

The Ohio Cancer Plan: 2010

Ohio Partners for Cancer Control



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Resolution

WHEREAS, the Ohio Partners for Cancer Control Advisory Council is comprised of representatives from hospitals, universities, cancer centers, healthcare professional associations, nonprofit organizations, government agencies, minority health coalitions, and community organizations for the purpose of providing leadership and fostering collaboration in the state of Ohio on cancer prevention and control and quality of life for cancer patients; and

WHEREAS, the Ohio Partners for Cancer Control has adopted as its mission, “To make cancer history for all Ohioans”; and

WHEREAS, the Ohio Partners for Cancer Control has identified priority areas and has developed objectives that reflect shared priorities concerning cancer prevention and control and quality of life for cancer patients in Ohio; now, be it

RESOLVED, that the membership of the Ohio Partners for Cancer Control Advisory Council, as set forth below, has adopted, and is fully committed to advancing, the mission statement, goals, and objectives set forth in the “OHIO CANCER PLAN: 2010,” on this, the third day of May, 2003.

Ohio Partners for Cancer Control Advisory Council Members

American Cancer Society, Ohio Division	Ohio Community Cancer Coalition
American College of Surgeons, Ohio Chapter	Ohio Dental Association
Ohio Section, American College of Obstetricians and Gynecologists	Ohio Department of Health
Appalachia Cancer Network	Ohio Dermatological Society
Association of Ohio Health Commissioners	Ohio Dietetics Association
Case Western Reserve University Ireland Cancer	Ohio Hospice & Palliative Care Organization
Cleveland Clinic	Ohio Hospital Association
Governor’s Office on Appalachia	Ohio KePRO, Inc.
Leukemia and Lymphoma Society	Ohio Nurses Association
National Black Leadership Initiative on Cancer	Ohio Osteopathic Association
National Cancer Institute’s Cancer Information Center	Ohio Primary Care Association
Ohio Department of Jobs and Family Services	Ohio Public Health Association
Ohio Academy of Family Physicians	Ohio Radiological Association
Ohio Breast and Cervical Cancer Coalition	Ohio State Medical Association
Ohio Cancer Registrar’s Association	Ohio State University Comprehensive Cancer Center
Ohio Commission on Minority Health	University of Cincinnati Cancer Center

Introduction

Cancer is the second leading cause of death after heart disease, and in Ohio alone, cancer claims more than 25,000 lives every year.

Approximately 2 in 5 Ohioans now living will eventually have cancer. We know that many of these cancers can be avoided. Nearly 65% of new cancer cases and 33% of cancer deaths could be prevented through lifestyle changes such as eliminating tobacco use, improving dietary habits, exercising regularly, maintaining a healthy weight, obtaining early detection cancer screening tests, and obtaining timely and appropriate treatment.

While many health systems, healthcare professionals, and researchers are working to reduce Ohio’s cancer burden, there are not enough resources to fully address this important health issue. Improvements must be made in the coordination of information, personnel, resources, and efforts among those working to fight cancer in order to maximize the ability to impact cancer prevention and control in Ohio.

The Ohio Partners for Cancer Control is a statewide consortium dedicated to reducing the cancer burden in Ohio. This consortium is comprised of representatives of organizations who have cancer prevention and control as a major focus of their mission. Organizations represented include hospitals, universities, cancer centers, healthcare professional associations, nonprofit organizations, government agencies, minority health coalitions, and community organizations.

The Ohio Partners for Cancer Control has as its mission “to make cancer history for all Ohioans.” This group stresses a unified fight against cancer through collaboration and use of a

comprehensive approach. A unified consortium will achieve far greater success than could be accomplished by individual organizations working on their own.

Comprehensive cancer planning is taking on increased importance throughout the nation as states seek to address this second leading cause of preventable death. Comprehensive cancer control, as defined by the Centers for Disease Control and Prevention, is an “integrated and coordinated approach to reduce cancer incidence, morbidity, and mortality through prevention, early detection, treatment, rehabilitation and palliation.” The Ohio Partners for Cancer Control is dedicated to this approach.

How is Comprehensive Cancer Control Accomplished?

Comprehensive cancer control relies on active involvement by concerned citizens and key stakeholders and uses data in a systematic process to:

- determine the cancer burden;
- identify the needs of communities and/or population-based groups;
- prioritize these needs;
- develop interventions and infrastructure to address the needs;
- mobilize resources to implement interventions; and
- evaluate the impact of these interventions on the health of the community/population.



The Ohio Partners for Cancer Control is a statewide consortium dedicated to reducing the cancer burden in Ohio.

Priorities to Advance Comprehensive Cancer Control in Ohio

There are many ways of looking at the cancer burden, for example, by cancer site (breast cancer, prostate cancer), by approach (prevention, early detection, treatment), or by demographics (gender, age, race, ethnicity, geographic location).

Priority Cancers

The Partners have identified the following cancers as being of utmost importance for Ohio:

- Breast
- Prostate
- Colon and Rectum
- Lung and Bronchus
- Skin
- Cervical
- Leukemia, lymphoma, and multiple myeloma

Combined, these cancers comprise the vast majority of cancer cases and deaths in Ohio.

In discussing the many concerns to be addressed for these cancers, the Partners noted that many issues overlapped the different sites. Therefore, they chose a classification system that allowed these issues to be addressed in a more coordinated manner. The following six areas have been identified as priority areas by the Ohio Partners for Cancer Control:

Primary prevention: things that can be done to prevent the identified cancers such as modifying diet and exercise habits, eliminating tobacco use, and avoiding the sun's rays.

Early detection: obtaining cancer screening tests to detect cancer early and at a more treatable stage. Examples of early detection cancer screening tests include: Pap tests for cervical cancer; mammograms for breast cancer; prostate-specific antigen (PSA) and digital rectal exam (DRE) tests for prostate cancer; and flexible sigmoidoscopy and colonoscopy for colorectal cancer.

Treatment and care: ensuring that all citizens have access to and financial coverage for timely and appropriate cancer treatment and other services such as home or hospice care.

Research and clinical trials: identifying priorities for cancer research, advocating for funding for cancer research, finding ways to prevent and detect cancer, and improving treatment options through increased participation in clinical trials.

Palliation and Quality of Life: ensuring that more people know about available resources for palliation and quality of life and use them to help cope with the side effects of cancer and cancer treatment.

Data and surveillance: improving the ability of reporting sources such as hospitals and physician offices to report new cancer cases in a timely and accurate manner, as required by law.

Additional information on these six aspects of comprehensive cancer control is provided on page 11.



Ten Goals for Comprehensive Cancer Control, 2003-2010

The Ohio Partners for Cancer Control has identified 10 goals to advance cancer control in Ohio over the next seven years (2003 to 2010). These goals are intended to be a broad road map that communities can follow, each in their own way, to get to the same destination: fewer new cancer cases and cancer deaths in Ohio.

These goals represent needs identified by experts in the field of cancer control and public health, and concerns raised by Ohio citizens. They were developed with input from individuals and community-based organizations that attended a series of town hall meetings held in the summer of 2002 and from the more than 30 organizations currently involved in the Ohio Partners for Cancer Control.

Primary Prevention Goals

- Increase outreach and education on primary prevention for all cancers among diverse populations.
- Decrease youth and adult tobacco use rates, increase public support for smoke-free environments, and advocate for tobacco control legislation.
- Educate employers and health plans on the importance of wellness benefits. Encourage them to include wellness benefits as part of their overall benefits packages.

Early Detection Goals

- Promote awareness of, and implement early detection initiatives that include appropriate follow up and treatment among the general public, high-risk groups, and healthcare professionals.

Treatment and Care Goals

- Identify disparities in treatment among diverse populations. Develop and implement interventions to address them.
- Implement healthcare professional outreach programs in rural and underserved parts of the state to address the availability of treatment options, including clinical trials.

Research and Clinical Trials Goals

- Conduct behavioral research in Ohio to determine healthcare professionals' knowledge, attitudes, beliefs, and practices regarding clinical trials and perceived barriers regarding patient participation in clinical trials.
- Increase awareness of, and enrollment in, clinical trials especially among diverse populations through public education and physician outreach.

Palliation and Quality of Life Goals

- Increase patient, caregiver, and healthcare professional awareness of quality of life issues and options; and increase access to and utilization of palliation and pain control techniques.

Data and Surveillance Goal

- Improve the quality, completeness, and integrity of reporting of cancer incidence, mortality, and staging data for diverse populations in Ohio.



These goals represent needs identified by experts in the field of cancer control and public health, and concerns raised by Ohio citizens.

Getting Started

In this section, the Partners have identified actions that can be implemented right now to begin to address the goals described in the previous section. The Partners have decided to hold the consortium accountable to seven-year goals with short-term objectives in order to build and maintain momentum in the fight against cancer.

The Partners will implement the following activities on a state level and will collaborate with communities throughout Ohio to help impact the cancer burden at the local level. The Partners will provide information and resources to mobilize these communities in the fight against cancer and to assist community members in improving the health status of their community.

Primary Prevention

Goal: Increase outreach and education on primary prevention for all cancers among diverse populations.

Objectives:

By 12/31/03 establish a baseline of organizations that provide cancer prevention education programs among diverse populations.

- Identify key elements of programs (e.g., type of programs [education, prevention], if programs are cancer site specific (breast cancer, prostate cancer, etc.)).
- Identify presence of outcomes data associated with program
- Establish criteria for identifying a “promising/effective” program.
- Identify groups developing other disease specific prevention movements and opportunities to partner in order to promote comprehensive risk reduction.

By 12/31/03 identify areas/populations where gaps in prevention education exist.

- Define “gap” (gaps in services, community resources, healthcare providers, data, etc.).

By 6/30/04 identify educational material on prevention of major cancers for use by the Ohio Partners for Cancer Control (OPCC) and organizations involved in prevention outreach and develop consistent set of material.

- Provide through OPCC Web site and partners’ Web sites and/or links to OPCC Web site.
- OPCC and Primary Prevention Workgroup will serve as coordinating body for ongoing review of material.
- By 12/31/04 develop capacity of additional organizations in underserved areas/populations to use the recommended tools provided by OPCC.

Primary Prevention

Goal: Decrease youth and adult tobacco use rates, increase public support for smoke-free environments, and advocate for tobacco control legislation.

Objectives:

- By 7/30/03 (and ongoing) support existing efforts to maintain tobacco settlement funds for tobacco control purposes.
- By 12/31/03 document existing tobacco use prevention/cessation efforts already prioritizing youth.
- By 12/31/03 document existing tobacco cessation efforts already prioritizing adults.
- By 12/31/03 document existing initiatives that support smoke-free environments and advocate for tobacco control legislation.
- By 12/31/04 partner with other regional and statewide tobacco use prevention groups to develop consistent messages.

Goal: Educate employers and health plans on the importance of wellness benefits. Encourage them to include wellness benefits as part of their overall benefits packages.

Objectives:

- By 12/31/03 identify key employers in Ohio who have implemented successful employee wellness programs.
- By 6/30/04 compile data on the cost-effectiveness of employee wellness programs.
- By 12/31/04 disseminate information on model employee wellness programs (including cost benefits) through outreach to Ohio employers, third party administrators, health plans, and purchasers.



Early Detection

Goal: Promote awareness of, and implement early detection initiatives that include appropriate follow up and treatment among the general public, high-risk groups, and healthcare professionals.

Objectives:

- By 1/31/04 provide a Continuing Medical Education (CME) course with a distance learning option to promote the importance of early detection screening tests. Priority audiences that may utilize this course include primary care physicians (family practice, internal medicine, OB/GYN), nurse practitioners, and other healthcare professionals.
- By 1/31/04 establish baseline of community-based early detection programs and identify gaps in services and access.
- By 6/30/04 assess colorectal cancer screening levels in Ohio and identify strategies to increase screening among diverse populations.
- By 12/31/04 identify opportunities and resources to address gaps in service and access.
- By 12/31/04 develop and implement a comprehensive men’s health awareness program to encourage men to go to the doctor for checkups that include discussion about cancer screening and risk behaviors, and to increase utilization of early detection cancer screening tests.
- By 12/31/04 develop model protocol for use by community-based early detection programs to ensure use of a comprehensive approach that includes: case management; follow up on suspicious and abnormal lab results; access to treatment and care; and data management.
- By 12/31/04, identify “Best Practices,” model programs, and promising programs among community-based early detection programs

Treatment and Care

Goal: Identify disparities in treatment among diverse populations. Develop and implement interventions to address them.

Objectives:

- By 6/30/04 establish baseline of facilities that provide cancer treatment, and delineate the type of cancer treatment available and the population served (e.g., geographic distribution, demographics, socioeconomic status, payor mix, etc.)
- By 6/30/04 assess baseline of standards of care by determining use of treatment guidelines (National Cancer Comprehensive Network, American Society of Clinical Oncology, etc.) among those institutions providing cancer care.
- By 7/30/04 map data gathered in objectives 1 and 2 to assess access issues.
- By 8/31/04 map information known about differences in treatment and care based on age, socioeconomic status, geographic region, access, etc.
- By 12/31/04 identify data sources and develop methodology to identify differences in treatment and care across demographic variable such as age, gender, race, and socioeconomic status.
- By 12/31/04 develop and implement educational outreach to communities to help them understand appropriate treatment and care options and to learn to ask for the care they are entitled to receive.

Goal: Implement healthcare professional outreach programs in rural and underserved parts of the state to address the availability of treatment options, including clinical trials.

Objectives:

- By 3/30/04 assess healthcare professional knowledge, attitudes, and practice patterns with regard to cancer care.
- By 6/30/04 develop and implement educational programs for healthcare institutions and health care professionals designed to increase quality of care for all populations.

Research and Clinical Trials

Goal: Conduct behavioral research in Ohio to determine healthcare professionals' knowledge, attitudes, beliefs, and practices regarding clinical trials and perceived barriers regarding patient participation in clinical trials.

Objectives:

- By 12/31/03 establish baseline of healthcare providers' knowledge with regard to clinical trials.

Goal: Increase awareness of, and enrollment in, clinical trials especially among diverse populations through public education and physician outreach.

Objectives:

- By 9/30/03 identify content area experts who are evaluating barriers for diverse populations' participation in clinical trials.
- By 12/31/03 create baseline of currently available clinical trials and locations.
- By 12/31/03 establish a baseline of information on barriers to participation in clinical trials among diverse populations.
- By 1/31/04 identify and document educational or awareness activities regarding clinical trials.
- By 1/31/04 identify and document "Best Practices" utilized to increase enrollment in clinical trials especially among diverse populations.
- By 5/31/04 document existing health plan policy coverage for clinical trial treatment and expenses.

Many of these objectives require gathering and analyzing baseline data to help determine next steps.

Palliation and Quality of Life

Goal: Increase patient, caregiver, and healthcare professional awareness of quality of life issues and options; and increase access to and utilization of palliation and pain control techniques.

Objectives:

- By 12/31/03 establish a definition of palliation and quality of life as it pertains to these issues in Ohio.
- By 12/31/03 obtain baseline data on palliative care services provided by health systems as well as healthcare providers certified in palliative care.
- By 12/31/03 establish baseline data on utilization of advance care planning information and hospice referrals among healthcare systems.
- By 6/30/04 identify, select, or create a quality of life assessment tool, which will address the individual holistically, measuring multiple domains including the physical, psychosocial, emotional, and spiritual domains.
- By 6/30/04 develop and disseminate information on advance care planning, palliative care, and patients' bill of rights (specific to palliation and quality of life issues).
- By 7/30/04 implement professional education on advance care planning, palliation, and patients' bill of rights (for attorneys, healthcare professionals) to increase consideration of quality of life issues throughout the cancer experience.



Data and Surveillance

Goal: Improve the quality, completeness, and integrity of reporting of cancer incidence, mortality, and staging data for diverse populations in Ohio.

Objectives:

- By 12/31/03 develop plan to increase reporting compliance from non-hospital reporting sources.
- By 12/31/03 document current status of reporting requirements among key organizations such as the American College of Surgeons, the National Cancer Institute, and the Ohio Department of Health.
- By 4/31/04 develop and implement a program to provide more educational offerings to registrars on a regular basis.
- By 6/30/04 develop and implement communication plan to stress importance of reporting accurate and timely data, including race and ethnicity codes.
- By 12/31/04 increase the proportion of cases reported electronically.
- By 5/31/05 explore options for coordination of these various reporting mechanisms.

Many of these objectives require gathering and analyzing baseline data to help determine next steps. Once these objectives are accomplished, new reports, materials, and tools will be developed to assist communities in the fight against cancer. Community-based organizations will be better able to take advantage of existing cancer programs and resources, mobilize support to increase access to existing resources and to develop new ones, and to work collaboratively to reduce the cancer burden in their communities and throughout the state. A second report (The Ohio Cancer Plan: 2010, Phase II) will outline progress to-date and next steps to take Ohioans to the end of this decade in cancer prevention and control.

Aspects of Comprehensive Cancer Control

As mentioned in the section "Priorities to Advance Comprehensive Cancer Control in Ohio", the descriptions that follow provide background on each of the six priority areas of comprehensive cancer control and explain the importance of these areas to advancing cancer prevention and control in Ohio.

Primary Prevention

Primary prevention refers to things that can be done to prevent cancer, such as eliminating tobacco use and modifying diet and exercise habits. Good nutrition is key to preventing cancer; better eating habits could reduce cancer incidence in the United States by as much as 30%. Cancer risk can be reduced by an overall diet plan that includes mostly plant foods (fruits, vegetables, grains, and beans); limits amounts of meat, dairy, and other high-fat foods; balances the number of calories eaten and physical activity; and limits alcohol use.

Physical activity can help protect against some cancers, especially colorectal cancer (and possibly breast cancer), and it contributes to overall good health. For most Americans who do not use tobacco, dietary choices and physical activity become the most important modifiable determinants of cancer risk.

Early Detection

Early detection refers to cancer screening tests to detect cancer early and at a more treatable stage. Some early detection tests can actually prevent cancer by detecting precancerous conditions such as those found in the colon or cervix. Other tests allow cancer to be diagnosed at an early stage, thereby increasing chances for survival if treated appropriately.

The number of cancer patients surviving five years after treatment has dramatically increased in the last century. Early in the

20th century, few cancer patients had any hope of long-term survival. Fewer than 1 in 5 (20%) were alive five years post-treatment in the 1930s. By the 1960s, the five-year relative survival rate improved to 33%. Today, the five-year relative survival rate of all cancer patients is 62%.

One of the strongest predictors of survival is the degree to which the cancer has spread when discovered, referred to as the stage at diagnosis. Generally, the earlier the stage, the better the prognosis. Cancer screening tests help detect cancer at an earlier stage. Examples of cancer screening tests include Pap tests for cervical cancer, mammograms for breast cancer, prostate-specific antigen (PSA) and digital rectal exam (DRE) tests for prostate cancer, and flexible sigmoidoscopy and colonoscopy for colorectal cancer.

Treatment and Care

Once cancer is diagnosed, timely information on treatment options and access to appropriate care are critical to improving survival rates.

Treatment options typically include surgery, chemotherapy, radiation therapy, and immunotherapy, either alone or in combination, depending on the type, site, and stage of the cancer. Palliative treatment is aimed at relieving symptoms.

Local therapy is intended to treat a tumor at the site without affecting the rest of the body. Surgery and radiation therapy are examples of local therapies.

Systemic therapy is given by mouth or directly into the bloodstream to reach cancer cells that may have spread beyond the cancer site. Chemotherapy, hormone therapy, and immunotherapy are systemic therapies.

When patients who have no detectable cancer after surgery are given systemic therapy, it is called adjuvant therapy. Doctors now believe that cancer cells may break away from the primary tumor and begin to spread through the bloodstream, even in the early stages of the disease. These cells cannot be felt by physical examination or seen on x-rays or by other imaging methods, and they cause no symptoms. But they can establish new tumors in other organs or the bones. The goal of adjuvant therapy is to kill these hidden cells.

Research and Clinical Trials

Research allows scientists to identify and collect new information on how cancer works in our bodies in the hope of finding ways to prevent cancer, detect it early, and improve treatment options. Scientists also study people's knowledge and attitudes about health issues and their health behaviors.

Clinical trials are research studies involving people. They start only after a new treatment has been carefully studied in the laboratory. Clinical trials try to answer specific questions about new and better ways to help prevent, diagnose, or treat diseases. Some study new anticancer drugs, while others look at new ways to use current drugs or other forms of treatment. Most of today's treatments for cancer are based on the results of earlier clinical trials.

People choose to enter clinical trials for different reasons. Clinical trials have both benefits and risks – they are not the right option for everyone.

Possible Benefits:

- Participants will receive, at a minimum, the best standard treatment.
- If the new treatment or intervention is proven to work, participants may be among the first to benefit.
- Participants have a chance to help others and improve cancer care.

Possible Risks:

- New approaches may have side effects or risks that are unknown.
- Even if a new treatment under study has benefits, it may not work for every participant.

Clinical trials try to answer specific questions about new and better ways to help prevent, diagnose, or treat diseases.



The number of cancer patients surviving five years after treatment has dramatically increased in the last century.



Surveillance data are important because they allow health professionals to identify risk factors for cancer, to determine incidence, mortality, and survival rates, to evaluate the cancer burden at a local and state level, and to compare this information to the nation as a whole.

The ultimate purpose of a clinical trial is to answer a medical question. Despite the possible risks, participants in clinical trials receive excellent, compassionate care. In fact, most people enrolled in clinical trials appreciate the extra attention they receive from their health care team. In a recent CenterWatch survey, more than 1,000 study participants were asked if they would enter a clinical trial again. Over 77% responded "definitely," 20% answered "maybe," and only 3% said "no."

Many safeguards are in place for people who join cancer trials to help ensure that clinical trials are conducted in an ethical manner. Participant rights and safety are protected through informed consent and review panels. Informed consent is an ongoing process in which people learn important information about a clinical trial to help them decide whether to participate. A scientific review panel and the institutional review board must approve the clinical trial before it can begin, and other boards monitor the progress of the trial during the study.

Research by the National Cancer Institute found that only about 3% of adults with cancer participate in clinical trials, and about 85% of cancer patients were either unaware of or unsure that participation in clinical trials was an option for their treatment.

Palliation and Quality of Life

Palliative care aims to relieve symptoms and side effects of cancer and cancer treatment in order to improve the quality of life for the patient, the family, loved ones, and caregivers. Palliation often refers to pain relief, but also includes addressing symptoms such as nausea, vomiting, loss of appetite, and fatigue. Many people think palliative care is equivalent to end-of-life care. It is important to note that a cancer patient can benefit from palliative care at any time during the cancer journey, from time of diagnosis, through treatment and into recovery, or to the end-of-life.

Data and Surveillance

Cancer surveillance is the routine collection of specific information about cancer cases occurring in Ohio and includes demographic information about the patient, as well as detailed information about the cancer itself. Information such as name, date of birth, race, ethnicity, address, cancer site, stage at diagnosis, and source of the report are required by Ohio law to be reported within six months of diagnosis of certain cancers. These data are kept confidential. Reports of the data contain no information that would allow the public to identify a cancer patient.

Surveillance data are important because they allow health professionals to identify risk factors for cancer, to determine incidence, mortality, and survival rates, to evaluate the cancer burden at a local and state level, and to compare this information to the nation as a whole. All of this information helps researchers to analyze trends in cancer incidence and mortality, identify ways in which we can reduce risk factors for cancer, and develop means of improving early detection. These data are also important in identifying and addressing the needs of certain populations who may be at higher risk for developing or dying from cancer.

The Ohio Cancer Incidence Surveillance System is the Ohio Department of Health program responsible for collecting, analyzing, and housing the cancer data for the state of Ohio. The Ohio Cancer Incidence Surveillance System attained the national quality standard of 95% for complete case reporting for 1999 cases reported in 2001. Ohio has continued to meet the national quality standards for data element collection (97% for the 1998 submission), death certificate only cases (less than 5%), data accuracy (97%), and percent duplicate cases (less than 0.2%). As a result, Ohio received the North American Association of Central Cancer Registries Silver Certificate (second highest level) for data quality with the 1998 data submission.



The Cancer Burden in Ohio

This section outlines what is known about the cancer burden Ohio and how each of us can make a difference in reducing our risk of cancer. It provides details on each of the cancers identified as priorities by the Ohio Partners for Cancer Control.

Overview

How Many People Alive Today Will Get Cancer?

In the years to come, cancer will strike in approximately 3 of every 4 families, and about 2 in 5 Ohioans now living, will eventually have cancer. Nationally, men have slightly less than a 1 in 2 lifetime risk of developing cancer; women's lifetime risk of developing cancer is slightly more than 1 in 3.

How Many New Cases of Cancer Are Expected To Occur This Year?

In 2003, approximately 60,300 Ohio residents are expected to be diagnosed with cancer. This amounts to almost seven new cases of cancer diagnosed every hour of every day. This estimate does not include nonmelanoma skin cancer and carcinoma in situ (for sites other than the urinary bladder).

Who Gets Cancer?

Cancer may strike at any age; however, cancer is mostly a disease of middle and old age. About 77% of all cancers are diagnosed in people 55 or older. Cancer is the second leading cause of death among adults in Ohio following heart disease, and the second leading cause of death in children between ages 5 and 14 following accidental death.

Can Cancer Be Cured?

Yes. In general, for most types of cancer, if a person's cancer has been in remission for five years (all signs and symptoms of the disease are absent), the cancer is considered cured. The length of remission at which a person is considered cured differs for various kinds of cancer. Certain types of skin cancer are considered cured as soon as the lesion is removed. With other cancers, eight to 10 years must pass before the person is considered cured.

How Many People Are Expected To Die of Cancer This Year?

In 2003, about 25,200 Ohioans are expected to die of the disease, which is approximately 70 people every day or almost three people every hour.

How Many People Are Surviving Cancer?

Approximately 37,000 Ohioans who get cancer in 2003 will survive five years after diagnosis. Nationally, the five-year survival rate for all cancers combined has increased to 62%. Factors such as early stage of disease at diagnosis can greatly improve the probability of survival after five years.

Could More People Be Saved?

Yes, more lives could be saved: 65% of new cancer cases and 33% of cancer deaths could be prevented through lifestyle changes such as eliminating tobacco use, improving dietary habits, exercising regularly, maintaining a healthy weight, avoiding exposure to the sun's rays, obtaining early detection cancer screening tests, and timely and appropriate treatment.

The American Cancer Society estimates that of the more than 101,100 lives lost to cancer in Ohio between 1996 and 1999, over 30,000 were lost because of tobacco use. About 750 Ohio cancer deaths per year may be related to excessive alcohol use, frequently in combination with tobacco use.

Scientific evidence suggests that it may be possible to reduce cancer deaths by up to 33% by improving nutrition and maintaining a body weight within the recommended range. Key aspects of improving nutrition include modifying diets to lower consumption of animal fat, increase consumption of grains, fruits, and vegetables, and limiting alcohol use.

Early diagnosis saves lives by identifying cancers when they are most curable. Five-year relative survival rates for common cancers such as breast, prostate, colorectal, cervical, and melanoma of the skin are between 90% and 100%, if they are discovered and treated before spreading beyond the organ where the cancer began.



65% of new cancer cases and 33% of cancer deaths could be prevented through lifestyle changes such as eliminating tobacco use, improving dietary habits, exercising regularly, maintaining a healthy weight, avoiding exposure to the sun's rays, obtaining early detection cancer screening tests, and timely and appropriate treatment.

Breast Cancer

Bottom Line

Nearly all breast cancers can be treated successfully if detected early. Obtaining an annual mammogram beginning at age 40 is the most effective way to detect breast cancer at an early, curable stage. Annual clinical breast exams by a doctor or nurse and monthly breast self-examinations are additional ways to detect breast cancer early. Some breast cancer risk factors, such as family history, cannot be changed. However, women may reduce their risk of developing breast cancer by staying physically active, avoiding obesity, and reducing alcohol use. Studies have shown that breast-feeding may lower breast cancer risk.

Prevention and Early Detection

Lifestyle factors such as regular physical activity and a low-fat diet might provide life-long protections against breast cancer. Studies researching dietary fat and oral contraceptive use have yielded varied results and more research is being done to study these potential risks. The risk of developing breast cancer increases with age. Nationally, 95% of new cases and 97% of breast cancer deaths occur in women aged 40 and older.

Management of risk factors may help some women reduce their chances of being diagnosed with breast cancer. Mammography can detect breast cancer about 1.7 years earlier and at a smaller size than clinical or breast self-examination alone, often before physical symptoms develop. Studies have shown that early detection, followed by prompt, appropriate treatment, saves lives and increases treatment options.

In 2001, 67% of women aged 40 and older surveyed in the Ohio Behavioral Risk Factor Surveillance System reported having had a mammogram in the past year, up from 42% in 1990. Nationally, an average of 62.6% of women aged 40 and older surveyed in 2001 reported having had a mammogram in the past year.

Cancer Burden

Breast cancer is the most common cancer among women in Ohio, regardless of race, and accounts for nearly one-third of all cancers diagnosed in women. Only lung cancer accounts for more cancer deaths in women. Between 1996 and 1999, an average of 8,222 cases of breast cancer per year were diagnosed in Ohio women. An average of 2,017 deaths from breast cancer were reported each year. Ohio's breast cancer incidence rate for the years 1996-1999 (130.9 per 100,000) is lower than the national incidence rate for 1996-1998 (136.6 per 100,000). Ohio's mortality rate for breast cancer from 1996-1999, 30.9 per 100,000, is slightly higher than the national rate of 30.3 per 100,000 for the years 1990-1999.

Disparities

Nationally, over the past decade, the difference in screening rates for white and African-American women narrowed, while the percentage of Hispanic women screened for breast cancer remained low. In Ohio in 2000, 70% of African-American women aged 40 and older surveyed in the Ohio Behavioral Risk Factor Surveillance System reported having had a mammogram in the past year. The percentage of African-American women reporting they had "ever had a mammogram" increased from 64% in 1990 to 93% in 2000. These percentages are based on small sample sizes; therefore, caution should be used in interpreting these percentages.

Differences in screening rates by geographic area were observed in a national study that used Behavioral Risk Factor Surveillance System data; women who lived in metropolitan areas were 10% more likely to receive a mammogram within the past two years (75.4%) compared to women who lived in rural areas (66.7%). Additional differences were observed across race, ethnicity, and education. Of women reporting 11 or fewer years of education, 57% had a mammogram

within the past two years, compared to 69% of women with 12 years of education and 76% of women with 13 or more years of education. Nationally, white women were more likely to have had a mammogram in the past two years (72%) compared to African-American women (68%), Hispanic women (63%), Asian/Pacific Islanders (57%), and American Indian/Alaska Natives (52%).

While breast cancer incidence is higher among white females, mortality from breast cancer is approximately 33% higher among African-American females. This may be in part due to a higher incidence of more aggressive estrogen-receptor-negative tumors among African-American women. In Ohio, the average annual mortality rate for breast cancer among African-American females from 1996-1999 was 40 per 100,000. This is higher than the national average of 37.1 per 100,000 for the years 1996-1998.

Mammography can detect breast cancer about 1.7 years earlier and at a smaller size than clinical or breast self-examination alone, often before physical symptoms develop.

Cervical cancer risk is closely linked to sexual behavior and to sexually transmitted infections with certain types of human papilloma virus

Cervical Cancer

Bottom Line

Screening tests offer a powerful opportunity for the prevention, early detection, and successful treatment of cervical cancer. Cervical cancer incidence and mortality rates have decreased markedly in the past several decades, with most of the reduction attributed to the introduction of the Pap test, which detects cervical cancer and precancerous lesions. When cervical cancer is detected early, it is one of the most successfully treated cancers.

Prevention and Early Detection

Cervical cancer risk is closely linked to sexual behavior and to sexually transmitted infections with certain types of human papilloma virus (HPV), a virus that can promote the development of cancer. Women who have sex at an early age, many sexual partners, or have partners who have had many sexual partners are at higher risk of developing the disease. Condoms may provide some protection from HPV. Cigarette smoking increases cervical cancer risk.



An annual Pap test and pelvic examination are recommended for women aged 21 and older or women who are sexually active. Pap tests can detect precancerous cells and infection by HPV, allowing these problems to be treated before cervical cancer develops. Invasive cervical cancer has decreased significantly over

the past 25 years because of increased screening with Pap tests and prompt treatment for changes found. In Ohio in 2000, 87% of women reported having a Pap smear in the past three years. As Pap screening becomes more prevalent, precancerous lesions of the cervix will be detected far more frequently than invasive cancer.

Cancer Burden

In an average year, about 550 Ohio women develop invasive cervical cancer, and about 190 women die of the disease. The incidence rate of cervical cancer in Ohio from 1996-1999 was 9.2 per 100,000 – the same as the national incidence rate for the years 1996-1998. The mortality rate from cervical cancer among women in Ohio from 1996-1999 was 3.1 per 100,000, slightly lower than the national rate of 3.3 per 100,000 (1996-1999).

Disparities

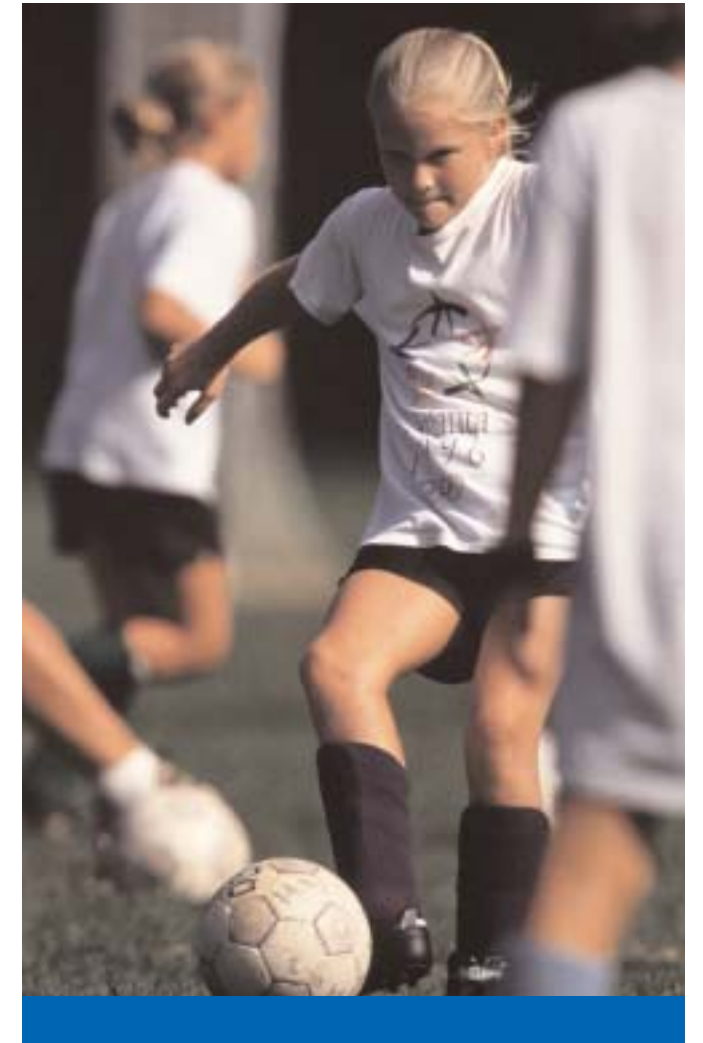
Nationally, utilization of Pap tests among Hispanic women aged 50 and older increased from 48% to 69% from 1987 to 1992. Despite this increase, it appears that Hispanic women in the United States may under-use screening services for cervical cancer. The Centers for Disease Control and Prevention analyzed data on new cases of cervical cancer among Hispanic and non-Hispanic women diagnosed during 1992-1999. The Centers found that despite a decrease in incidence rates of invasive cervical cancer in both Hispanic and non-Hispanic women, incidence rates among women aged 30 years or older were about twice as high for Hispanic women as for non-Hispanic women. The study also showed that women aged 50 years or older were more likely to be diagnosed with an advanced stage of disease, whether or not they were of Hispanic origin.

Pap test utilization differs by geographic area. Nationally, 84.5% of women who lived in metropolitan areas had a Pap test in the last three years compared to

81.3% of women living in rural areas. Additional differences were observed across race, ethnicity, and education, similar to differences in mammography utilization. Of women with 11 or fewer years of education, 74% reported having a Pap test within the past three years, compared to 81% of women with 12 years of education and 86% of women with 13 or more years of education. African-American women were more likely to have had a Pap test in the past three years (84%) compared to white women (82%), Hispanic women (77%), American Indian/Alaska Natives (77%), and Asian/Pacific Islanders (67%).

Geographic differences are seen in incidence and mortality rates for cervical cancer in Ohio. In 1999, the cervical cancer incidence rate for women in the 29 Appalachian counties in Ohio was 13.1 per 100,000 compared to 8.0 per 100,000 for women in non-Appalachian counties – a difference of 63.8%. The mortality rate for Appalachian women in Ohio was 4.0 per 100,000 compared to 2.6 per 100,000 for non-Appalachian women – a difference of 53.8%. Approximately 40% of cervical cancer cases among Appalachian women are diagnosed in women aged 40-59. Cervical cancer deaths among Appalachian Ohio women are highest in the 40-59 age group as well.

The incidence rates for cervical cancer in African-American women in Ohio from 1996-1999 (10.2 per 100,000) are higher than the rates for white women (9.1 per 100,000). Both incidence and mortality rates for cervical cancer in Ohio's African-American women between the years 1996-1999 (10.2 and 5.7 per 100,000 respectively) are lower than the comparable national rates for the years 1995-1999 (13.1 and 6.2 per 100,000 respectively).



Estimates indicate that if the majority of adults aged 50 and older were screened for colorectal cancer, deaths from colorectal cancer would drop nearly 50%.

Colon and Rectum Cancer

Bottom Line: Screening tests offer a powerful opportunity for the prevention, early detection, and successful treatment of colorectal cancers. While people cannot change their genetic makeup or family health history, most people can reduce their risk of colorectal cancer by following screening guidelines; eating a healthy, low-fat, high fiber diet; and increasing their level of physical activity.

Prevention and Early Detection

Modifiable risk factors for colorectal cancer include healthy eating, regular physical activity, maintaining suggested body weight, and avoiding smoking. Research suggests that aspirin-like drugs, post-menopausal hormones, folic acid, calcium supplements, selenium, and vitamin E may help prevent colorectal cancer.



Colorectal cancers can almost always be cured if they are detected early. Screening tests can detect colon polyps (tissue growths) before they become cancerous, as well as early-stage colorectal cancers. Individuals with a family history of colorectal cancer or adenomatous polyps in a first-degree relative (in a parent or sibling before age 60 or in two first-degree relatives of any age); a personal history of colorectal cancer, polyps, or chronic inflammatory bowel disease; or a family history of hereditary colorectal cancer syndrome should consider screening prior to age 50. However, 75% of

colorectal cancer occurs in people over age 50 with no predisposing factors.

In 2001, only 40% of Ohio adults aged 50 and over reported having had a sigmoidoscopy within the past five years. The percentage of Ohio adults aged 50 and older who reported having had a sigmoidoscopy within the past five years has increased from 28% in 1993 to 40% in 2001. Estimates indicate that if the majority of adults aged 50 and older were screened for colorectal cancer, deaths from colorectal cancer would drop nearly 50%.

Cancer Burden

Colorectal cancer is the third most common cancer in both men and women, nationally and in Ohio. It is the second most common cause of cancer-related death for both genders combined. From 1996 to 1999, a yearly average of 6,668 Ohioans developed colorectal cancer and 2,827 Ohioans died of the disease. Incidence rates of colorectal cancer in Ohio from 1996 to 1999 were higher (57.8 per 100,000) than the national rate from 1996-1998 (55.2). Mortality rates have dropped 27% over the past two decades. Ohio's mortality rate (24.6 per 100,000 from 1996-1999) remains higher than the national rate (22.7 per 100,000 from 1996-1998).

Increased use of sigmoidoscopy or colonoscopy, which in turn has increased benign polyp removal, has been suggested as one possible reason for the decline in mortality rates. Other possible contributors to reducing colorectal cancer mortality are dietary changes (including increased calcium intake) and increased use of aspirin to prevent heart disease.

Disparities

Nationally, African Americans have the highest death rates from colorectal cancer of any racial or ethnic group. These rates vary from being approximately 30% higher than the rate for whites to more than twice as high as the rates for Asian Americans, Pacific Islanders, American Indians, and Hispanics.

Colorectal cancer mortality rates among African Americans in Ohio dropped from 31.9 per 100,000 in 1990 to 28.1 per 100,000 in 1999. However, African-American men in Ohio still bear the highest burden of colorectal cancer with an average annual mortality rate of 36.3 per 100,000 (1996-1999). The average annual mortality rate for African-American women due to colorectal cancer was 27.2 per 100,000 for the same time period. Both male and female mortality rates for African Americans in Ohio are slightly higher than the national rates for African Americans of 34.4 per 100,000 and 25.4 per 100,000 respectively (1995-1999).

Lung cancer causes more deaths every year than do colorectal, breast, and prostate cancers combined.

Geographic differences in Ohio have also been noted. In 1999, the colorectal cancer incidence rate for men and women in the 29 Appalachian counties in Ohio was 66.7 per 100,000 compared to 57.3 per 100,000 for men and women in non-Appalachian counties – a difference of 16.4%. The colorectal cancer mortality rate for Appalachian Ohioans was 28.7 per 100,000 compared to 23.7 per 100,000 for non-Appalachian Ohioans – a difference of 21.1%.

A national study of colorectal cancer screening found that socioeconomic factors such as low educational attainment, limited health insurance, lack of health insurance, low use of preventive services, or lack of access to care, were associated with under-utilization of colorectal cancer screening.

Lung and Bronchus Cancer

Bottom Line

Lung cancer is the number one cause of cancer death in the United States, killing more than 150,000 Americans every year, including more than 7,400 Ohioans each year. Tobacco use is the leading cause of lung cancer. Other causes include exposure to secondhand smoke and prolonged exposure to environmental radon. Currently, early detection of lung cancer is difficult. Studies are underway to increase our ability to detect lung cancer early; however, early detection remains difficult. This leaves prevention as the single most important aspect in eliminating lung cancer.

Prevention and Early Detection

Stopping the use of tobacco can nearly eliminate lung cancer. Although lung cancer has been reduced among some groups in recent years, nearly 25% of Americans – adults, adolescents, and children – continue to smoke and use tobacco.

Prolonged exposure to environmental radon is believed to be responsible for over 800 cases of lung cancer in Ohio per year. Homes, schools, and other buildings should be monitored for radon and appropriate radon abatement procedures should be implemented.

Early detection has not been shown to improve survival rates for lung cancer. Identifying an effective screening method is the key to improving early detection of lung cancer. Chest x-ray, analysis of cells contained in sputum, and fiber optic examination of the bronchial

passages have all shown limited effectiveness in detecting lung cancer early. Newer tests, such as low-dose helical computed tomography (CT) scans and molecular markers in sputum, are currently being evaluated.

Cancer Burden

Lung cancer is the second most common cancer in Ohio among men and women and the leading cause of cancer death. Lung cancer causes more deaths every year than do colorectal, breast, and prostate cancers combined.

Between 1996 and 1999, an average of 8,757 new cases of lung cancer were diagnosed each year in Ohio. Lung cancer incidence rates in Ohio (102.4 per 100,000 for men and 56.2 per 100,000 for women from 1996-1999) are significantly higher than national rates (85.6 per 100,000 for men and 51.3 per 100,000 for women from 1996-1998).

Between 1996 and 1999, an average of 7,436 people died from lung cancer each year in Ohio. Lung cancer mortality rates in Ohio (64.0 per 100,000 from 1996-1999) continue to exceed national rates (58.4 per 100,000 from 1990-1999).

Like most cancers, lung cancer occurs more frequently among older people. However, people of all ages, even children as early as middle school, become tobacco users. These current smokers comprise a large part of the at-risk population for eventually developing lung cancer.

Nationally, approximately 23.3% of adults reported smoking (a decrease from 42.4% in 1965). Despite this encouraging national trend, 28% of Ohio adults report smoking. Ohio currently ranks third in smoking prevalence in the United States.

Disparities

Nationally, African-American men have significantly higher lung cancer incidence than other racial and ethnic populations. Though African-American men begin smoking at an older age and smoke fewer cigarettes per day than whites, both incidence and mortality rates are higher in this population. From 1996-1999, the lung cancer incidence rate among African Americans in Ohio was 87.7 compared to 73.7 for whites. Lung cancer incidence rates among both male and female African Americans in Ohio are higher than the rates for African Americans nationally. In Ohio, from 1996-1999, lung cancer incidence rates for African-American men averaged 123.7 per 100,000 and for women averaged 63.1 per 100,000 compared to the national rates of 120.6 and 53.1 per 100,000 respectively (1996-1998).

Additional differences are seen in mortality data. In Ohio, from 1996-1999, lung cancer mortality rates were significantly higher than national rates: 119.5 per 100,000 for African-American men and 53.0 per 100,000 for African-American women compared to national rates of 109.1 and 40.2 per 100,000 for African-American men and for African-American women (1995-1999).

Differences in lung cancer incidence and mortality rates are seen when comparing Appalachian vs. non-Appalachian counties in Ohio. In 1999, the lung cancer incidence rate for men and women in the 29 Appalachian counties in Ohio was 82.9 per 100,000 compared to 74.2 per 100,000 for those in non-Appalachian counties – a difference of 11.7%. The lung cancer mortality rate in Ohio's Appalachian counties was 68.7 per 100,000 compared to 63.1 per 100,000 for non-Appalachian counties – a difference of 5.6%.

Data from the National Health Interview Survey, 2000, identify differences in cigarette use across gender, age, education, race, and ethnicity. Examples include: men were more likely to smoke than women (25.7% vs. 21.0%); younger adults aged 19-24 (26.8%) and 25-44 (27%) were more likely to smoke than those aged 65 and older (9.7%); adults with a college degree (13.2%) or a graduate degree (8.4%) were less likely to smoke than those who completed nine to 11 years of education (33.9%); American Indians and Alaska Natives were most likely to smoke (36.0%), followed by whites (24.1%), African Americans (23.2%), Hispanic (18.6%), and Asians (14.4%).

Similar trends were seen in Ohio with regard to gender, age, and education. Data from the 2000 Ohio Behavioral Risk Factor Surveillance System indicated that men were more likely to smoke (29% vs. 26%); younger adults aged 18-34 (36%) and 35-49 (34%) were more likely to smoke than older adults aged 50-64 (23%) and 65 and older (10%). In addition, those who completed fewer than nine years of education were more likely to smoke (38%) than those who completed some high school (33%), those with some college education (29%), or those with a graduate degree (14%).

Prostate Cancer

Bottom Line: Prostate cancer is the most common type of cancer in US men (other than skin cancer) and the second leading cause of cancer death. Age is the main risk for prostate cancer, and early detection increases survival and treatment options. All men 50 years and older should talk to their doctors about their risk for prostate cancer and the importance of digital rectal exams (DRE) and prostate-specific antigen (PSA) tests to detect prostate cancer early. Men at high risk (African-American men and men who have a first-degree relative diagnosed with prostate cancer) should consider beginning testing at age 45. Men should discuss an

African-American men are at a higher risk for prostate cancer than men of any other racial or ethnic background.





While the short-term results from unprotected UV exposure are tanning and sunburn, long-term exposure can cause prematurely aged skin, wrinkles, and skin cancer.

abnormal DRE or PSA with their doctors, especially since it is not clear if all men need to be treated immediately for prostate cancer or if watchful waiting is the appropriate course of action.

Prevention and Early Detection

The only well-established risk factors for prostate cancer are age, ethnicity, and family history of prostate cancer. More than 70% of all prostate cancer cases are diagnosed in men over age 65. African American men have the highest prostate cancer incidence rates in the world. Genetic studies indicate that strong familial disposition may be responsible for 5% to 10% of prostate cancers. International studies suggest that dietary fat may also be a risk factor.

Because the exact cause of prostate cancer is not known, early detection may offer men the greatest opportunity for appropriate treatment and full recovery. Risk factors such as a man's age, race, and family history, while beyond his control, should be discussed with his physician. These factors impact a man's decision to be screened and to seek follow up and treatment as needed.

Cancer Burden

From 1996 to 1999 in Ohio, 26% of new cancer cases (an annual average of 6,943 new cancer diagnoses), and 11% of cancer deaths (an annual average of 1,457 cancer deaths), were due to prostate cancer. Between 1988 and 1992, increased use of PSA testing caused prostate cancer incidence rates to rise dramatically due to earlier diagnosis in men without symptoms.

Nationally, the prostate cancer incidence rate for all men from 1995-1999 averaged 257.3 per 100,000. In Ohio, the prostate cancer incidence rate for all men was 139.3 per 100,000 from 1996 through 1999. The national prostate cancer mortality rate from 1990-1999



was 36.3 per 100,000. Ohio's prostate cancer mortality rate from 1996-1999 was 34.8 per 100,000.

According to the 2001 Ohio Behavioral Risk Factor Surveillance System, 63% of Ohio men aged 50 and older had a PSA test within the past year and 55% had a DRE within the past year.

Disparities

African-American men are at a higher risk for prostate cancer than men of any other racial or ethnic background. Nationally, the prostate cancer incidence rate for African-American men was 201.1 per 100,000 from 1996 through 1999. Prostate cancer was the leading cancer diagnosis from 1996 to 1999 among Ohio African-American men, accounting for 33% of new cancer diagnoses each year. The prostate cancer incidence rate in Ohio African-American men was over 60% higher than the rate for white men (201.1 per 100,000 versus 127.3 per 100,000 respectively, from 1996-1999).

Prostate cancer was the second leading cause of cancer mortality in African-American men in Ohio between 1996 and 1999. An average of 237 African-American men died from prostate cancer between 1996 and

1999 in Ohio. The national prostate cancer mortality rate from 1995-1999 was 72.8 per 100,000 for African-American men. Ohio's prostate cancer mortality rate from 1996-1999 was 69.7 per 100,000 for African-American men.

The differences seen in utilization of cancer screening tests for other cancer sites such as breast, cervical, and colorectal, across variables such as education and household income were not seen in screening for prostate cancer. Data from the 2001 Ohio Behavioral Risk Factor Surveillance System indicated that while only 47% of men who completed fewer than nine years of education obtained a PSA test in the past year, 62% had a DRE in the past year. Sixty-seven percent of men with some high school or a GED had a PSA test in the past year, and 53% had a DRE. Of those with some college education, 58% reported having a PSA test in the past year, and 58% reported having a DRE. Sixty-nine percent of those with college degrees reported having a PSA test in the past year, and 53%, having a DRE.

Melanomal Skin Cancer

Bottom Line

Nearly all skin cancers are preventable by limiting unprotected exposure to the sun. When they do occur, most skin cancers can be treated successfully if detected early – even melanoma, the most serious type of skin cancer.

Leukemia is the most common cancer in children and adolescents.

The vast majority of skin cancers are due to unprotected and excessive ultraviolet (UV) radiation exposure. While UV exposure is associated with a small percentage of all cancer deaths, the American Cancer Society estimates that UV exposure is associated with more than one million cases of basal cell and squamous cell cancers annually.

Most exposure to ultraviolet radiation comes from sunlight, but exposure can also come from artificial sources, such as tanning booths. While the short-term results from unprotected UV exposure are tanning and sunburn, long-term exposure can cause prematurely aged skin, wrinkles, and skin cancer.

Prevention and Early Detection

Risk factors for melanoma include: light skin color; a personal or family history of melanoma; presence of moles and freckles; and a history of severe sunburn occurring early in life. Risk factors for basal and squamous cell cancers include: chronic exposure to the sun; a personal or family history of skin cancer; and light skin color.

Measures recommended to prevent skin cancer include:

- Avoid direct exposure to the sun between the hours of 10 a.m. to 4 p.m. when the ultraviolet rays are the most intense.
- Cover as much skin as possible when outdoors: wear a hat that shades the face, neck, and ears, a long sleeved shirt, and long pants.
- Wear sunglasses to protect the eyes.
- Cover exposed skin with a sunscreen with a sun protection factor (SPF) of 15 or higher.
- Avoid tanning beds and sun lamps, which provide an additional source of UV radiation.

Sunburn protection should be emphasized in children, as severe sunburns in childhood greatly increase the risk of melanoma in later life.

Early detection and prompt treatment of skin cancer saves lives. Many physicians perform a thorough skin check as part of an annual physical exam. Individuals can also notice early warning signs of skin cancer by looking for changes in color, shape, and size of moles.

Cancer Burden

Nationally, approximately 54,200 new cases of melanoma are expected to be diagnosed in 2003. An average of 1,513 Ohioans were diagnosed with, and 312 Ohioans died annually, from malignant melanoma between 1996 and 1999. Approximately 60% of the deaths occurred in men, and 40% of the deaths occurred in women. The melanoma incidence rate in Ohio from 1996-1999 (13.4 per 100,000) was lower than the national rate from 1996-1998 (17.1 per 100,00). Ohio's mortality rate is the same as the national rate, 2.7 per 100,000. Non-melanoma skin cancers are not required to be reported, so the full extent and cost associated with these skin cancers is unknown.

Despite the importance of sun protective behaviors, few data are available at the state level. In Ohio, 41.4% of males and 28.8% of females surveyed as part of the Behavioral Risk Factor Surveillance System reported being sunburned during the past 12 months preceding the survey in 1999.

Disparities

Melanoma rates are more than 10 times higher in whites than in African Americans.

Nationally, variations by race, ethnicity, and gender were observed in results from the Behavioral Risk Factor Surveillance System, with a high percentage of sunburns among white, non-Hispanic males and females and low percentages among black, non-Hispanic males and females.

Leukemias

Bottom Line

Although many types of cancer can be prevented by lifestyle changes to avoid certain risk factors, there is currently no known way to prevent most cases of leukemia. The only inherited risk factor known for chronic leukemia is that first-degree relatives (parents, siblings, or children) of chronic leukemia patients have a two-fold to four-fold increased risk for developing this cancer. People with a known inherited tendency to develop leukemia should receive thorough, periodic medical checkups. The risk of leukemia in individuals with these syndromes, although higher than that in the general population, is still extremely rare.



When plasma cells grow out of control they can produce a tumor. These tumors can grow in several sites, particularly in the soft middle parts of bone called the bone marrow. When these tumors grow in multiple sites they are referred to as multiple myeloma.

Prevention and Early Detection

There are currently no early detection tests for leukemia. Early symptoms of leukemia such as fatigue, weight loss, and swelling of the lymph nodes, are often not defined enough to generate a diagnosis of leukemia. Patients should be sure to consult their physician if undiagnosed chronic symptoms linger, especially if there is a history of leukemia in the family.

At least one-fifth of people with chronic leukemia have no symptoms at the time their cancer is diagnosed. Their cancer is often diagnosed by blood tests performed during a routine physical or for evaluation for an unrelated health problem.

High dose radiation exposure (such as an individual who survived a nuclear reactor accident) increases the risk of developing chronic myelogenous leukemia, but not chronic lymphocytic leukemia. Long-term exposure to herbicides and/or pesticides among farmers can increase their risk of acquiring chronic lymphocytic leukemia. There is conflicting evidence about whether electromagnetic field (EMF) is a potential risk factor for developing leukemia. EMFs are a type of energy that occur near very high-voltage power lines. Most studies published so far suggest either no increased risk or a very slightly increased risk of developing chronic leukemia. Some studies suggest that EMF exposure may be a risk factor for acute leukemia in children.

Cancer Burden

Overall, about 30,800 new cases of leukemia will be diagnosed in the United States during 2003, and approximately half will be acute leukemias. About 21,900 adults and children in the United States will die of leukemia during 2003.

From 1996-1999, there was an average of 1,193 new cases of leukemia diagnosed each year in Ohio. The incidence of leukemia is higher among males (13.6 per 100,000) than females (8.1 per 100,000) in Ohio. Overall, incidence rates in Ohio are lower than national rates for both men and women. The mortality rate for leukemia in Ohio is very close to the national rate (8.0 per 100,000 and 7.9 per 100,000 respectively).

Types of Leukemia

Adult Acute

In acute leukemia, the bone marrow cells are unable to properly mature. The most common adult leukemia is acute myelogenous leukemia (AML) with approximately 10,500 new cases expected nationally in 2003. About 9,200 deaths from acute leukemias will occur in the

Because of advances in treatment, death rates [from Hodgkins disease] have fallen more than 60% since the early 1970s.

United States during 2003. AML is a disease of mostly older people; the average age of a patient with AML is 65 years. The chance of developing leukemia for a 50-year-old person is 1 in 50,000, and for a 70-year-old, it is 1 in 7,000. AML is more common among men than among women. An estimated 20% of adult acute leukemia cases are related to smoking tobacco. Smoking doubles the risk of AML in people over 60. Acute lymphocytic leukemia (ALL) is more common among children than adults; most patients are under 10 years of age.

Adult Chronic

In chronic leukemia, bone marrow cells can mature but are not completely normal and do not fight infections as well as normal white blood cells do. Approximately 11,600 new cases of chronic leukemia are expected during 2003 nationally. The two main types of chronic leukemia are chronic lymphocytic leukemia (CLL) and chronic myelogenous leukemia (CML). If the cancer develops from bone marrow lymphocytes, it is called lymphocytic leukemia. If the cancer develops from precursors to myeloid tissues (red blood cells), it is called myelogenous leukemia. Nationally, approximately 7,300 new cases of CLL and 4,300 new cases of CML are expected in 2003. Hairy cell leukemia (HCL) is estimated to account for about 2% of leukemias each year.

Most chronic leukemias affect adults. The average age of patients with CLL is about 70 years of age. The average age of patients with chronic myelogenous leukemia CML is 40 to 50 years of age. Patients with HCL are most often 50 to 60 years old. About 2% of chronic leukemia patients are children. Like CLL, HCL is a slow progressing cancer of lymphocytes. The cells of HCL appear different under the microscope in that they have fine projections that create an impression of "hairy" cells.

Childhood

Leukemia is the most common cancer in children and adolescents. It accounts for almost one-third of all cancers in children under age 15 and one-fourth of cancers occurring before age 20. Leukemia accounted for 29% of new cancer cases and 38% of cancer deaths among Ohio children ages 0-14 from 1996-1999.

The American Cancer Society predicts that about 2,700 children will be diagnosed with leukemia in the United States during the year 2003. Of the 2,700 children with leukemia, about 2,200 will be diagnosed with ALL. Many of the remaining children will be diagnosed with

AML. ALL is most common in early childhood, peaking between 2 and 3 years of age. AML is most common during the first two years of life and is less common among older children. AML cases start to increase again during the teenage years, with AML becoming the most common acute leukemia in adults over 55 years of age. AML or ALL can be kept in remission for a long time or cured in about 20% to 30% of adults.

Disparities

ALL is slightly more common among white children than among African-American and Asian-American children, and is more common in boys than in girls. AML is equally rare among boys and girls of all races.

Multiple Myeloma

Bottom Line

Multiple myeloma is a type of cancer formed by malignant plasma cells. Normal plasma cells are an important part of the immune system.

The immune system is composed of several types of cells that work together to fight infections and other diseases. Lymphocytes (lymph cells) are the main cell type of the immune system. There are two types of lymphocytes: T-cells and B-cells. When B-cells respond to an infection, they mature and change into plasma cells. Plasma cells produce and release proteins called immunoglobins (antibodies) to attack and help kill disease-causing germs such as bacteria.

When plasma cells grow out of control they can produce a tumor. These tumors can grow in several sites, particularly in the soft middle parts of bone called the bone marrow. When these tumors grow in multiple sites they are referred to as multiple myeloma.

Prevention and Early Detection

Scientists have identified a few risk factors that make a person more likely to develop multiple myeloma. However, most people with these risk factors never develop multiple myeloma. Even if a patient with multiple myeloma has one or more risk factors, it is impossible at this time to determine how much that risk factor contributed to causing the cancer.

Age is the most significant risk factor; only 2% of cases are diagnosed in people younger than 40. The average age at diagnosis is 70. People with other plasma cell diseases may also be at higher risk. About 20% of people with monoclonal gammopathy of undetermined significance (MGUS) or extramedullary plasmacytoma will eventually develop multiple myeloma.

Exposure to radioactivity has been suggested as a risk factor but accounts for a very small number of cases. Some studies have suggested that workers in certain petroleum-related industries may be at higher risk. Finally, this cancer may seem to be more common in some families; however, this is quite rare and most patients have no affected relatives.

Multiple myeloma is difficult to detect early since, in many patients, it may not cause symptoms until it has reached an advanced stage. In other patients, it may produce symptoms that may appear to be due to other diseases. The most common symptoms of multiple myeloma include: bone pain; blood problems such as anemia, excessive bleeding, or lowered immunity; kidney damage; susceptibility to infection; and nervous system symptoms such as weakness, numbness, dizziness, and other stroke-like symptoms.

Cancer Burden

It is estimated that nationally, about 14,600 new cases of multiple myeloma (7,800 in men and 6,800 in women) will be diagnosed during 2003. About 10,900 Americans (5,400 men and 5,500 women) are expected to die of multiple myeloma in 2003.

There was an annual average of 581 new cases of multiple myeloma diagnosed among Ohioans over the years 1996 to 1999. The rate among men (6.2 per 100,000) is higher than among women (4.2 per 100,000). The average annual mortality rate for multiple myeloma in Ohio from 1996-1999 (4.2 per 100,000) was slightly higher than the national average annual mortality rate for the same time period (3.9 per 100,000).

Disparities

Multiple myeloma is twice as common among African Americans than among whites; however, the reason for this is not known.

Lymphomas Hodgkin Lymphoma

Bottom Line

Hodgkin disease, sometimes called Hodgkin lymphoma, is a cancer that starts in lymphatic tissue. Lymphatic tissue includes the lymph nodes and related organs that are part of the body's immune and blood-forming systems. The lymph nodes are small, bean-shaped organs found underneath the skin in the neck, underarm, and groin. They are also found in many other places in the body such as inside the chest, abdomen, and pelvis.

Doctors have given names to different types and subtypes of Hodgkin disease. The two main types are classical Hodgkin disease (which has several subtypes) and nodular predominant Hodgkin disease. Nodular lymphocyte is the predominant Hodgkin disease.

Prevention and Early Detection

Risk factors for Hodgkin lymphoma are largely unknown, but in part involve reduced immune function and age. There appears to be a slightly increased rate of Hodgkin disease among people who have had infectious mononucleosis, an infection caused by the Epstein-Barr virus. However, half of patients with Hodgkin disease have no evidence of a previous Epstein-Barr virus infection.

People with lowered immunity also tend to show higher rates of Hodgkin disease. This includes those individuals with reduced immunity (such as those with AIDS), those who must take immune-suppressing drugs, and those who have congenital immunodeficiency syndromes such as ataxia-telangiectasia. Symptoms include enlarged lymph nodes, itching, fever, night sweats, fatigue, and weight loss.

Cancer Burden

The American Cancer Society estimates that in 2003, about 7,600 new cases of Hodgkin disease will be diagnosed in the United States. Hodgkin disease affects men more than women; of these 7,600 new cases, 4,000 will occur in men and 3,600 will occur in women. These numbers have not changed much over the past few years. Hodgkin disease can occur in both children and adults. It is more common, though, in two age groups: early adulthood (ages 15-40, with most cases occurring between 25 and 30) and late adulthood (after age 55). Hodgkin disease is rare before 5 years of age. About 10% to 15% of cases are diagnosed in children 16 years of age and younger.

It was estimated that 1,300 people (600 women, 700 men) died of Hodgkin disease in the United States during 2002. Because of advances in treatment, death rates [from Hodgkins disease] have fallen more than 60% since the early 1970s.

In Ohio, there was an average of 306 new cases per year over the years 1996-1999, producing an incidence rate of 2.7 per 100,000. This is close to the national incidence rate of 2.8 per 100,000. Mortality from Hodgkin is low. There was an average of 55 deaths per year in Ohio from Hodgkin disease from 1996-1999. The Ohio mortality rate is very similar to the national mortality rate (.5 per 100,000 and .6 per 100,000 respectively).

Non-Hodgkin Lymphoma

Bottom Line

Non-Hodgkin lymphoma is cancer that starts in lymphoid tissue (also called lymphatic tissue). The lymphatic system is important for filtering bacteria and cancer cells and carrying fluid from the limbs and internal organs. Lymphoid tissue contains lymphocytes, which are cells that fight infections. They also try to reject any foreign tissue that gets into the body, such as a transplanted organ. Lymphocytes are found in lymphoid organs (discussed below) and in the bone marrow.

Non-Hodgkin lymphoma can be distinguished from Hodgkin lymphoma by examining the cancerous tissue under a microscope. In some cases, more tests to identify specific chemical components of the lymphoma cells or tests of the cells' DNA may be needed.

Lymphoid tissue is formed by several types of immune system cells that work together to resist infections. Lymphoid tissue is found in many places throughout the body. Lymphocytes (lymph cells) are the main cell type of the immune system. There are two types of lymphocytes: T-cells and B-cells. Although both types can develop into lymphomas, B-cell lymphomas are much more common than T-cell lymphomas. These two cell types account for 85% (B-cell) and 15% (T-cell) of cases of non-Hodgkin lymphoma.

Prevention and Early Detection

Symptoms include enlarged lymph nodes, itching, fever, night sweats, fatigue, and weight loss.

Cancer Burden

About 53,400 Americans (28,300 males and 25,100 females) are expected to be diagnosed with non-Hodgkin lymphoma, and about 23,400 Americans (12,200 males and 11,200 females) will die of this cancer in 2003. These statistics include both adults and children.

Non-Hodgkin lymphoma is the sixth most common cancer in this country, excluding nonmelanoma skin cancers. Since the early 1970s, incidence rates for non-

Non-Hodgkin lymphoma can be distinguished from Hodgkin lymphoma by examining the cancerous tissue under a microscope.

Hodgkin lymphoma have nearly doubled. This increase appears to be due to a combination of better methods of detection and an actual increase in the number of new cases. From 1992-1998, incidence rates have stabilized, except among African-American females. Overall, incidence rates for Hodgkin disease have declined since the late 1980s.

In Ohio from 1996-1999, there was an average of 2,140 new cases per year of non-Hodgkin lymphoma. Males had a higher incidence rate (22.1 per 100,000) than females (15.9 per 100,000). Ohio's mortality rate was higher than the national rate for that same time period (9.4 per 100,000 vs. 8.5 per 100,000 respectively).

Although some types of non-Hodgkin lymphoma are among the most common childhood cancers, over 95% of non-Hodgkin lymphoma cases occur in adults. The average age at diagnosis is in the early 40s. The risk of developing non-Hodgkin lymphoma increases throughout life, and the elderly have the highest risk. The increasing average age of the American population is expected to contribute to the increase in non-Hodgkin lymphoma cases during the next few years.

Disparities

Non-Hodgkin lymphoma is more common in men than in women. Whites are affected more often than African Americans or Asian Americans.



Eliminating Disparities

Eliminating health disparities is one of the primary goals of the Ohio Partners for Cancer Control. Research indicates that genetic factors, poverty, lack of education, and lack of access to care explain some of the health disparities seen in the United States. Yet, despite research demonstrating the existence of health disparities, we know strikingly little about the causes of these disparities and how to prevent them. Researchers are examining topics such as socioeconomic status, race, ethnicity, geographic location, and more to help determine the causes of health disparities.

An apparent overriding factor is socioeconomic status (SES), which is closely tied to health and longevity. At all income levels, people with higher SES have better health than those at the level below them. SES also appears to be a strong force behind differences in health among racial and ethnic groups. According to the Centers for Disease Control and Prevention, African Americans, Hispanics, Native Americans, and Asian populations such as Vietnamese and Laotians are more likely than other groups to be poor. Poverty affects health outcomes in part by limiting access to needed resources. Other factors of SES such as education, geographic location, and occupation also affect health issues. Often poorer neighborhoods are "economically segregated". This means that there may be a limited number of healthcare facilities available, and there may be transportation problems in accessing the

facilities. Since the quality of schools is partially determined by community resources, it means that people in poor communities disproportionately receive a poor quality education. As a result people may be less informed about health issues, less able to obtain a good job, and less able to support their families.

Through the Ohio Family Health Survey (1998), the Ohio Department of Health reported on the health status and access to healthcare of low income African-American and white adults in Ohio. Key findings include:

- Low-income adults were significantly more likely than non low-income adults to report a chronic health condition.
- Low-income adults were significantly more likely (15%) than non low-income adults (5%) to report unmet healthcare needs.
- Low-income adults had significantly lower average ratings of satisfaction with access to specialists and were significantly more likely to report poor satisfaction with access to specialists than their non low-income counterparts.
- Low-income African-American adults were significantly more likely than their white counterparts to report clinics, emergency rooms, hospital outpatient departments, and other sources (military and veterans' facilities, family members and friends) as their usual source of healthcare.
- Low-income African-American adults were significantly more likely (34%) than white adults (24%) to report poor to fair health.

The Ohio Department of Health reported findings on health insurance coverage in Ohio from 1999-2001 from the Current Population Survey. Key observations of this survey include:

- More than 1 in 10 Ohio residents were without health insurance coverage in 2001; approximately 1.25 million Ohioans.

Research indicates that genetic factors, poverty, lack of education, and lack of access to care explain some of the health disparities seen in the United States.

- Ohio's uninsured rate continues to be lower than the US average (11.2% in Ohio vs. 14.6% nationally in 2001), but remains consistent with most other midwestern states.
- About half (51%) of Ohio residents without health insurance coverage lived in low-income families and approximately one-fifth (21%) were living in poverty.
- Slightly over half (55%) of African-American Ohio residents were insured through an employer plan, compared to nearly three-quarters (73%) of white Ohioans. However, African-American Ohio residents were about three times more likely to be covered by Medicaid than whites (24% compared to 7%).
- Ohio adults between the ages of 25 and 34 were more likely to be uninsured than older adults.
- In 2001, the uninsured rate for Ohio children was significantly below the US average (7.5% in Ohio compared to 11.7% nationally), yet remained consistent with most other midwestern states.
- In 2001, two-thirds of uninsured Ohio children (133,578) lived in low-income families. Nearly all of these children were eligible for Medicaid coverage.
- The disparity between African-American and white child uninsured rates narrowed substantially between 1999 and 2001, with uninsured rates for African American children declining from 15.2% to 9.7% and white children's uninsured rates increasing from 6.2% to 7.1%.

A report on rural and urban health issued by Georgetown University's Center on an Aging Society concludes that although differences are not always substantial, rural populations are consistently less well off with respect to health than urban populations. Specific findings include:

- The proportion of rural residents reporting fair to poor physical health is almost 1.5 times that of urban residents.
- The proportion of adults in rural areas with chronic conditions is slightly larger than their urban counterparts.
- Adults in rural areas are more likely to report physical limitations (14%) than their urban counterparts (9%).
- Risky health behaviors are slightly more common among adults in rural areas (includes smoking, alcohol consumption, lack of regular physical exercise, overweight and obesity).
- Adults in rural areas are less likely to be tested for chronic conditions.
- Rural residents are more likely to be uninsured and to stay uninsured for longer periods of time; over one-third of rural residents (vs. one quarter of urban residents) have been uninsured for more than three years.

The issue of poor health outcomes in rural areas is acutely felt by the Appalachian region in the United States. Appalachia encompasses 406 counties in 13

states, ranging from New York to Mississippi. Twenty-nine of Ohio's 88 counties are classified as Appalachian. The Appalachian region has a high prevalence of risk factors for cancer, including tobacco use, lack of physical activity, and inadequate access to medical care. Death rates from 1994-1998 for rural Appalachia (176.3 per 100,000) and all Appalachia (173.1 per 100,000) were significantly higher than the US death rate for this period (166.7 per 100,000). Death rates for cervical, lung, and colorectal cancers were also significantly higher in Appalachian areas than the corresponding overall US rate.

The aging of the world's population has dramatic implications for cancer prevention and control.

The aging of the world's population has dramatic implications for cancer prevention and control. Age is a primary risk factor for cancer. In the United States, the number of persons aged 65 years and older is expected to increase from approximately 35 million in 2000 to 71 million in 2030, and the number of persons aged 80 years and older is expected to increase from 9.3 million in 2000 to 19.5 million in 2030. This growing number of older adults will increase demands on public health, medical, and social services. In addition, the disproportionate effect of chronic diseases on older adults will impact healthcare and long-term care costs.

The Ohio Partners for Cancer Control is committed to working with researchers, healthcare professionals, community organizations, and others to better determine the causes of health disparities, to determine the needs of our aging population, and to develop interventions to address these issues.

Survivorship

A vital component of comprehensive cancer planning identified by the Centers for Disease Control and Prevention is addressing the growing cancer survivor population. The overall five-year survival rate for all cancers combined among adults is 62%, and the overall five-year survival rate for children with cancer is 77%. The National Cancer Institute states, "An individual is considered a cancer survivor from the time of diagnosis, through the balance of his or her life". Family members, friends, and caregivers are also impacted by the survivorship experience and are therefore included in this definition.

Currently, there are approximately 9.2 million cancer survivors nationally (about 4% of the population). Approximately 50 to 100 million additional individuals (family, friends, caregivers) are included in the circle of survivor relationships. By the year 2015, there will be an estimated 11.3 million cancer survivors nationally.

Key to addressing needs of survivors is gaining understanding of unique needs and concerns throughout the diagnosis, treatment, and recovery phases of the cancer experience. These needs and concerns span the physical, psychological, social, emotional, and spiritual domains. Examples of survivor issues include concern regarding late-term and long-term effects of cancer treatment, re-employability and insurability, and fear of recurrence.

The Ohio Partners for Cancer Control will work to address the needs of the growing survivor population through activities that span the priority areas of primary prevention, early detection, treatment and care, palliation and quality of life, research and clinical trials, and data and surveillance. It will take a coordinated effort across these areas to obtain better and more accurate data to describe the needs of survivors and to develop the means to appropriately and adequately address those needs.



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Healthy People 2010

The goal of eliminating health disparities is one of many common aspects between the Partners' comprehensive cancer plan and the Healthy People 2010 objectives issued by the United State Department of Health and Human Services. Healthy People 2010 presents a comprehensive, nationwide health promotion and disease prevention agenda. It is designed to serve as a roadmap for improving the health of all people in the United States during the first decade of the 21st century. Healthy People 2010 is committed to a single, overarching purpose: promoting health and preventing illness, disability, and premature death. The table in Appendix A provides an overview of these objectives and how they relate to current trends in Ohio.



Summary

Cancer is the second leading cause of death in the United States and in Ohio. In 2003, over 60,000 Ohioans will be diagnosed with cancer, and an estimated 25,000 Ohioans will die of cancer. Ohio's disadvantaged populations are disproportionately affected by cancer. These are all significant enough reasons to act, but the need for a call to action becomes even more urgent when one considers that the burden of cancer extends even further — to the family, caregivers, employers, the healthcare system, and communities.

We know that 65% of new cancer cases can be prevented through lifestyle changes including: eliminating tobacco use, improving dietary habits, increasing exercise, maintaining a healthy weight, and obtaining early detection cancer tests. More lives can be saved by increasing access to appropriate treatment and follow-up care and increasing participation in clinical trials. More cancer patients and families can improve their quality of life by accessing early and more comprehensive palliative care. High quality data related to all aspects of cancer — incidence, mortality, risk behaviors, clinical outcomes, research findings, utilization, healthcare expenses — are key to guiding our efforts and measuring our progress.



The Ohio Partners for Cancer Control believes that we can "make cancer history for all Ohioans". To be successful, everyone — each individual, each healthcare professional, hospital, school, organization, association, employer, and community — must work together.

- Together, we can identify ways to address priorities outlined in this plan and ways to improve our health, the health of our loved ones, and of our communities.
- Together, we can increase access to information and resources on cancer prevention and control, work to eliminate disparities among diverse populations in Ohio, and work to improve the quality of life for all those touched by cancer.
- Together, we will make cancer history for all Ohioans.

The Ohio Partners for Cancer Control believes that we can "make cancer history for all Ohioans."

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Healthy People 2010 Objective	Healthy People 2010 Target	Change needed in Ohio to meet Healthy People 2010 Objective
Reduce the overall cancer death rate.	159.9 deaths per 100,000 population	27% reduction in Ohio mortality rate
Reduce the lung cancer death rate.	44.9 deaths per 100,000 population	30% reduction in Ohio mortality rate
Reduce the breast cancer death rate.	22.3 deaths per 100,000 females	28% reduction in Ohio mortality rate
Reduce the death rate from cancer of the uterine cervix.	2.0 deaths per 100,000 females	36% reduction in Ohio mortality rate
Reduce the colorectal cancer death rate.	13.9 deaths per 100,000 population	44% reduction in Ohio mortality rate
Reduce the prostate cancer death rate.	28.8 deaths per 100,000 males	17% reduction in Ohio mortality rate
Reduce the rate of melanoma cancer deaths.	2.5 deaths per 100,000 population	7% reduction in Ohio mortality rate
Increase the proportion of persons who use at least one of the following protective measures that may reduce the risk of skin cancer: avoid the sun between 10 a.m. and 4 p.m., wear sun-protective clothing when exposed to sunlight, use sunscreen with a sun-protective factor (SPF) of 15 or higher, and avoid artificial sources of ultraviolet light.		No current Ohio data
(Developmental) Increase the proportion of adolescents in grades 9 through 12 who follow protective measures that may reduce the risk of skin cancer.	75% of adolescents in grades 9 through 12 use at least one of the identified protective measures.	
Increase the proportion of adults aged 18 years and older who follow protective measures that may reduce the risk of skin cancer.	75% of adults aged 18 years and older use at least one of the identified protective measures.	
Increase the proportion of physicians and dentists who counsel their at-risk patients about tobacco use cessation, physical activity, and cancer screening.		No current Ohio data
Internists who counsel about smoking cessation: 1988 baseline 50%	85%	
Family physicians who counsel about smoking cessation: 1988 baseline 43%	85%	

Healthy People 2010 Objective	Healthy People 2010 Target	Change needed in Ohio to meet Healthy People 2010 Objective
Dentists who counsel about smoking cessation: 1997 baseline 59%	85%	
Primary care providers who counsel about blood stool tests: 1988 baseline 56%	85%	
Primary care providers who counsel about proctoscopic examinations: 1988 baseline 23%	23%	
Primary care providers who counsel about mammograms: 1988 baseline 37%	85%	
Primary care providers who counsel about Pap tests: 1988 baseline 55%	85%	
Primary care providers who counsel about physical activity: 1995 baseline 22%	85%	
Increase the proportion of women who receive a Pap test		
Women aged 18 years and older who have ever received a Pap test: 1998 baseline 91%	97%	2% increase in percent of Ohio women ever received a Pap test
Women aged 18 years and older who received a Pap test within the preceding three years: 1998 baseline 79%	90%	5% increase in percent of Ohio women received aPap in the past three years
*Baseline is age-adjusted to the year 2000 standard population. Includes women without a uterine cervix.		
Increase the proportion of adults who receive a colorectal cancer screening examination.		
Adults aged 50 years and older who have received a fecal occult blood test (FOBT) within the preceding two years: 1998 baseline 35%	50%	61% increase in percent of Ohioans over 50 who had FOBT in past two years
Adults aged 50 years and older who have ever received a sigmoidoscopy: 1998 baseline 37%	50%	22% increase in percent of Ohioans over 50 who ever had sigmoidoscopy
Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding two years.	70%	11% increase in percent of Ohio women over 40 who had mammogram in past two years Ohio has met the Healthy People 2010 goal for women over age 50.
Increase the number of states that have a statewide population-based cancer registry that captures case information on at least 95% of the expected number of reportable cancers.	45 states	Ohio has a statewide cancer registry; 1998 and 1999 data are 95% complete. Ohio currently meets HP2010 goal.
Increase the proportion of cancer survivors who are living five years or longer after diagnosis.	70%	15% increase in percentage of Ohioans surviving at least five years after diagnosis