in the county (21.6).

The five-year survival rate is 81% for those diagnosed with early-stage oral/oropharyngeal cancer, but less than 25% for those diagnosed with late-stage oral cancer. In Camden County, 30.2% of oral cancer cases among men were diagnosed at the early stages (in situ or localized) (Table 3.99). This percentage was similar to that for men across the state (30.8%), but lower than that for men nationwide (35.3%). For Camden County women, the percentage of early-stage oral cancer diagnosis (35.9%) was lower than for women statewide (41.0%) and nationwide (42.1%) (Table 3.100).

Smoking and high consumption of alcohol are two major risk factors for oral/oropharyngeal cancer. Raising awareness and providing education to all adults, dentists, and healthcare providers are the two essential steps to increasing early detection of oral cancer.

It is standard practice for dentists to perform oral cancer screening periodically for their clients. According to BRFSS data, over 75% of New Jersey women and 73% of New Jersey men reported in 2002 that they visited a dentist or dental clinic within the past year for any reason. The high percentage of New Jersey residents having seen a dentist would suggest that a high percentage of residents were screened for oral cancer. However, not all residents were screened.

BRFSS data indicate that in 2002, 37% of Hispanics and 33% of black residents in New Jersey did not have a dental visit within the past year compared to 26% of all New Jersey residents. Only 57% of New Jersey residents with less than a high school education went to the dentist for any reason within the past year, compared to 84% of college graduates.

Cervical Cancer

Cervical cancer is a highly preventable and curable disease if detected early. The Papanicolaou (“Pap”) smear, introduced in the 1940s, detects some precancerous as well as cancerous lesions, and is covered by most private and public health insurance. Some companies have moved to cover a more sensitive and specific screening test, the AutoPap, which uses a thin preparation of cells along with computer-assisted technology. 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. Based on interviews of 361 women in Camden County, the county rate did not differ significantly from the state rate. Within the county, the screening rate increased significantly during the period 1992–2002, as it did in the state overall.

Human papillomavirus (HPV), a sexually transmitted infection, is the most significant risk factor for developing cervical cancer; recommendations for the incorporation of HPV testing as part of screening were developed.

\[\text{For example, the ViraPap™ will detect which strains of HPV DNA, if any, are present.}\]
a pelvic examination have been developed by the American College of Obstetricians and Gynecologists.\(^2,20\)

Though deaths from cervical cancer have fallen dramatically since 1970, these deaths still occur disproportionately among older women and among minority women.\(^21\) To overcome socioeconomic barriers such as linguistic isolation, cultural norms, and poverty, the development of special programs is required to identify women at risk for cervical cancer earlier in the progression of the disease. The *Healthy New Jersey 2010* target for Pap tests (to reach 75% of women over 65 years of age and 85% of women 18–64 years of age) should be one of the targets for Camden County programs for women’s health, and particularly for the NJCEED programs that provide free screening for uninsured or underinsured women in the county.

**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.\(^2\) HIV/AIDS disproportionately affects minorities, who account for 75% of HIV/AIDS cases in New Jersey.\(^22\) Camden County has approximately 1,288 persons living with HIV/AIDS, as of December 2002.\(^23\) Camden City, however, accounts for more than one-half of the county’s population living with HIV/AIDS.\(^23\) Both healthcare providers and patients need to understand the risks.

**Bladder Cancer.** New Jersey’s bladder cancer incidence\(^k\) rates are higher than the corresponding national rates for all race and ethnic categories.\(^8\) Mortality due to bladder cancer is higher in New Jersey than in the nation overall. The American Cancer Society estimated that bladder cancer in 2003 would be the 6\(^{th}\) most common cause of cancer mortality in the U.S. and 5\(^{th}\) most common in New Jersey.\(^24\) Among males, bladder cancer incidence was slightly higher in Camden County (49.0 per 100,000) than in the state overall (45.6),\(^25\) but mortality was lower in the county (7.9) than in the state (9.4).\(^8\) Among females, the bladder cancer incidence rate in Camden County was among the lowest of the New Jersey counties, but the corresponding mortality rate was higher in the county (3.2 per 100,000) than in the state (2.7).\(^25,8\)

**Characteristics of the Populations of Focus for Reducing Cancer Burden**

1. Cancer incidence and mortality rates increase with age for both men and women (Figures 3.7–3.8, Table 3.5 of the full report). Camden County has 63,769 citizens aged 65 years and older, of whom 40% are men and 60% are women; the group of citizens aged 65+ represents 13% of the total population. The six largest municipalities (Camden City, Cherry Hill, Pennsauken, Voorhees, Gloucester Township, and Winslow Township), with the addition of the municipalities of Haddon Township, Bellmawr, Haddonfield Borough, Collingswood, and Gloucester City, comprise 72% of the county’s population aged 65 and over (Tables 1.6 and 3.5).\(^1\)

\(^k\) Invasive and *in situ* bladder cancers are both included in standard statistical tables. See “*United States Cancer Statistics: 2001 Incidence and Mortality Web-based Report*” footnotes at [http://apps.nccd.cdc.gov/uscs/TableV.asp?group=1a&Year=2001&Gender=FEM&RateType=AgeadjType&TableType=INCI - Footnotes](http://apps.nccd.cdc.gov/uscs/TableV.asp?group=1a&Year=2001&Gender=FEM&RateType=AgeadjType&TableType=INCI - Footnotes)
2. The highest mortality rates in Camden County from all cancer sites together are found among black men and women. The population of Camden County is 18.1% black and 9.7% Hispanic (of any race). Eighty percent (80%) of the county’s black population and 82% of the county’s Hispanic population live in the six largest municipalities (Table 3.6).¹

3. The largest number of new cancer cases occurred among the county’s white population, a group that comprises 71% of Camden County’s population (Table 3.7).¹

| Table 7. Average Annual Number of New Cancer Cases* Diagnosed in Camden County during 1996–2000² |
|---------------------------------|--------|---------|--------|--------|
|                                 | White  | Black   | Other Races | Total  |
| Male                            | 1,101  | 188     | 28        | 1,317  |
| Female                          | 1,085  | 164     | 22        | 1,271  |
| Total New Cancer Cases          | 2,186  | 352     | 50        | 2,588  |

* Includes all invasive cancer, not just the seven NJ-CCCP priority cancers.

4. Incidence and mortality rates among Camden County Hispanic males and females were higher than the corresponding rates in the state overall. Camden County has 9.7% Hispanic residents, 82% of whom live in the six largest municipalities. Language isolation can be a major barrier for receiving cancer education and access to services for early detection of cancer. Linguistically isolated households are concentrated in nine municipalities (Tables 1.11–1.12). Nearly 11% of the Hispanic households in Camden County are identified as linguistically isolated.

Analysis of the Causes of Cancer Burden

1. BRFSS data for New Jersey can help estimate the number of Camden County residents with certain behavioral risk factors. In Camden County, there are an estimated 70,000 men and women currently in need of smoking cessation programs, an estimated 68,000 persons at high risk of sunburn (which relates to higher rates of melanoma), and an estimated 16,000 residents with chronic severe drinking behavior (a risk factor for oral cancer and also associated with breast and colorectal cancer (Tables 3.8–3.9).¹ Obesity and lack of regular exercise are two additional risk factors related to lifestyle. According to BRFSS data, 37% of New Jersey adults were overweight, and an additional 19% were obese in 2002¹ (Table 3.8).¹,¹⁴

2. Analysis of county-level data from the 1992–2002 New Jersey Behavioral Risk Factor Surveys was performed for three cancer screening questions: breast, cervical, and colorectal cancer screening. Analysis of responses in Camden County shows that cancer screening rates have improved significantlyᵐ in two of these areas: women 50+ years with a self-reported history of mammography within the past two years and women with

¹ Overweight is defined as a Body Mass Index (BMI) between 25.0 and 29.9, using current standards. Obesity is defined as a BMI of 30.0 or greater. BMI is calculated by multiplying the weight (in pounds) by 703, then dividing the result by the square of the height (in inches).

ᵐ At the level of 5% significance.
no history of hysterectomy with a self-reported history of a Pap smear within the previous three years.

An assessment of overall health behavior and cancer screening utilization specifically among Camden County residents was conducted over 10 years ago.\(^4\) In order to make an assessment based on more recent data, 2002 BRFSS data related to health promotion and prevention behaviors and screening for other cancers for New Jersey as a whole were used to estimate behaviors at the county level. Future New Jersey Behavioral Risk Factor Surveys should be expanded to increase the number of people per county surveyed, providing a sufficient database for each county. Additional questions about cancer screening and public knowledge should be included.

3. Higher cancer incidence and mortality rates in Camden County overall, and particularly among the county’s black and Hispanic populations, suggest that disparities in healthcare access exist in the county. Education, health promotion, and access to early detection and cancer screening among those groups that are isolated because of language, culture, or other factors in the county must be further evaluated.

4. Lack of health insurance, low income, and other socioeconomic factors are barriers to accessing healthcare in Camden County (Table 3.11).\(^1\) Based on BRFSS trends data, the percentage of New Jersey residents who do not have any kind of healthcare coverage increased from 11.7% (1997) to 13.3% (2002).\(^{26}\) However, 38.2% of Hispanics in New Jersey did not have any kind of healthcare coverage in 2002 (compared to 24.6% in 1997).\(^{14}\) Among New Jersey residents with less than a high school education, 25.3% were without healthcare coverage.\(^{14}\)

5. Uncompensated charity care provided by Camden County hospitals places a burden on the healthcare systems in the county and their ability to provide quality comprehensive cancer care.

6. The NJCEED program is only partially funded, limiting the number of cancer screening provided to those in greatest need: those with incomes below 250% of the federal poverty level who are uninsured or underinsured. Currently the program is funded at a rate of 12% (federal funding) with an additional 6% from state funding, for a total of only 18% coverage of the eligible population for breast and cervical cancer screening (Table 3.12).\(^1\)

7. Cancer screening rates among those with healthcare coverage can also be improved. According to the 2002 New Jersey HMO Performance Report,\(^27\) an average of 22% women aged 18 to 64 years enrolled in a managed healthcare plan had not received a Pap test within the past three years, and 29% of women aged 52 to 69 years had not received a mammogram within the past two years (Table 3.13).\(^1\)

8. Recent health systems improvements for cancer care in Camden County and the Southern New Jersey Region have the potential to address access to cancer experts, availability of latest treatments for all cancer, participation in clinical trials, and other quality-of-care issues and quality-of-life concerns such as palliative care and hospice for end-of-life care.

9. The Consumer Health Profile maps for Camden County prepared by the National Cancer Institute’s (NCI’s) Atlantic Region Cancer Information Service (CIS) are a tool that can identify medically underserved populations and their characteristics to facilitate tailoring
of cancer education and awareness messages and other cancer-related media campaigns using strategies appropriate for the population of focus (Table 3.15).\textsuperscript{n,1,28}

Section 4 – Discussion, Analysis, and Recommendations

The overall recommendation is that Camden County cancer coalitions, programs, and healthcare providers follow the NJ-CCCP goals, objectives, and strategies to the extent possible in their implementation of activities and services for cancer care. A condensed version of the NJ-CCCP is included in Appendix E of the full Capacity and Needs Assessment Report for Camden County.\textsuperscript{1} County/local-level and statewide priorities are recommended for the top four cancers in Camden County and reference the related NJ-CCCP goals, using the following codes: Prostate Cancer (PR), Breast cancer (BR), Lung Cancer (LU), and Colorectal Cancer (CO). Also referenced are the NJ-CCCP goals with respect to overarching issues – including Access and Resources (AC), Palliation (PA), Nutrition and Physical Activity (NP), Advocacy (AD) – emerging trends (ET), and implementation (IM).

The NJ-CCCP offers four basic guiding steps for implementation of the Camden County cancer prevention and control plan:

- Awareness and education for cancer prevention (BR-1.2, CO-1.1, LU-1.1, and PR-1.1, AC2.1).
- Increased outreach efforts to educate residents and health care professionals about cancer screening, early detection, and treatment (BR1.1, BR1.3, BR1.4, BR3.1-2, CO1.2, CO1.3, LU2.1-2, LU4.1, PR2.1, PR2.2, PR4.1, AC2.1, AC4.2, AC4.3, PA1.1).
- Support for holistic and comprehensive cancer treatment, including participation in clinical trials (BR2.1, BR2.2, BR5.1, CO2.1, CO3.1-2, LU3.1, PR3.1, PR5.2, AC1.1-2, NP3.1-2, AC4.1, AD3.1, PA2.1-4).
- Addressing issues within the health system that are implicated in the reasons for health disparities (BR4.1-2, CO2.1, LU4, 5 and 6 goals, PR5.1, PR5.3, AD3.1, AC1.1, AC1.2, AC3.1, AC4.1-3).

Recommendations for Local and County Priorities

Recommendations for the county include prevention, screening, education, and general awareness, and further research.

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\textsuperscript{n} Consumer Health Profile maps of each New Jersey county were provided in June 2003 to the NJDHSS and UMDNJ and each county by the National Cancer Institute’s Atlantic Region Cancer Information Service, along with ongoing technical support. (More information can be obtained from: 1-800-4-CANCER.) The term medically underserved refers to individuals who lack access to primary care either because they are socioeconomically disadvantaged and may or may not live in areas with high poverty rates or because they reside in rural areas. The term also refers to individuals that reside in geographic areas where the Index of Medical Underservice (IMU) is 62 or less. The IMU is a weighted score derived from four variables: the ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of population below the federal poverty level, and the percentage of the population aged 65 years and older.
Prevention of Cancer

- **Physical activity.** Join with other healthcare coalitions that promote the benefits of exercise and increased physical activity and advocate promotion of decreasing cancer risks as an added benefit. Target multi-media campaigns to include the cancer message with general health benefits of exercise. Initiate information sharing with health educators in the public and private sectors (NP1.3, NP2.1, NP2.2).

- **Smoking cessation programs.** Target the zip codes identified in the NCI Consumer Health Profile maps. Continue to advocate for strict laws to prevent smoking/secondary smoke in public places and spaces. Increase primary care providers’ involvement in smoking cessation programs. Focus especially on those under 18 years of age (LU1.1).

- **Youth smoking prevention programs.** Target the zip codes identified in the NCI Consumer Health Profile maps. Involve school health programs and Parent-Teacher Associations as an integral part of the campaign (LU1.1).

- **Fruits and vegetables.** Join with other healthcare coalitions that promote the health benefits of increasing fruits and vegetables in the diet and advocate promotion of decreasing cancer risk as an added health benefit (NP1.1-2, NP2.1-2).

Increase Screening

Increase screening for breast cancer in women, prostate cancer in men, and colorectal cancer (BR1.1, BR1.3-4, BR3.1-2, CO1.2-3, LU2.1-2, LU4.1, PR2.1-2, PR4.1, AC2.1, AC4.2-3).

- Focus outreach efforts to increase screening for breast, cervical, colorectal, and prostate cancers, as well as anti-smoking campaigns, and smoking cessation promotion. Focus on black and Hispanic groups in the six largest municipalities (Table 1.9).¹

- Focus all screening efforts on the 13 municipalities with poverty levels above 10% (Table 1.16).¹

- Plan an intervention to inform and update primary healthcare providers and the cancer centers in the county about the services of NJCEED programs at Cooper Hospital and Fox Chase Virtua Health and about the NJ-CCCP goals, objectives, and strategies (AC1.1-2. AC3.1, AC4/1-3).

General Cancer Awareness and Education

We recommend working with the cancer coalitions in the county and the ACS South Jersey Cancer Coalition to explore effective interventions on the issues of cancer prevention, cancer screening, and early detection for the top four cancers in Camden County (prostate cancer in men, breast cancer in women, colorectal cancer, and lung cancer) and eventually for all seven NJ-CCCP priority cancers (AC2.1, BR1.2-3, CO1.1-3, LU1.1, PR1.1, PA1.1).
Further Research

As part of the continuing process of defining the implementation of the NJ-CCCP, we recommend that local health coalitions and NJCEED programs conduct operational research on primary care providers’ knowledge, practice, and promotion of cancer prevention, risk factor awareness, screening, detection, treatment, post-treatment support, palliative care, and end-of-life care, in order to focus future efforts on provider education (AC4.1-3, BR2.1-2, BR3.1, CO1.3, CO2.1, LU2.1-2, PR4.1, PA1.1).

Recommendations for Research-tested Intervention Programs

Although proven interventions that modify behavior about cancer awareness, prevention, and screening exist, there are few evidence-based cancer prevention or educational programs implemented in Camden County (AC1.1-2, AC2.1, AC4.1-3).

- Recommend to all health coalitions and institutions to select successful research-based programs that will become the basis of intervention programs, addressing the top four cancers (prostate, breast, lung, and colorectal) and/or the other three additional priority cancers of the NJ-CCCP (melanoma, cervical cancer, or oral cancer).

- The research previously recommended as a county/local priority would yield new baseline information about the level of cancer awareness, prevention, and screening behavior of residents, and the level of knowledge and screening practices of primary care providers. The effectiveness of the chosen intervention programs could then be evaluated against this baseline information. If the chosen evidence-based program for cancer outreach does not produce the desired outcome – an increase in enrollment in NJCEED screening programs or an increase in screening rates in primary care practices, for example – then a periodic evaluation should result in a change in the chosen strategy or program (AC4.3, NP2.1-2, BR.3.1-2, CO1.3, LU2.1, LU3.1, LU4.1, LU5.1, LU6.1, PR3.1, PR4.1-2, PR5.1-3. ET1.1-2, ET2.1-2, ET3.1, ET4.1-5, IM1.4, EV1.1 at the county level).

Recommendations for Statewide Priorities

Recommendation 1 – Evaluation and Development of a Model NJCEED Program. We recommend that the NJDHSS Office of Cancer Control and Prevention support the evaluation of the county NJCEED programs. The Camden County report suggests that a statewide evaluation of this federal/state NJCEED funding model would support the expansion of funding by the state and federal agencies and would enable the following (AC1.1-2, AD1.1-2, AD2.1-2):

- Develop “best practices” from strategies of the county NJCEED programs (e.g., those that help to narrow gaps in services due to health disparities and inequalities; those with increased registration for screening; and those that have successfully enrolled men or provided counseling for prostate cancer screening; AC-1, AC-4).

- Advocate for maintaining or increasing the level of financial support for NJCEED programs especially education, awareness, and screening within vulnerable populations and areas of poverty (AD-1).
- Develop a “toolkit” of county-level resources and evidence-based interventions for NJCEED programs (AC-4.1).

**Recommendation 2 – Development of an Advocacy Plan with Other Health Care Coalitions.**
We recommend that the NJDHSS Office of Cancer Control and Prevention as well as the NJ-CCCP Task Force continue to build advocacy partnerships among like-minded groups to work toward implementation of a national program that will promote insurance coverage for all Americans. This national effort would specifically include cancer prevention, cancer screening, early detection, and complete treatment and aftercare (AD1.1-2, AD2.1-3, AD3.1, IM1.2).

**Closing Remarks**

The Cancer Capacity and Needs Assessment provides a detailed baseline assessment for Camden 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.
References


5 Camden County Community Assessment for the United Way of Camden County, November 2003, prepared by Senator Walter Rand Institute for Public Affairs, Rutgers University.


http://www.state.nj.us/health/aids/aidsqtr.htm.


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28 National Cancer Institute. 2001 cluster profile. Unpublished data. Consumer Health Profile maps of each New Jersey county were provided by the NCI’s Atlantic Region Cancer Information Service to NJDHSS/UMDNJ and to each County Evaluator. June 2003. (More information can be obtained from 1-800-4-CANCER.)