Connecticut Cancer Plan 2009-2013

The Power of Unity.

Connecticut CANCER Partnership

The Power of Unity

Connecticut Cancer Plan, 2009-2013

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CONNECTICUT CANCER PARTNERSHIP

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June 2009

M. Jodi Rell
GOVERNOR
STATE OF CONNECTICUT

April 2009

Dear Residents of Connecticut:

It is likely that every one of us has been impacted by the burden of cancer. If affects fathers, mothers, children, grandparents…and it could strike any of us tomorrow, next week, or a year from now. Four out of ten of us will hear the words "You have cancer" during our lifetime.

Effective cancer prevention, early detection, and control requires thorough, collaborative planning and coordination. Since 2002, the Connecticut Cancer Partnership has brought together hundreds of people from around our state. Together they have created a plan that will prevent, reduce, and control cancer. These committed people shared their collective knowledge and expertise for the good of all Connecticut's residents. The result is this revised, five-year *Connecticut Cancer Plan, 2009-2013* that will continue the cancer efforts of the previous version, the *Connecticut Comprehensive Cancer Control Plan, 2005-2008.*

The plan will serve as a resource for all cancer initiatives in our State as it is a living document—one that will change and evolve over time. It is also a plan that honors our ability to make progress in our efforts to reduce the burden of cancer and to improve the quality of life of people with cancer in Connecticut. This process can—and should—give us hope for the future. By working together, we can truly ensure a healthier Connecticut.

Sincerely,

M. Jodi Rell
Governor
State of Connecticut

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STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

J. Robert Galvin, M.D., M.P.H., M.B.A.
Commissioner

M. Jodi Rell
Governor

April 2009

Dear Residents of Connecticut:

Cancer remains the second leading cause of death in our state and affects every individual, family, and community. Each year, an estimated 19,000 new cases of cancer are diagnosed and 7,000 Connecticut residents die of cancer. Many of us have experienced cancer or watched a loved one battle cancer. Reducing the burden of cancer in Connecticut will take a collaborative and comprehensive approach.

The Connecticut Cancer Partnership is a broad, vital consortium of more than 200 public and private partners working to fight cancer and improve the quality of life of Connecticut's residents. The Partnership, working in close collaboration with staff here at the department of Public Health, have thoroughly reviewed outcomes as a result of the prior five year plan, *Connecticut Comprehensive Cancer Control Plan, 2005-2008*, and developed new priority goals, objectives, and strategies in this edition of the *Connecticut Cancer Plan, 2009-2013*.

The plan serves as a comprehensive blueprint for action that will guide state cancer control efforts and promote collaborations between public and private agencies. Progress in cancer control and prevention will result from the collective work of a multitude of organizations including government, business, health care, research, and non-profit organizations. Partnerships between agencies will allow organizations to work together toward the common goal of reducing cancer incidence and mortality among our residents, and improving quality of life.

I commend the Connecticut Cancer Partnership for developing this dynamic document that will continue to navigate our state toward a more integrated approach to reducing cancer's impact on our diverse residents. The cancer prevention and control activities are paving the way to a healthier Connecticut.

Our health is one of the most important investments we can make for our future. I am thankful to those individuals who volunteer their time and expertise in order to create this road map for change.

I urge you to become involved and advocate for public health by supporting the Connecticut Cancer Partnership.

Sincerely,

J. Robert Galvin, M.D., M.P.H., M.B.A.
Commissioner
Connecticut Department of Public Health

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Connecticut CANCER Partnership

The Power of Unity

Dear Friends:

Connecticut has been extremely fortunate over the past seven years to have an energetic, engaged, and diverse group of volunteers from all sectors working together in a common cause—to reduce the burden of cancer in our state. In 2005, The Connecticut Comprehensive Cancer Control Plan, 2005-2008 was published, launching a collaborative and coordinated process upon which our new plan is based. "The Power of Unity" as a slogan for the Connecticut Cancer Partnership was aptly chosen to signify the importance and impact of working together in a synergistic way.

The Connecticut Cancer Partnership is the coalition recognized by the US Centers for Disease Control and Prevention to implement the concepts of comprehensive cancer control. Progress made in each area as discussed in this Plan is carried out through the work and collaboration of all of our member organizations.

The time and resources of every member and organization are limited and valuable. Participation in the Connecticut Cancer Partnership truly reflects each member's and each organization's collaborative spirit and commitment to the importance of systematically addressing efforts to make progress against this disease. On behalf of our Board and the residents of Connecticut - my thanks to all who have contributed so selflessly.

Over the past year, in addition to the exciting implementation projects that span the continuum of cancer control, we have worked closely with our colleagues representing many organizations and our Department of Public Health to update that first state cancer control plan. We are proud to present the **Connecticut Cancer Plan, 2009-2013**.

The overarching issue of disparities in health outcomes and access to prevention and health care resources is a theme that resonates throughout the entire Plan. Disparities may be due to health literacy issues, language barriers, access, culture, socioeconomic status, or race/ethnicity. This blueprint prioritizes and outlines strategies needed to accomplish our mission for all residents of Connecticut. It identifies specific programs, efforts, and focus areas that fit into the state's overall approach to cancer control, and how they are integral to the great challenge –decreasing the burden of cancer on our state residents.

We look forward to continuing this important work with our committed partners in our ongoing fight against cancer.

Sincerely,

Andrew L. Salner, M.D. FACR
Chair, Connecticut Cancer Partnership
Director, Helen & Harry Gray Cancer Center, Hartford Hospital

Contents

Preface
Board of Directors 3
Acknowledgements 4
Executive Summary 5
Introduction 11
I: Comprehensive Cancer Control In Connecticut
A. The Connecticut Cancer Partnership 13
B. Connecticut's Approach to Comprehensive Cancer Control 15
- Building on a Foundation
- What Does the Connecticut Cancer Partnership Do?
- Working with Partners in Plan Development
- Addressing Disparities
- Collaboration with Chronic Disease Initiatives
- Connecticut's Data System
- Reflecting National Goals
- Research

II: Connecticut Cancer Plan 2009-2013
A. The Burden of Cancer in Connecticut 25
- Demographics
- Cancer Incidence
- Cancer Mortality
- Cancer Survival
- Cancer Screening
- Risk Factors for Cancer
- Disparities in Cancer Burden
- Economic Burden

B. The Continuum of Cancer Control 45
1. Prevention 47
2. Early Detection 59
3. Quality Treatment 63
4. Survivorship 69
5. Palliative and Hospice Care 75

C. Cross-Cutting Activities and Support 81
1. Disparities and Access 83
2. Communications, Education, and Training 85
3. Advocacy 91
4. Data, Surveillance, and Evaluation 95

III. Implementation
A. Tracking Plan Progress 97
B. Priority Recommendations: Year One 98
C. Infrastructure and Sustainability 99

Appendices
A. Acronyms A-1
B. Resources
1. Ten Essentials of Public Health A-3
2. National Benchmarks: HP 2010, ACS 2015 goals, Link to NCI/IOM Accelerating Successes Against Cancer A-4
3. Chronic Care Model A-13

C. How You Can Help A-15
D. Tracking Table A-17

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Acknowledgements

We would like to acknowledge the contributions of committee members for their time and expertise. Their dedication to this process has made this plan possible. Members of the continuum and cross-cutting committees have devoted countless hours to researching and assessing needs, developing goals and objectives, setting targets and creating strategies for achieving objectives. Their names are listed at the beginning of each committee section.

In addition, a small group of members oversaw the creation of this document through its evolution, ensuring that it reflects the most inclusive content, while still maintaining consistency across the continuum of cancer control. We are grateful to Marion Morra, Carol Bower, Lisa McCooey, Patricia Checko, Lou Gonsalves, and Andrew Salner for their unflagging efforts to shepherd this plan throughout the lengthy creation process.

A Planning Committee will continue to work with all of the committees throughout the life of this five-year plan to track progress and create updates on an annual basis. It must be noted that more recent data becomes available on an almost daily basis. The data upon which this plan is written were the best available as of early 2009. Updates can be accessed through the Connecticut Cancer Partnership website: ctcancerpartnership.org.

Special acknowledgement to: Jennifer Jainer and Manasi Watts of Holt, Wexler and Farnam, LLP for facilitating the development and production of this plan.

For more information:

To join the Connecticut Cancer Partnership, to get copies of this Plan, or for more information, please go to our web site:

http://ctcancerpartnership.org

Connecticut
CANCER
Partnership

The Power of Unity

Executive Summary

Cancer was responsible for the deaths of 6,994 Connecticut residents in 2006, making it the second leading cause of death in the state.[1] A closer examination of these statistics reveals areas of opportunity to significantly reduce the burden of cancer. Lung, colorectal, female breast, and prostate cancers account for more than half of all new cancers and cancer-related deaths. Many of these cases are preventable through the promotion of healthy lifestyle choices, cancer screening, and access to high quality care.

The Connecticut Cancer Partnership (Partnership) has created the **Connecticut Cancer Plan 2009-2013** to build upon and carry forward the work outlined in the *Connecticut Comprehensive Cancer Control Plan 2005-2008*. The first Plan began the process of inclusive cancer control planning, following guidelines laid out in 1998 when the U.S. Centers for Disease Control and Prevention (CDC) established the National Comprehensive Cancer Control (CCC) Program and began to fund planning for state programs. Ideally, CCC programs offer an integrated and coordinated approach to reducing cancer incidence, morbidity, and mortality, through prevention, early detection, treatment, rehabilitation, and palliation.[2]

The Connecticut Cancer Partnership believes that to take full advantage of the synergy created by the collaborative approach to cancer control, it is important to recognize that cancer shares common risk factors with many other chronic diseases, such as heart disease, stroke, diabetes, and lung disease. Aligning with other chronic disease initiatives in the state will help make the best use of scarce health care resources. The full-time Director hired in 2008 by the Board of Directors, energizes the Partnership and its committees to continue the work of assessing needs, tracking progress, and identifying ongoing programs and future opportunities as presented in the **Connecticut Cancer Plan 2009-2013**.

The Connecticut Cancer Partnership's approach: a) reflects national goals and guidelines such as the U.S. Department of Health Human Services' *Healthy People 2010*, American Cancer Society's (ACS) 2015 goals, the National Cancer Institute's *Accelerating Successes Against Cancer* and the Institute of Medicine's *Assessing the Quality of Cancer Care*, b) recognizes the need for enhanced research findings and improved clinical trial participation throughout the cancer continuum, c) incorporates the underlying theme of access and disparities in incidence of disease and outcomes throughout, and d) is based on the vision, expertise, and judgment of a broad coalition of partners in the state.

The cancer continuum is addressed by committee sections. Continuum committee priorities have been defined. Strategies have been identified. Actions required in overarching areas such as advocacy, evaluation, disparities and access, and communications and education, have been delineated. Recognizing that these disciplines have responsibilities that bridge the continuum, the Partnership has committees or work groups that concentrate on providing the skills, actions, and support required to implement improvement across the spectrum of cancer.

The Continuum Sections:

- ***Prevention*** focuses on categories of risk factors that are modifiable: life style and carcinogen exposures. It identifies risk reduction behaviors that can significantly reduce the odds of a cancer diagnosis.
- ***Early detection***, also referred to by public health experts as secondary prevention, identifies screening tests that can improve outcomes by detecting cancers in early stages when treatment is more likely to be successful.
- ***Quality treatment*** addresses the need for assuring that high quality, evidence-based cancer care is available to all residents in the state. It emphasizes the need for education of patients and providers regarding treatment options for ongoing scientific research, and for participation in clinical trials.
- ***Survivorship*** concentrates on the needs of survivors, focusing on goals to ensure that cancer survivors and their caregivers experience a high quality of life with appropriate information and ongoing care planning.
- ***Palliative and hospice care*** emphasizes the need to ensure a high quality of life and to reduce suffering through an interdisciplinary holistic approach. This section addresses the importance of ensuring that all Connecticut residents have access to services to meet these needs throughout the cancer journey.

The process of identifying immediate priorities is founded on the belief that the commitment to comprehensive cancer control will be ongoing and future commitments of resources will build on the success and lessons learned from the preceding years' focus. We must work to ensure that there will be continuing opportunities to invest in rationally allocating resources to our shared visions.

Many of the objectives outlined in this Plan focus on seeking funding to support specific activities. They address policy changes that may impact the future of our residents. Sustaining an initiative as bold and comprehensive as the Partnership's with ongoing funding is a challenge. One of the paramount values of the Connecticut Cancer Partnership and its relationship with the Connecticut Department of Public Health (DPH) is the ability to leverage state resources to enhance all cancer-related programs that function on a day- to- day basis.

This new Plan requires strong leadership, continued commitment of partner agencies, and access to funding. By building on a solid record of accomplishment, data-driven strategies, and the dedication of its members, the Partnership will continue to strive to achieve its goal to reduce the burden of cancer and improve the quality of life of people living with cancer in Connecticut. We ask you all to join us in this important endeavor.

The following pages highlight the goals and objectives of the Partnership's committees.

2009 – 2013 Cancer Control Plan Continuum Committee Objectives

Prevention

Goal: Reduce cancer risk, incidence, and mortality through the development and adoption of policies and interventions that support healthy lifestyles and risk reduction practices among children and adults.

- Decrease tobacco use among adults (≥ 18 years) from 15.4% to 12%; among youth (grades 9-12) from 21.1% to 10%, and among low socioeconomic status adult smokers by 25%.
- Increase the percentage of adults (≥ 18 years) who consume at least five fruits and vegetables a day from 28.5% to 75%; and youth (high school and middle school) from 21.5% to 75%.
- Increase the percentage of people who engage in regular physical activity (ACS activity guidelines) from 52.4% for adults and 45.1% for youth to 70%.
- Reduce cancer-related environmental exposures at home and in the workplace.
- Increase the percentage of persons who use sunscreen and practice sun/ultraviolet protection behaviors that may reduce the risk of skin cancer from 50.4% for adults and from 10.3% for youth to 75%.
- Decrease the percentage of adults and youth consuming alcohol: from 5.9% to 4% for adults who exceed the ACS recommendations for drinks per day; and from 46% to 40% of high school students who consume alcohol; and reduce to 20% the percentage of high school students who report binge drinking. Increase the practice of safe sexual behaviors in youth and adults.

Early Detection

Goal: Ensure that Connecticut residents receive appropriate and timely cancer screenings to detect cancer as early as possible, using quality, accessible, affordable, comprehensive, and evidence-based methods.

- Increase the percentage from 82% to 90% of women age 40 and over who have had a mammogram in the past 2 years.
- Increase from 90.3% to 95% the percentage of women participating in the Connecticut Breast and Cervical Cancer Early Detection Program who receive appropriate follow-up and diagnosis within 60 days from 90.6% to 95% after receiving abnormal breast cancer screening results.
- Increase the percentage of women 18 years of age and over who have had a Pap test within the past 3 years from 86.8% to 90%.
- Increase the percentage of adults aged 50 and over who have had appropriate screening for colorectal cancer.
- Increase the proportion of Connecticut residents who know the early signs and symptoms of lung, ovarian, prostate, testicular, skin, and oral cancers, for which there are no recommended evidence-based screening modalities.

Quality Treatment

Goal: *Ensure that Connecticut residents will have access to high quality cancer care (evidence-based where possible) consistent throughout the state.*

- Increase the numbers of patients and health care providers who have recent and comprehensive information about cancer treatment and standards of care.
- Increase the number of Connecticut patients participating in clinical trials.
- Increase the number of approved cancer programs and oncology certified/specialized health care professionals in Connecticut.

Survivorship

Goal: *Ensure a high quality of life and care for all Connecticut residents living with cancer and for their families.*

- Increase the proportion of provider referrals and cancer survivors who access and use survivor support services.
- Increase the number of health care providers who are knowledgeable about survivorship care.
- Increase the number of providers, families, and caregivers who are knowledgeable about the needs of children surviving cancer.
- Increase the proportion of cancer survivors who practice positive health behaviors regarding weight, diet, physical activity, tobacco and alcohol use, sun exposure, and cancer screenings, using culturally appropriate methods.

Palliative And Hospice Care

Goal: *Ensure that high quality palliative and hospice care services are available and accessible to all Connecticut residents.*

- Increase the number of health care professionals who specialize in or are certified in palliative and hospice care. Increase from 27 to 30 the number of physicians; from 163 to 250 the number of certified nurses; and from 0 to 6 the number of nursing administrators.
- Increase the number of health care settings offering palliative and hospice care services. Increase from 14 to 20 the number of hospitals offering palliative care services; and from 32 to 40 the number of Home Care Providers with Hospice Licensure.
- Increase number of people served by palliative and hospice care initiatives, including current pediatric, prison, and Veterans' initiatives, that address targeted and/or medically underserved population groups.
- Increase the proportion of patients receiving effective pain management.
- Increase the percentage of Connecticut residents who receive hospice care in a timely manner and at home. Increase from 28% to 35% the percentage of Medicare patients in Connecticut who are on hospice benefit at time of death; from 27.7% to 35% the percentage of persons receiving hospice care at home at time of death; and increase from 45 to 56 days the average length of stay on Medicare hospice benefit prior to death.

Cross-Cutting Committee Goals and Roles

Disparities And Access

Goal: Maintain a consistent focus on eliminating disparities within the context of the each of the continuum committees' objectives and strategies.

Communications, Education And Training

Goal: Provide an active, coordinated communications program that will raise awareness about the Plan and the Partnership for a wide variety of audiences.

Advocacy

Role: Monitor and promote legislation to forward the efforts of the Plan.

Data, Evaluation And Surveillance

Role: Support the surveillance and evaluation efforts of the Connecticut Cancer Partnership.

1 Connecticut Department of Public Health. Mortality tables. http://www.ct.gov/dph/cwp/view.asp?a=3132&q=397432

2 Centers for Disease Control and Prevention. About the National Comprehensive Cancer Control Program. http://www.cdc.gov/cancer/ncccp/about.htm

Introduction

Cancer remains the second leading cause of death (after heart disease) in the United States and in Connecticut. The death rate has been decreasing, from 187.6 per 100,000 population in 2000, down to 176.3 per 100,000 population in 2006[3] and the overall rate of annual new cancer cases has stabilized. These gains are due in large part to increased prevention efforts, earlier detection, and improved treatments.

The American Cancer Society estimates that "In the US, men have slightly less than a 1 in 2 lifetime risk of developing cancer; for women, the risk is a little more than 1 in 3."[4] In Connecticut, four types of cancer (lung, colorectal, breast, and prostate) account for more than half of all new cancers and of all cancer deaths. Many of these cases could be prevented by lifestyle changes (e.g., smoking cessation, changes in diet) or by early detection through screenings (e.g., colonoscopy/ sigmoidoscopy, mammography) coupled with timely follow-up and treatment.[5]

In November 2008, the *Journal of the National Cancer Institute* published an online report stating that the overall incidence of cancer and death due to cancer dropped for the first time in the United States for both men and women. The overall decline is due to decreases in the three most common cancers in men (prostate, lung, and colorectal) and in two of the three most common cancers in women (breast and colorectal).

> *"The observed decrease in the incidence and death rates from all cancers combined in men and women overall and in nearly all racial and ethnic groups is highly encouraging. However, this must be seen as a starting point rather than a destination. A dual approach will be needed to sustain and extend this progress into the future. First, the application of existing knowledge must be improved so that evidence-based interventions reach all segments of the population. Second, ongoing research is needed to improve our current methods of prevention, early detection, and treatment."*[6]

The Connecticut Cancer Partnership celebrates this good news, and acknowledges the importance of continuing its efforts to reduce cancer incidence, morbidity, mortality, and disability in Connecticut and to improve the quality of life for those affected by cancer.

3 Connecticut Department of Public Health. Mortality tables. http://www.ct.gov/dph/cwp/view.asp?a=3132&q=397432

4 American Cancer Society. Cancer Facts and Figures 2008. http://www.cancer.org/docroot/STT/content/STT_1x_Cancer_Facts_and_Figures_2008.asp?from=fast.

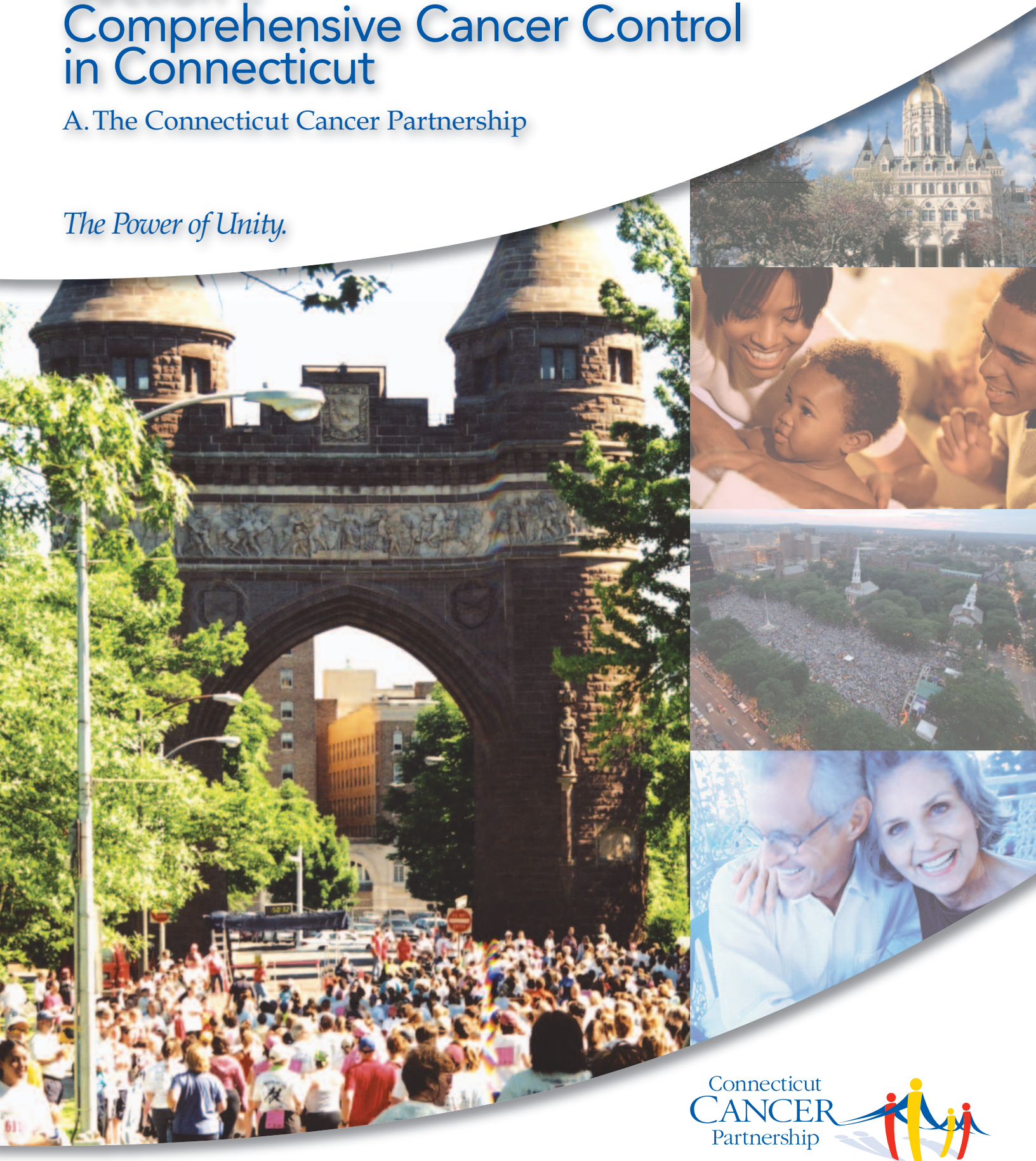
5 According to the National Cancer Institute, "cancer is a term used for diseases in which abnormal cells divide without control and are able to invade other tissues." Over 100 different diseases fall under the umbrella term 'cancer.' Cancer develops when the DNA body cells are damaged and do not repair themselves or die as they normally would. Rather, these damaged cells begin to duplicate and invade the rest of the body.

6 Annual Report to the Nation on the Status of Cancer, 1975-2005, Featuring Trends in Lung Cancer, Tobacco Use, and Tobacco Control. *J Natl Cancer Inst.* 2008; 100: 1672-1694.

Section I: Comprehensive Cancer Control in Connecticut

A. The Connecticut Cancer Partnership

The Power of Unity.



Connecticut CANCER Partnership

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Section I. Comprehensive Cancer Control in Connecticut

A. The Connecticut Cancer Partnership

In 1998, the U.S. Centers for Disease Control and Prevention (CDC) established the National Comprehensive Cancer Control (CCC) Program and began to fund planning for state programs. Ideally, CCC programs offer an integrated and coordinated approach to reducing cancer incidence, morbidity (that is, illness or impairment related to a disease), and mortality through prevention, early detection, treatment, rehabilitation, and palliation.[1]

2002: The Connecticut Department of Public Health (DPH) responded by creating the Connecticut Cancer Partnership. The Partnership assesses the burden of cancer, sets priorities, and develops a framework that encourages partners to implement comprehensive cancer control activities in the state. Representatives from the five founding member organizations (the Connecticut Department of Public Health, the New England Division of the American Cancer Society, the Yale Cancer Center, the University of Connecticut Health Center, and the Connecticut State Medical Society) formed the Partnership's initial leadership group to direct the planning process, create committees, guide the assessment and evaluation processes, and expand the Partnership.

2003: The Partnership launched the planning process at a statewide conference with participation from more than 100 stakeholders. During this forum, conference participants signed on to Partnership committees corresponding to the cancer continuum of care, including prevention, early detection, treatment, survivorship, and palliative and hospice care. These five committees, later to be known as the continuum committees, developed initial vision statements and goals.

2005: *The Connecticut Comprehensive Cancer Control Plan 2005 – 2008* was published and distributed in 2005. To accomplish this, the continuum committees met regularly over a period of four (4) months to review evidence-based research, pertinent literature, and data to refine goals and formulate objectives and strategies. They also reviewed existing cancer prevention and control programs. Four cross-cutting issues quickly emerged across the continuum of care: advocacy; health disparities; communications; and data, surveillance, and evaluation. The cross-cutting committees investigated these issues and prepared objectives and strategies for inclusion in the Plan.

2006: Budget bill of $7.15 million was signed by Governor M. Jodi Rell allocating new funding to the Partnership to implement the *Connecticut Comprehensive Cancer Control Plan 2005 - 2008*.

2008: The Partnership Board of Directors hired a full-time Director. Five committees continue to track cancer in Connecticut through the continuum and four cross-cutting committees support the Partnership activities. Additional committees focus on Partnership operations.

2009: **Connecticut Cancer Plan 2009-2013** – A renewed call to action to combat the challenges of cancer with fresh solutions and strategies results in the new Plan.

1 Centers for Disease Control and Prevention. About the National Comprehensive Cancer Control Program. http://www.cdc.gov/cancer/ncccp/about.htm.

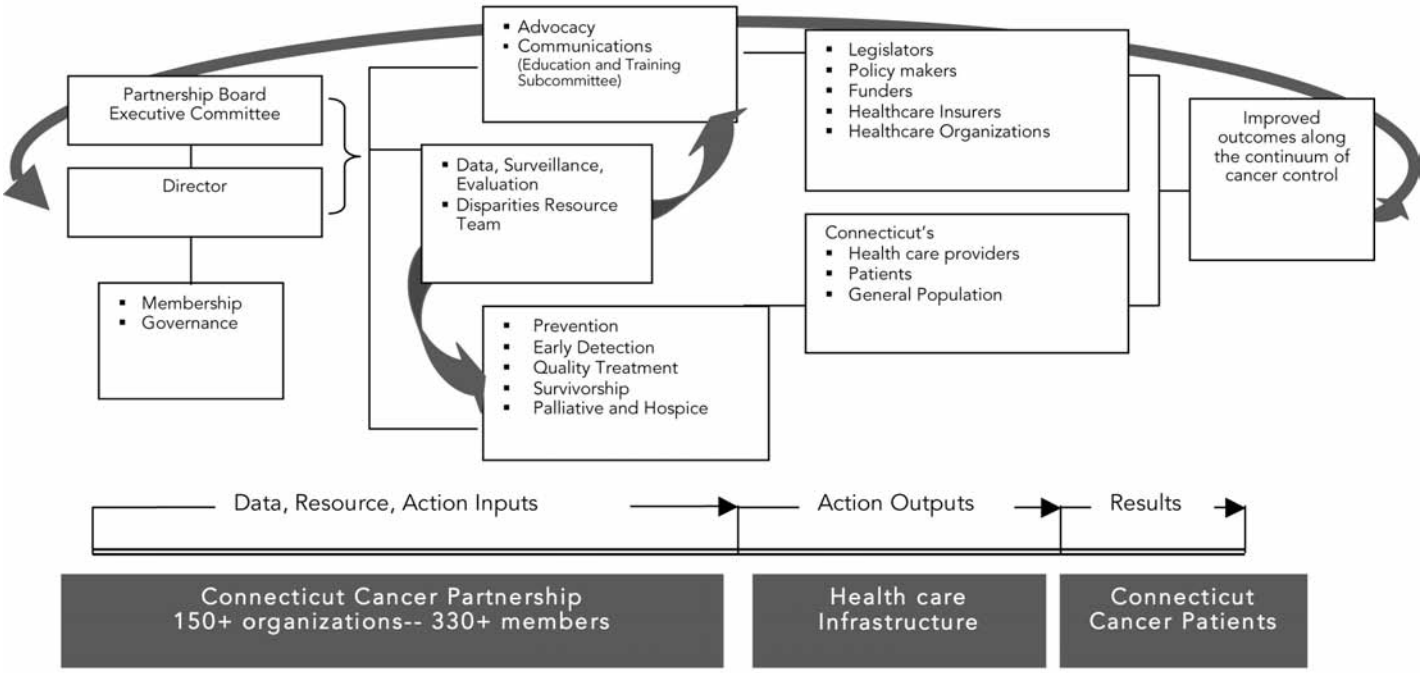
As shown in the diagram below, the Partnership has expanded to include over 330 individual members representing more than 150 organizations—a broad coalition of Connecticut's cancer community. This diverse consortium (including academic and clinical institutions, state and local governmental health agencies, industry and insurers, advocacy and community groups, and cancer survivors) is united to combat cancer and improve the quality of life of Connecticut residents living with cancer.

Connecticut Cancer Plan 2009-2013 begins with a brief overview of Connecticut's renewed approach to cancer control. The accomplishments of the *Comprehensive Cancer Control Plan 2005-2008* are briefly outlined. Section II details the challenges of cancer in Connecticut today. It delineates the new objectives and strategies to address these challenges throughout the continuum of cancer control: prevention, early detection, treatment, survivorship, and palliative and hospice care. The cross-cutting committees and how they support the work of the Partnership are discussed. Section III describes the process of prioritizing objectives and the infrastructure required to move goals forward. The last section includes an acronym list, the appendices and other information referred to in the text.

In spite of substantial accomplishments, much remains to be done.

- Cancer will likely increase in Connecticut as the population ages.
- Disparities persist: Gaps remain in connecting segments of the populations with prevention resources and quality care. Minority residents continue to be at increased risk.
- The increased incidence of obesity and lower physical activity in the general population raises the risk of cancer and other chronic diseases.

While it is not yet possible to eradicate cancer, the **Connecticut Cancer Plan 2009-2013** continues to address these challenges, as the Partnership and its members work to eliminate disparities, and to reduce the burden of cancer.



Section I: Comprehensive Cancer Control in Connecticut

B. Connecticut's Approach to Comprehensive Cancer Control

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B. Connecticut's Approach to Comprehensive Cancer Control

Building on a Foundation

The *Connecticut Comprehensive Cancer Control Plan of 2005-2008* created a foundation of awareness and action throughout the state about comprehensive cancer control. The Partnership's extensive outreach efforts have increased the appreciation for a coordinated approach. Despite limited resources, this coordination has resulted in significant achievements made by our partners despite limited resources. Based on the lessons learned through the development and implementation of the *Connecticut Comprehensive Cancer Control Plan 2005-2008*, the Partnership has refined its approach to gathering input from its member organizations and to incorporating members' organizational goals into an overarching and coordinated approach to cancer control in Connecticut.

Who Does the Work?

- Hospitals
- Local health departments
- Clinics
- Community health centers
- physicians' offices
- Non-profit organizations
- Advocacy groups
- Educational and academic programs
- Volunteers

In the process of developing the **Connecticut Cancer Plan 2009-2013**, the committees reviewed and evaluated the processes and outcomes of activities accomplished. A formal external evaluation process was conducted. These reviews recommended that the new Plan build on the foundation of the earlier approach, while exploring some additional avenues.

What Does the Connecticut Cancer Partnership Do?

The Connecticut Cancer Plan 2009-2013 identifies many steps that should be taken to reduce the burden of cancer in Connecticut. A critical question to address at the beginning is: how does the Plan get implemented? It is important to recognize that the work described in this Plan is done by the organizational members of the Connecticut Cancer Partnership—the hospitals, local health departments, clinics, community health centers, physicians' offices, non-profit organizations, advocacy groups, educational and academic programs, and the people who work or volunteer for them.

These are the organizations who know their own communities and clients, who are able to recognize local barriers to access to care, and who know what resources may be available to overcome these barriers.

The Partnership supports the work of its members through its **Connecticut Cancer Plan 2009-2013**, its Board of Directors and committees. It provides a statewide context for cancer-related programming. It takes the expertise of its well over 300 individual members representing 150 member organizations and develops a framework in which each organization can see that it has a place. This approach maximizes the use of limited resources. It helps to identify gaps and reduce duplication in service provision. It allows for the sharing of lessons learned and best practices.

The Partnership does not exist as an entity to serve individuals or compete for resources with organizations that do. As you read through this document, please keep in mind this important distinction of roles. The overall goal of the Partnership is shared by all members: to reduce the burden of cancer in Connecticut. The complicated nature of cancer, indeed of any life-threatening disease, requires that it be broken down into steps along the continuum from prevention of the disease through the end of life. **The Connecticut Cancer Plan 2009-2013** follows that approach. Each section addresses goals, objectives, and strategies that have been reached by consensus among the Partnership's partners. The specific activities will be achieved by member organizations, working in accordance with their own organizations' missions. The verbs used in the strategies reflect this approach: collaborate, support, maintain, coordinate, disseminate, promote, link, advocate, and integrate. Note: We have tried to avoid language that implies the Partnership exists as an implementing institution.

Collaboration between the American Cancer Society and twelve hospitals in Connecticut (as of April 2009) is an example of a cooperative approach to providing the best cancer care possible in community settings. The agreements, executed by this founding member of the Partnership, describe the shared commitment: to provide comprehensive and best practice cancer information, care and support services to cancer patients, to reach out to all community members to raise awareness of cancer, to build and maintain support for the fight against cancer, and to encourage cancer prevention and early detection at all levels in the community. The collaboration helps hospitals meet the American College of Surgeons Commission on Cancer standards in information, patient support, evidence-based cancer prevention and detection, advocacy, communications, and specifies support of and participation in the Connecticut Cancer Partnership.

The examples listed below, are activities of other member organizations currently underway or recently concluded which are operating in accordance with the *Connecticut Comprehensive Cancer Control Plan 2005-2008*, with oversight by a specific Connecticut Cancer Partnership committee:

Prevention:

- Smoking cessation services
- Risk factor reduction efforts through coordination with nutrition, physical activity, and obesity prevention partners

Early Detection:

- Development and implementation of a pilot colorectal cancer screening program at eight community health centers to provide six hundred colorectal cancer screenings for Connecticut residents between the ages of 50-64 who have no health insurance or have health insurance that does not cover a colonoscopy, as well as development and provision of outreach and educational trainings to the community health centers and a statewide colorectal cancer public education initiative in collaboration with the Partnership.

Quality Treatment:

- Professional education programs to improve use of evidence-based standards of care
- Increased availability of pain management programs
- Pilot survey of barriers to participation in clinical trials
- Clinical trials education programs

Survivorship:

- Enhancement of survivorship resource information through the Connecticut Cancer Partnership and American Cancer Society. This collaborative project is an example of the leveraging of organizational resources to enhance the ability of partnership membership organizations to meet the needs of cancer patients. It will serve as a model for the collaborative sharing of in-kind resources that provides sustainability for the work of the Partnership and demonstrates value of Partnership membership.

Palliative and Hospice Care:

- Development and evaluation of end-of -life care and pain management professional education programs

These activities demonstrate how the work of the partnership enhances the overall capacity of the health care system in Connecticut. They build on existing programs in a coordinated, rational, and collaborative manner. Through sharing and coordination that favorable outcomes are achieved. The **Connecticut Cancer Plan 2009-2013** goals are implemented in an efficient, cost-effective, and productive manner. Synergy is generated as the driving force for comprehensive cancer control in Connecticut.

Accomplishment Highlights: Since 2003, the Connecticut Cancer Partnership with guidance from the Connecticut Department of Public Health has established relationships to coordinate cancer-related activities and resources to meet the goals of its *Comprehensive Cancer Control Plan 2005-2008*. Efforts have been made by many organizations to fulfill the needs of Connecticut's population across the continuum of the cancer experience. Through the work of its member organizations, and in collaboration with the Connecticut Department of Public Health, the Partnership has made a significant impact on cancer outcomes and related services in Connecticut.

Highlights of the accomplishments, funded by dollars allocated by the state and tied to the activities identified in the *Connecticut Comprehensive Cancer Control Plan 2005-2008* are briefly summarized below. Greater detail on these and other accomplishments organized by committee focus can be found in a separate report available on the Partnership website. http://ctcancerpartnership.org/

The Plan in Action 2005-2008

2005 – Schools are required to have wellness programs

2006 – Schools have ban on sodas, sweetened drinks in schools.

600 underserved adults, through grant and targeted effort, could receive colorectal cancer screening

As of April 30, 2008 **9,567** individuals have registered with the Quitline—a tobacco cessation program

Health care professionals certified in Palliative and Hospice care **doubled**, between the years 2004-2008

June 2008 Medicaid coverage for hospice services signed into law

The $7.15 million budget bill signed by Connecticut Governor M. Jodi Rell in 2006 allocating new funding to the Partnership to implement the *Connecticut Comprehensive Cancer Control Plan 2005–2008* supported numerous projects along the continuum of cancer control, including:

- Publication of the *Connecticut Comprehensive Cancer Control Plan 2005–2008* press releases, and awareness campaigns
- Creation of statewide smoking cessation program targeting Medicaid recipients
- Pilot testing of evidence-based nutrition curriculum in Connecticut schools
- Enhancement of the state's Breast and Cervical Cancer Early Detection Program
- Development and implementation of a program promoting colorectal cancer screenings for state residents
- Development and implementation of a statewide clinical trials network
- Identification and provision of services for cancer survivors
- Identification and provision of services to organizations that offer educational programs on palliative and hospice care
- Evaluation of the Connecticut Cancer Partnership efforts to date and related projects

Working with Partners in Plan Development

The Partnership engaged new and current organizational partners in the planning process to develop the **Connecticut Cancer Plan 2009-2013**. Each continuum committee, composed of representatives of many cancer-focused organizations across the state, worked over a period of ten months. They developed new goals, objectives, and strategies, which were presented to workgroups during the Connecticut Cancer Partnership's 2008 Annual Meeting. This process served not only to educate participants, but also to engage new and potential partners in selecting priority objectives for implementation.

The 2009 legislative agenda was developed in a subsequent Board of Directors meeting. This agenda addresses activities for which funding appropriations are being sought to address year one priorities, as well as advocacy activities not related to funding needs but reflecting Partnership positions.

The Board of Directors is committed to working with partner organizations to respond to specific needs and areas of concern. Activities addressing emerging or special issues will be implemented throughout 2009-2013. This may include working with partners on the development of work groups, forums, and educational programs on new research findings or best practices.

Addressing Disparities

The overarching issue of disparities in and access to prevention and health care resources cuts across all continuum priorities. Disparities may be due to health literacy issues, language barriers, access, culture, socioeconomic status, or race/ethnicity.[1] Recognizing that its existing structure was not sufficient to the task of having a strong consistent focus on disparities, the Partnership has established a Disparities Resource Team in 2008 to work with each committee. This team is serving as a liaison and expert resource to ensure that each committee addresses disparity issues across the continuum. (See Section II. C.1 for detail on disparities and access.)

Collaboration with Chronic Disease Initiatives

The Partnership recognizes the importance of working with other chronic disease initiatives to address common risk factors. Activities targeting risky lifestyle behaviors can help prevent asthma, diabetes, heart disease and stroke, HIV, arthritis, and cancer. This Plan includes objectives that align with current implementation efforts through plans addressing the most prevalent chronic diseases and their critical risk factors. A comprehensive approach to chronic disease prevention simultaneously improves the capacity and effectiveness of the individual programs. This concept has additional significance when applied to populations suffering from disparities and co-morbidities. By working collaboratively to achieve common goals, the Partnership hopes to reach underserved populations with prevention efforts, gain insight on new and effective methods, and combine efforts to raise awareness and educate both the provider and patient communities.

The Partnership identified the Chronic Care Model (developed by Ed Wagner, MD, MPH, Director of the MacColl Institute for Healthcare Innovation, Group Health Cooperative of Puget Sound). It addresses the need to improve delivery of care to patients with a variety of chronic diseases.[2] The model's six domains (self-management, decision support, delivery system design, clinical information systems, the organization of health care, and community) relate to objectives contained in the **Connecticut Cancer Plan 2009-2013**. Aligning with chronic disease management improvement strategies, such as those addressing asthma, congestive heart failure, and diabetes can ensure that health care resources are most effectively used to meet the needs of patients. This concept has additional significance when applied to populations suffering from disparities and co-morbidities. (See Appendix B.3 for more information on the chronic care model.)

Connecticut's Data System

A comprehensive system of data collection, analysis, and reporting is critical for assessing, monitoring, and evaluating the status of cancer within our state. Although essential systems already in place provide the basis for our current understanding of cancer trends in Connecticut, the committees found some unmet needs. The following are key elements of Connecticut's data system for cancer.

Data system elements that include cancer diagnosis, treatment and mortality: These systems are population-inclusive, containing information for all occurrences through mandated reporting processes that comprise our vital records, tumor registry, and hospitalization reporting systems.

- The **Connecticut Tumor Registry** is the oldest state registry of reported cancers in the United States with records dating back to 1935. It is a part of the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) Program and, together with other SEER registries across the country, comprises the data system used for setting national cancer prevention and treatment priorities. In Connecticut, this registry is established by Connecticut General Statutes which require that all new cancer cases, along with information on follow-up and treatment, be reported to the Connecticut Tumor Registry. Data are submitted by all Connecticut hospitals and pathology laboratories and by other states (through reciprocal agreements) for Connecticut residents with cancers that are diagnosed or treated across state lines. This registry is a significant source of the cancer data discussed in Section II-A, The Burden of Cancer in Connecticut. The Connecticut Tumor Registry also serves as a data source for research projects focused on specific cancer-related issues and trends locally, nationally and internationally.

- The **Hospital Discharge and Billing Database**, established in 1991 and maintained by the Office of Health Care Access, provides a means for assessing hospitalization trends, including costs, for Connecticut residents. These data are a potential source for many cancer-specific analyses and are a significant source for economic analyses of hospitalizations.
- The **Connecticut Death Registry** has been in existence since 1848 and is maintained by the Department of Public Health Vital Records Section. These data include cause-of-death information and provide a means for tracking mortality trends of cancer-related deaths.

Data system elements that assess behavioral risk for cancer: These systems are population-based and include data obtained from representative samples of Connecticut residents. How well the findings describe specific population groups within the state depends upon the sampling methods and the funding available to support the system in any given year. These data systems provide a point-in-time estimate of behavior and, when repeated periodically, a means to monitor changes in behavioral trends over time. The information collected by these systems provides a significant means to assess health-related changes in knowledge, attitudes, and behaviors within the state's population. It also provides an indication of the overall progress being made by public health programs to improve the public's health. Given adequate resources, these systems can offer a glimpse into the general trends occurring within specific population and/or geographic groups. They can also suggest questions for further review and/or clarification by other investigational techniques.

- The **Behavioral Risk Factor Surveillance System (BRFSS)** is a national effort. Every state collects health-related risk and behavior data, including those that are cancer-related, for adults 18 years of age and older. The BRFSS is a telephone survey of households that are randomly selected. Each year, a core set of questions is included by every state to establish national trends. Optional questions are selected for inclusion by individual state health departments to address the specific concerns within that state. In Connecticut, this system is implemented by the Department of Public Health with funding from the Centers for Disease Control and Prevention. The determination of which questions are included each year is dependent upon strategic health priorities and the funds availability of funding to support the sampling methods needed to ensure meaningful results. This data system reveals state trends related to health behavior and risk among adults.
- The **Connecticut School Health Survey** is administered in Connecticut every two years to students in grades 9 through 12. This data collection system combines two national data sources, the **Youth Risk Behavior Surveillance System (YRBSS), through the Youth Risk Behavior Survey (YRBS)** and the **Youth Tobacco Survey (YTS)** to more fully serve the needs of Connecticut's public health and prevention programs addressing health risk behaviors among youth. It is managed by the Department of Public Health with the cooperation of the State Department of Education (SDE) and funding from the Centers for Disease Control and Prevention. This data system helps clarify state trends related to health risk behaviors among Connecticut's youth.

Taken together, the above system elements provide essential epidemiologic data used for assessing the state's burden of cancer as described and illustrated throughout this plan and in particular, in Section II-A, *The Burden of Cancer in Connecticut*. However, the current routine analyses of these data are not always sufficient to assess and monitor specific trends along the continuum of cancer care. Additional analyses of these data could help assess and monitor specific trends along the continuum. These further analyses have the potential to generate meaningful findings as well as demonstrate changes in morbidity and mortality resulting from our collective efforts.

Additional Data Resources and Recommendations: Data relevant to the burden of cancer are collected and analyzed within the health care system by insurance providers, Department of Public Health programs, state and community-based service providers, and by various entities for specialized studies. For example, the DPH Epidemiology Program has been funded by the CDC as an Emerging Infections Program site, based at Yale School of Public Health, to begin surveillance for early outcomes of HPV infections that lead to cervical cancer.[3] The frequency and extent of collection, analysis, and reporting of such data are unique to each specific program and/or purpose as well as the resources available. These data form a mosaic of information with varying degrees of utility and relevance for addressing comprehensive cancer care in Connecticut.

Within this plan, there are numerous references to the need for additional data collection or access to existing information. The Data, Surveillance, and Evaluation (DSE) Committee is committed to promoting conditions for accurate, timely, relevant, and comprehensive study of cancer trends within Connecticut. To this end, the Partnership encourages routine collection, analysis, and dissemination of information regarding:

- Prevalence of known and suspected biological, behavioral, environmental and societal risks among the population;
- Occurrence of cancer-related disorders, including inflammatory bowel disease, and pre-malignant conditions such as cervical intraepithelial neoplasia and adenomatous polyps, that may provide useful information relating to prevention and screening activities;
- Development, delivery, and evaluation of clinical preventive services (counseling, screening and follow-up) for at-risk and vulnerable population groups;
- Progression and outcomes of diagnosed cancers in Connecticut;
- Systems, procedures, and practices for augmenting and linking surveillance, services, and evaluation data pertinent to:
  - health care access, utilization, expenditures and satisfaction among persons with or at-risk of cancer;
  - unmet needs of patients, providers, and caregivers for cancer-related information and services.

The DSE Committee supports an emphasis on projects and efforts designed to a) acquire, analyze and report data on health and cancer trends for Connecticut and regions within, b) disseminate to relevant stakeholders information regarding the availability and uses of information related to cancer surveillance, service utilization and/or program evaluation, c) assure a workforce competent in principles and methods of disease surveillance and/or program evaluation, and d) advocate for evidence-based (i.e. based upon supporting data and documented best practices) policies and programs to reduce the burden of cancer within the State. Projects that could advance data, surveillance, and evaluation of the quality of cancer care within the state might include:

- An inventory or information clearinghouse of available data resources related to cancer care in Connecticut, including access and usage policies or restrictions;
- Mechanisms to facilitate linked data analyses across state agencies;
- Analysis of health economics and return-on-investment for Connecticut's cancer initiatives;
- Recruitment and retention efforts to encourage careers in cancer control (particularly among population groups that are underrepresented in the various career fields);
- Training programs to enhance and update cancer control workforce skills (e.g., Geographic Information Systems (GIS), exploratory data analysis techniques, health data and information management systems, program evaluation, performance-based decision-making, etc.);
- Patient needs and satisfaction studies;
- Development of Electronic Medical Records (EMR) to facilitate the linkage of clinical services data to health (cancer) outcomes;
- Evaluation and utilization of E-Path (electronic reporting software for the automatic selection and transmittal of cancer cases to the Connecticut Tumor Registry); and
- An inventory or information clearinghouse of available data resources related to cancer care in Connecticut, including access and usage policies or restrictions.

Reflecting National Goals

On February 24, 2009, President Barack Obama renewed our nation's goal to cure cancer in his speech to a joint session of Congress.[4] This plan is Connecticut's blueprint to help reach that goal. In developing our Plan, we studied key national efforts to set and meet cancer control goals. Our objective was that Connecticut's activities addressing cancer must fit within the context of the greater battle against cancer at the national level. While our objectives are designed to be measurable within the context of Connecticut's data, the overall goals relate to national guidelines and benchmarks. We relied in particular on four sets of national guidelines developed to establish effective standards in the nation's cancer control efforts. These are: the U.S. Department of Health and Human Services' *Healthy People 2010*, the American Cancer Society's *2015 goals*, the National Cancer Institute's *Accelerating Successes Against Cancer,* and the Institute of Medicine's *Assessing the Quality of Cancer Care*. A selection of these goals and their source documents are listed in Appendix B2.

Research

Research has revolutionized the entire human experience with cancer and is now progressing at such a rate as to make obsolete assumptions from as recent as a decade ago. As the introduction to the National Cancer Institute's 2009 Annual Plan states:

"The convergence of new biomedical technologies with information technologies has revealed to us just how complex cancer truly is. Indeed, the biology of cancer is intimately intertwined with the unique genetics of each person, making it an "individualized" disease. The ability to deliver individualized interventions to patients requires the integration and collaborations of disciplines not traditionally thought of as part of cancer research. This broader view of the cancer research community extends to mathematicians, physicists, and chemists as well as others in the physical sciences and relies on their skills and talents to enhance our ability to manage large amounts of data as well as developing novel applications in clinical research… In addressing the burden of cancer, there is an essential unity between fundamental scientific studies on the molecular causes of cancer, research focused on translating those studies into the clinic, and actual clinical practice. The traditional linear relationship from the bench to the bedside is no longer an effective and efficient model for medical progress. Insights from fundamental scientific research need to be tested in clinical settings, which in turn give rise to new research directions that can be pursued in the laboratory."[5]

Cancer research is an area that demands cross-cutting implementation. Advocacy of research, some of which may support policy change in identified areas will be an ongoing initiative of the Partnership. Communication about research to appropriate diverse audiences is critical. (See Advocacy and Communication Sections) Progress in genomics research continues to lead to advances in the prevention, detection and treatment of cancer. The Connecticut Cancer Partnership is committed to working with the Genomics Office at the Department of Public Health, whose purpose is to promote the responsible and effective translation of current and emerging genome-based information into health benefits for the population of Connecticut. Science-based complementary and alternative medicine information and multidisciplinary approaches to prevention and care are best handled with the type of consistent approaches facilitated by comprehensive cancer control.

1 Agency for Healthcare Research and Quality. National Healthcare Disparities Report. http://www.ahrq.gov/qual/nhdr03/nhdrsum03.htm.

2 Institute for Healthcare Improvement. Chronic Conditions. http://www.ihi.org/IHI/Topics/ChronicConditions/AllConditions

3 Yale School of Public Health, Emerging Infections Program.http://info.med.yale.edu/eph/eip/HPV.htm

4 The New York Times, President Obama's Address to Congress, http://www.nytimes.com/2009/02/24/us/politics/24obama-text.html?pagewanted=print

5 The Nation's Investment in Cancer Research: Connecting the Cancer Community: An Annual Plan and Budget Proposal for FY 2009. National Cancer Institute. http://plan2009.cancer.gov/.

Section II:
Connecticut Cancer Plan 2009 – 2013

A. The Burden of Cancer in Connecticut

The Power of Unity.

Connecticut CANCER Partnership

The Power of Unity

Section II: Connecticut Cancer Plan 2009 – 2013

A. The Burden of Cancer in Connecticut

Connecticut is characterized by high social and economic status with one of the highest median family incomes in the country. Great variations in risk, incidence, and mortality of cancer exist among the state's sub-populations, and are impacted by age, race and ethnicity, educational attainment, income, and health care access. It is important to recognize such disparities while developing strategies for cancer control. This section examines cancer in Connecticut today, including demographic, economic, and risk factors of cancer incidence, morbidity, and mortality. Specific strategies are outlined to reach each of these high-risk populations and reduce Connecticut's cancer burden.

Demographic Characteristics of the Connecticut Population

Age: Age is a significant risk factor for cancer. Cancer is the uncontrolled growth of abnormal cells that have the potential to spread throughout the body. As people get older, their cells divide less frequently, limiting their capacity to repair damage.[1] In Connecticut, six out of ten new cancers diagnosed in 2001-2005 were in people 65 years of age and older.[2] With 13% of Connecticut residents over 65, representing the fastest growing segment of the state's population, the increased risk is alarming. The Connecticut State Data Center projects that in less than 20 years, more than 20% of Connecticut residents will be over 65. By 2030, Connecticut will have the seventh oldest population in the country.[3]

Race and Ethnicity:[4] Cancer incidence and mortality rates are higher for certain racial/ethnic population subgroups, and prognosis is poorer. As in the U.S., black males in Connecticut have the highest rate of new cancer cases overall, and black males and females have the highest cancer death rates in Connecticut. These disparities are significant when coupled with Connecticut's changing population. Changes in racial/ethnic composition from 2000 to 2007 show the large increases in Asian and Hispanic populations (Table 1). Whereas whites made up almost 75% of the U.S. population in 2000, the U.S. Census Bureau estimates that by 2050, Hispanics will account for almost 25% and black, Asians, and American Indians/Alaskan Natives will combine to total almost 25% of the population.[5]

Table 1: Population Changes by Race/Ethnicity, Connecticut, 2000-2007.

Population Group	2000		2007		Change 2000 to 2007	
	Number	% of Total	Number	% of Total	Number	%
Total population (all races and ages)	3,405,565		3,502,309		96,744	2.8
One race	3,330,717	97.8	3,431,503	98.0	100,786	3.0
White	2,780,355	81.6	2,786,401	79.6	6,046	0.2
Black /African American	309,843	9.1	328,401	9.4	18,558	6.0
American Indian and Alaska Native	9,639	0.3	8,211	0.2	-1,428	-14.8
Asian	82,313	2.4	118,216	3.4	35,903	43.6
Native Hawaiian /Other Pacific Islander	1,366	0.0	895	0.0	-471	-34.5
Some other race	147,201	4.3	189,379	5.4	42,178	28.7
Two or more races	74,848	2.2	70,806	2.0	-4,042	-5.4
Hispanic or Latino (of any race)	320,323	9.4	403,375	11.5	83,052	25.9
65 years and over	470,183	13.8	471,460	13.5	1277	0.3

Note: Race categories include both Hispanic and Non-Hispanic people.

Source: American Community Survey, U.S. Census Bureau

Education: People with poor English literacy often are at a disadvantage accessing medical information, advice, and services. In general, the education levels among Connecticut residents increased over the years, and are higher than the U.S. (Table 2). Once again, significant disparities exist among and between racial and ethnic groups. More than 85% of whites living in Connecticut complete high school compared with only 61% of blacks and 52% of Hispanics.[6] These trends are consistent with those seen in the nation overall. The proportion of Connecticut residents who speak languages other than English increased, and is higher than the national rate. However, the proportion of residents not speaking English well also increased from 2000-2006.

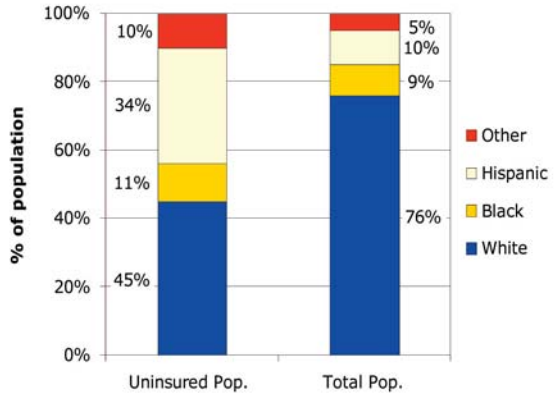
Table 2: Changes in Selected Social and Economic Characteristics Connecticut, 2000 and 2006 and United States, 2006.

	Connecticut		
Characteristic	**2000**	**2006**	**U.S. (2006)**
Less than 9th grade education (age 25+)	5.8%	4.8%	6.5%
High school graduates (age 25+)	84.0%	88.0%	84.1%
Bachelor's degree or higher	31.4%	33.7%	27.0%
Speak language other than English	18.3%	20.0%	19.7%
Do not speak English "very well"	7.4%	7.9%	8.7%
Per capita income	$28,766	$34,048	$25,267
Persons living below poverty level	7.6%	8.3%	13.3%

Source: American Community Survey, U.S. Census Bureau

Income and Poverty: Connecticut residents have the third highest median income in the nation, but the gap between the rich and poor is growing. The per capita income of Connecticut residents increased from $28,766 in 2000 to $34,048 in 2006, and is higher than the U.S. median of $25,267 (Table 2). However, the proportion of persons living below poverty level also increased from 2000 to 2006 although it was still much lower than the U.S. proportion. Moreover, there are large variations in income levels across racial/ethnic groups. The median household income for whites in Connecticut is $57,518 compared to $35,104 for blacks and $32,075 for Hispanics. The percentage of individuals living below poverty level is almost three times higher for black Connecticut residents (21%) and more than four times higher for Connecticut's Hispanics (34%) than for white Connecticut residents (8%).[7] The cost of living is Connecticut is higher than the national average so although an individual's or family's income may be above the national threshold for poverty, they might still be living in stressed financial conditions by Connecticut standards.

*Minorities are almost **four times** as likely to be uninsured than non-Hispanic whites.*



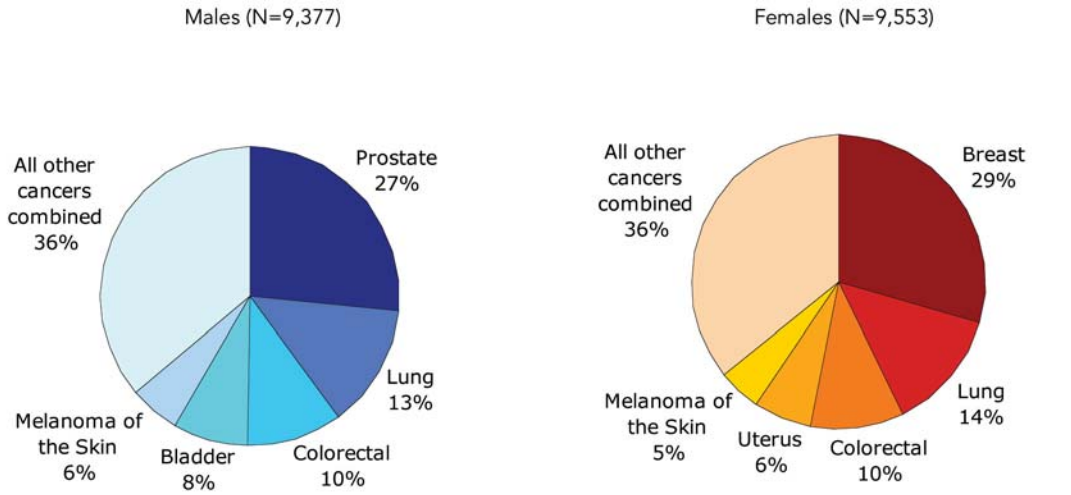
Source: Connecticut Office of Health Care Access Databook: Health Insurance Coverage In Connecticut. Results of the Office of Health Care Access 2006 Household Survey. Jan. 2007.

Health Insurance: Although Connecticut has one of the lowest percentages of people lacking health insurance in the nation, almost one person in ten is uninsured.[8] People without health insurance experience more difficulty accessing health services, and tend to have worse health. Socioeconomic differences translate into disadvantages in terms of access to health care. Two-thirds of uninsured Connecticut families have incomes less than 300% of the Federal Poverty Level in 2007 ($61,950 for a family of four).[9] "More than one-fourth of Hispanic adults in the U.S. (27%) lack a usual health care provider, and a similar proportion report obtaining no health care information from medical personnel in the past year."[10] By comparison, approximately 14% report no usual care provider.[11]

Cancer Incidence in Connecticut

The American Cancer Society estimated that over 19,000 people would be diagnosed with cancer in Connecticut in 2008.[12] Cancers were responsible for the deaths of 6,994 Connecticut residents in 2006, making it the second leading cause of death in the state.[13] When we examine these statistics more closely, we find areas of opportunity to reduce the burden of cancer significantly. For example, four types of cancer (lung, colorectal, female breast, and prostate) account for more than half of all new cancers and cancer-related deaths. Many of these cases are preventable through the promotion of healthy lifestyle choices, cancer screening, and access to high quality care. A primary challenge in this fight is the increasing populations of high-risk groups, including the elderly, lower-income residents, and minority residents.

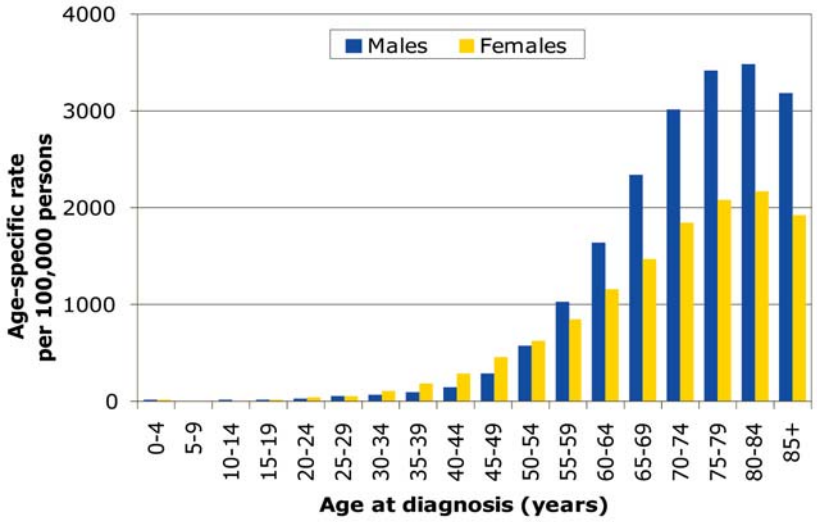
Figure 1. Cancer Incidence by Site and Gender, Connecticut, 2005.



Source: Connecticut Tumor Registry: *Note: Excludes non-melanoma skin cancers. Bladder cancer includes in situ tumors due to difficulties in distinguishing from invasive bladder tumors.*

Among Connecticut residents, 18,930 new cases of invasive cancer were diagnosed in 2005 (Figure 1). Female breast, prostate, lung, and colorectal cancers accounted for 52% of all cancers. For men, 9,377 newly diagnosed cases of cancer were reported in 2005. The majority of these cases were prostate (27%), lung (13%), and colorectal (10%) cancer. For women, there were 9,553 new cases of cancer diagnosed in 2005. The majority of cases were breast (29%), lung (14%), and colorectal (10%) cancer.

Figure 2. Cancer Incidence by Age and Gender for all Sites, Connecticut, 2001-05.



Cancer Incidence by Age and Gender: Cancer risk increases as people get older. In Connecticut, six in ten cancers diagnosed are in people aged 65 years and older. Incidence rates are higher in males than in females at ages 55 years and older (Figure 2).

Table 3. Age-Adjusted Incidence Rates by Race/Ethnicity and Gender, Selected Sites, Connecticut, 2001-2005.

Cancer Site	Non-Hispanic white		Non-Hispanic black		Hispanic (any race)	
	Age-adjusted rate per 100,000 (95% Confidence Limits)		Age-adjusted rate per 100,000 (95% Confidence Limits)		Age-adjusted rate per 100,000 (95% Confidence Limits)	
	Males	Females	Males	Females	Males	Females
All Cancers	591.2 (585.5 - 596.9)	464.3 (459.8 - 468.9)	634 (610.6 - 658.1)	397.8 (382.9 – 413.0)	531.5 (504.4 - 559.5)	416.5 (397.4 - 436.2)
Breast	-	141.4 (138.9 – 144.0)	-	116.8 (109.0 – 125.0)	-	118.8 (109.1 - 129.1)
Prostate	162.4 (159.5 - 165.4)	-	243.4 (229.2 - 258.3)	-	152.2 (137.8 - 167.5)	-
Lung and Bronchus	83.5 (81.4 - 85.6)	61 (59.4 - 62.6)	89.1 (80.1 - 98.8)	48.3 (43.1 - 53.9)	68.5 (58.4 - 79.6)	39 (32.9 - 45.8)
Colon and Rectum	65 (63.1 - 66.9)	47.1 (45.8 - 48.5)	64 (56.5 - 72.2)	53.7 (48.2 - 59.6)	67.6 (58.0 - 78.1)	48.6 (41.9 - 56)
Melanoma of the Skin	31.8 (30.5 - 33.2)	22.3 (21.3 - 23.4)	2.1 (1.0 - 3.8)	0.8 (0.3 - 1.8)	4.6 (2.4 - 7.8)	6 (3.9 - 8.7)
Cervix Uteri	-	5.7 (5.2 - 6.3)	-	11.1 (8.8 - 13.8)	-	12.5 (9.8 - 15.6)

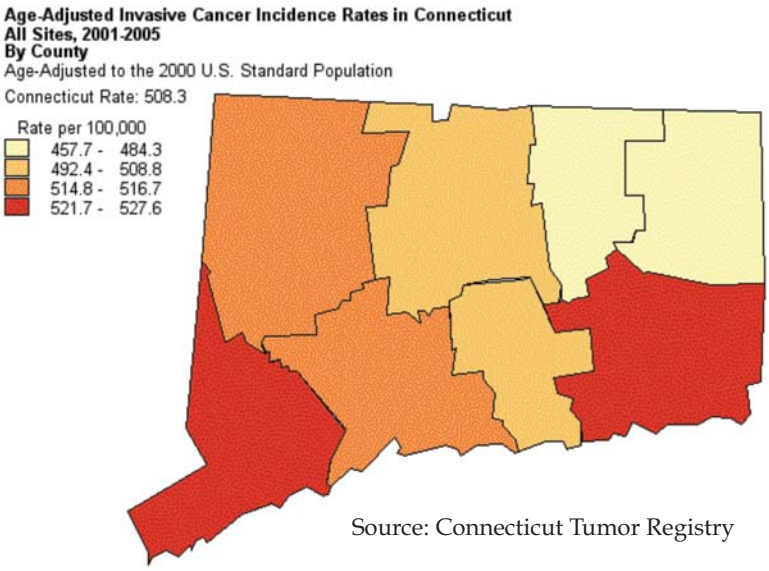
Source: Connecticut Tumor Registry

Note: Cancer registries collect data on race and Hispanic ethnicity from a number of sources including hospital records, pathology reports and death certificates. Hispanic ethnicity is not always well reported and registries supplement their data using nationally recognized identification methods based on patient names. Potential misclassification may arise particularly in women due to the frequent absence of maiden names in cancer registry databases.

Cancer Incidence by Race/Ethnicity and Gender: Cancer incidence varies greatly among different racial/ethnic groups. Black non-Hispanic males have the highest rate for all cancers, whereas in women the rates are highest in non-Hispanic whites (Table 3). Males have higher rates than females across the majority of race/ethnicity sub-populations. Of particular note are: 1) the high rates of prostate cancer in non-Hispanic black men; 2) the high rates of lung cancer in non-Hispanic white women; and 3) the high rates of cervical cancer in Hispanic women and non-Hispanic black women.

Cancer Incidence by Geography: Cancer incidence rates vary among the eight counties in Connecticut (Figure 3). This is related to a number of factors, including differing socioeconomic characteristics, lifestyle characteristics (e.g. smoking, diet, exercise, and hormonal factors), environmental exposures, racial and ethnic distributions, and access to health care of the populations in these counties. These disparities are significant factors in developing appropriate strategies for cancer care and prevention.

Figure 3. Age-Adjusted Incidence Rates in Connecticut, All Sites, 2001-2005.



Source: Connecticut Tumor Registry

Trends in Cancer Incidence: Cancer incidence rates in Connecticut have changed over time (Figure 4) due to a number of factors including improved early detection (screening) and treatment, and changes in tobacco use and other lifestyle factors.

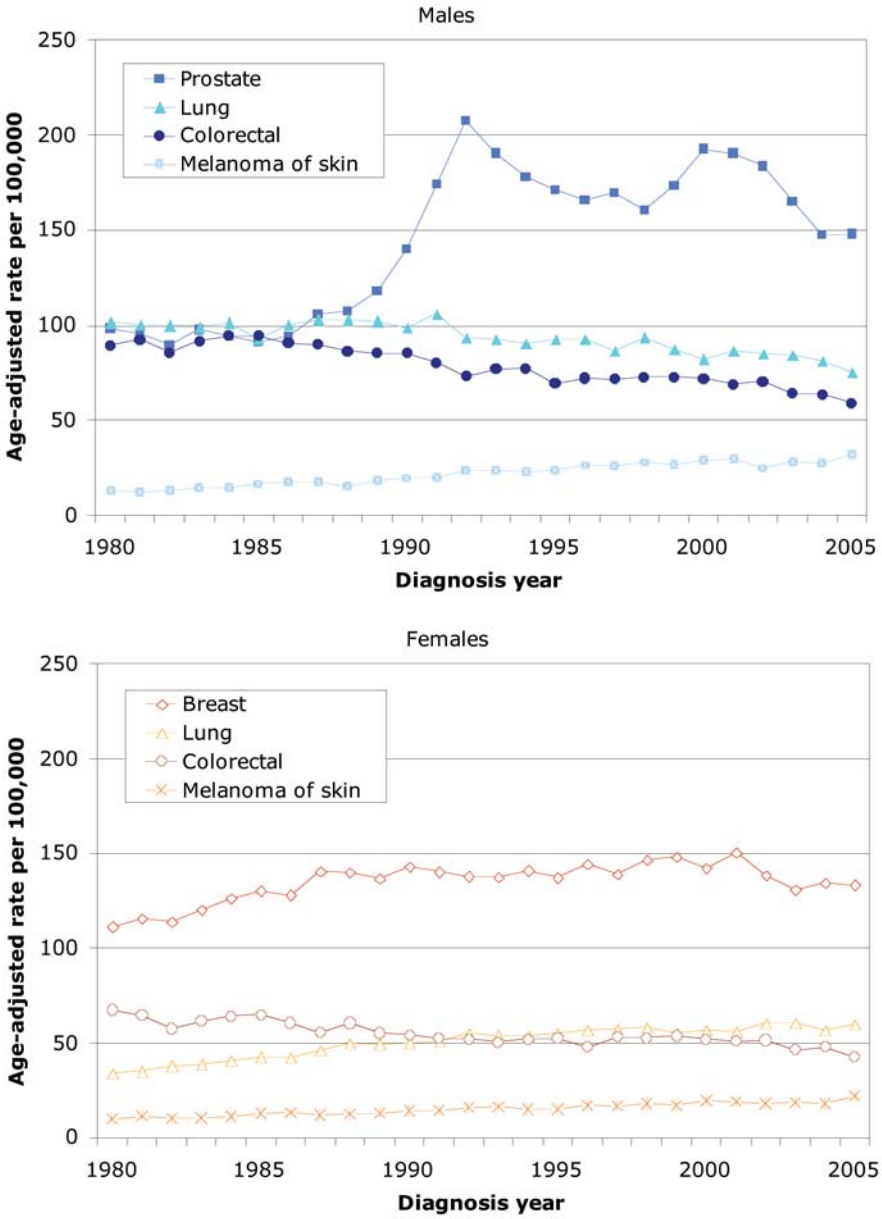
In men:

- Prostate cancer incidence rates increased dramatically in the early 1990s, following increased diagnoses due in part to introduction of the prostate-specific antigen (PSA) test, and have varied somewhat since.
- Lung cancer incidence rates have fallen, reflecting the reduction in the prevalence of smoking in men.
- Colorectal cancer incidence rates have fallen, due in part to the introduction of screening for colorectal cancer and removal of pre-cancerous polyps.
- Rates of new skin melanomas have increased, due in part, it is thought, to increased exposure to UV radiation (sunlight).

In women:

- Breast cancer incidence rates increased in the early 1980s, due in part to increased diagnoses with the introduction of mammography screening and changes in lifestyle factors (having children later in life, use of hormone replacement therapy). Rates have fallen slightly in recent years, due in part to the reduction in use of hormone replacement therapy.

Figure 4. Age-Adjusted Incidence Rates by Year, Selected Sites in Connecticut, 1980- 2005.



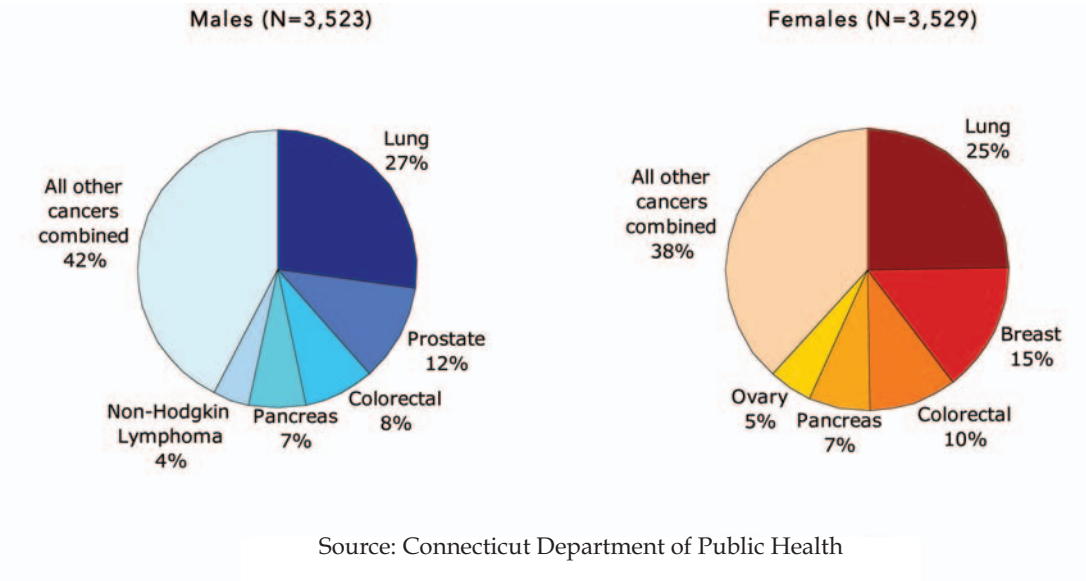
Source: Connecticut Tumor Registry

- Lung cancer incidence rates have increased, reflecting patterns of smoking prevalence in women.
- Colorectal cancer incidence rates have fallen, due in part to the introduction of screening for colorectal cancer, which involves the removal of pre-cancerous polyps.
- Rates of new skin melanomas have increased, most likely due in part to increased exposure to UV radiation (sunlight).

Cancer Mortality

Cancer is the second leading cause of death in Connecticut, and is the most common cause of death among adults between the ages of 45 and 84 years.[14] In 2006, there were 6,994 cancer deaths among Connecticut residents. The five (5) major cancer sites of lung, colon and rectum, female breast, pancreas, and prostate accounted for 55% of all cancer deaths. For men, 3,523 cancer deaths were reported in 2005. The majority of these deaths were lung (27%), prostate (12%), and colorectal (8%) cancer (Figure 5). For women, there were 3,529 cancer deaths in 2005. The majority of deaths were lung (25%), breast (15%), and colorectal (10%) cancer.

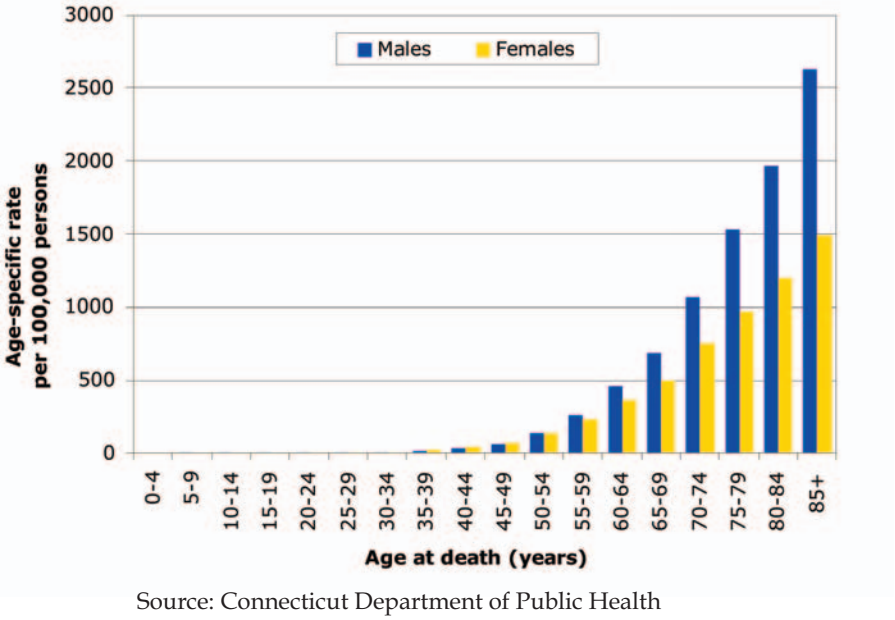
Figure 5. Cancer Mortality by Site and Gender, Connecticut, 2005.



Source: Connecticut Department of Public Health

Cancer Mortality by Age and Gender: Cancer mortality rates increase with age (Figure 6). Almost three in four cancer deaths occur in people aged 65 years or older. Males have higher rates of cancer death than females at ages 55 years and older.

Figure 6. Cancer Mortality by Age and Gender, All Sites, Connecticut, 2001-2005.



Source: Connecticut Department of Public Health

Cancer Mortality by Race/Ethnicity and Gender: Cancer mortality varies greatly between different racial/ethnic groups. The rate of death for all cancers is highest in non-Hispanic black men and women (Table 4). As with cancer incidence, males have higher mortality rates than females across all race/ethnicity sub-populations. Of particular note are: 1) the high rates of prostate cancer death in non-Hispanic black men; 2) the high rates of lung cancer death in non-Hispanic white women; and 3) the high rates of breast cancer death in non-Hispanic black women (despite having a lower incidence rate than non-Hispanic white women).

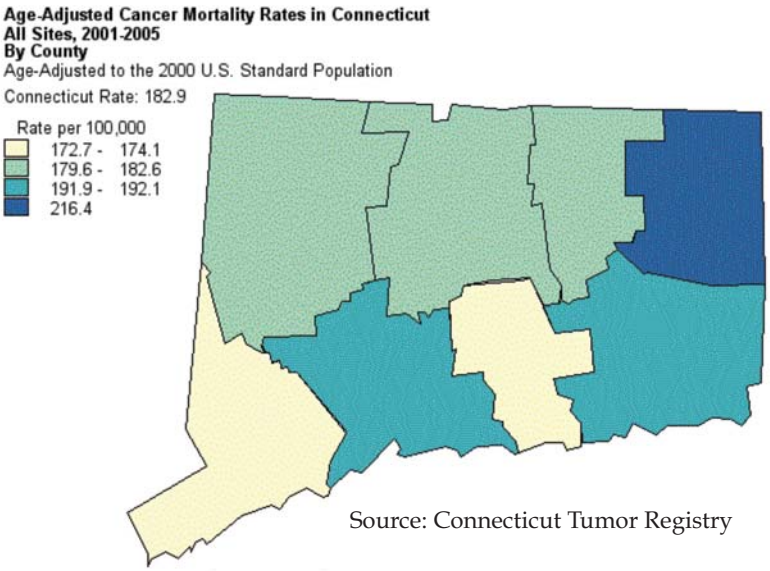
Table 4. Age-Adjusted Mortality Rates by Race/Ethnicity and Gender, Selected Sites, Connecticut, 2001-05.

Cancer Site	Non-Hispanic white		Non-Hispanic black		Hispanic (any race)	
	Age-adjusted rate per 100,000 (95% Confidence Limits)		Age-adjusted rate per 100,000 (95% Confidence Limits)		Age-adjusted rate per 100,000 (95% Confidence Limits)	
	Males	Females	Males	Females	Males	Females
All Cancers	226.3 (222.8 - 229.8)	161.0 (158.4 - 163.5)	265.2 (248.5 - 282.6)	168.3 (158.4 - 178.7)	146.7 (131.6 - 162.8)	89.2 (79.9 - 99.1)
Lung	62.9 (61.0 - 64.7)	42.0 (40.7 - 43.3)	68.6 (60.4 - 77.7)	33.8 (29.4 - 38.5)	37.6 (30.0 - 46.2)	15.8 (11.9 - 20.4)
Breast	-	25.4 (24.3 - 26.4)	-	28.1 (24.2 - 32.4)	-	13.7 (10.4 - 17.6)
Prostate	26.3 (25.1 - 27.5)	-	49.9 (42.2 - 58.5)	-	19.0 (13.0 - 26.3)	-
Colorectal	20.8 (19.8 - 21.9)	15.2 (14.5 – 16.0)	25.5 (20.4 - 31.3)	20.7 (17.3 - 24.5)	14.9 (10.3 - 20.5)	9.7 (6.8 - 13.3)
Pancreas	13.2 (12.4 - 14.1)	9.9 (9.3 - 10.5)	19.4 (15.3 - 24.2)	13.9 (11.1 - 17.2)	8.3 (4.9 - 12.7)	5.5 (3.3 - 8.5)

Source: Connecticut Department of Public Health
Note: Race and Hispanic ethnicity in mortality data are obtained from information on death certificates.

Cancer Mortality by Geography: Given the disparities shown above in cancer incidence by geography, it is not surprising that cancer mortality rates also vary among the eight counties in Connecticut (Figure 7). These disparities relate to a number of factors including differing socioeconomic characteristics, lifestyle characteristics (such as smoking, diet, exercise, and hormonal factors), environmental exposures, and access to health care of the populations in these counties.

Figure 7. Age-Adjusted Mortality Rates in Connecticut, All Sites, 2001-2005.



Source: Connecticut Tumor Registry

Trends in Cancer Mortality: Cancer mortality rates in Connecticut have changed over time (Figure 8), due to a number of factors including improved early detection (screening) and treatment, and changes in tobacco use and other lifestyle factors.

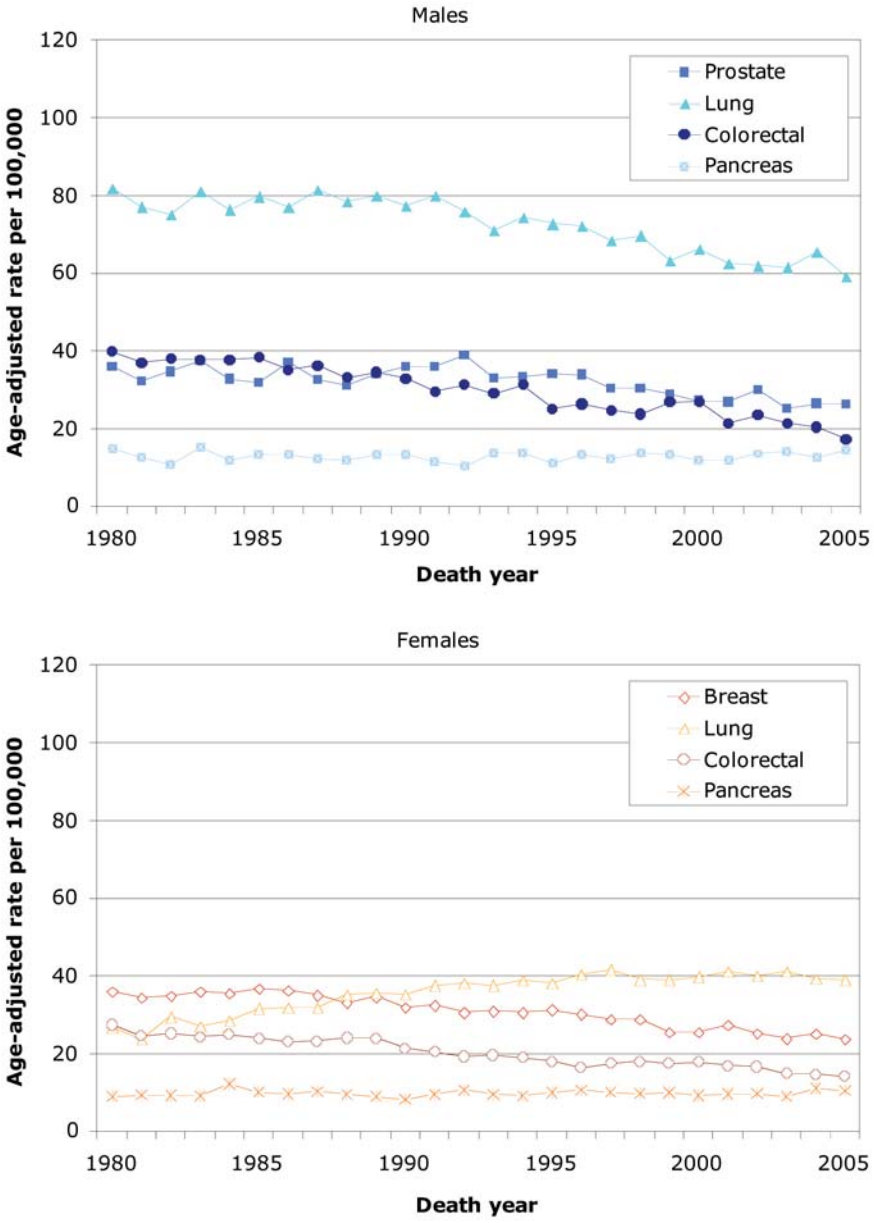
In men:

- Prostate cancer mortality rates have fallen.
- Lung cancer mortality rates have fallen, reflecting reduced smoking in men.
- Colorectal cancer mortality rates have fallen, due in part to the introduction of screening for colorectal cancer and involving removal of pre-cancerous polyps.
- Pancreatic cancer mortality rates have remained unchanged.

In women:

- Breast cancer mortality rates have fallen, due in part to early detection by mammography screening and improved treatment options.
- Lung cancer mortality rates have increased, reflecting patterns of smoking prevalence in women.
- Colorectal cancer mortality rates have fallen, due in part to the introduction of screening for colorectal cancer and removal of pre-cancerous polyps.
- Pancreatic cancer mortality rates have remained unchanged.

Figure 8. Age-Adjusted Mortality Rates by Year, Selected Sites, Connecticut, 1990-2005.



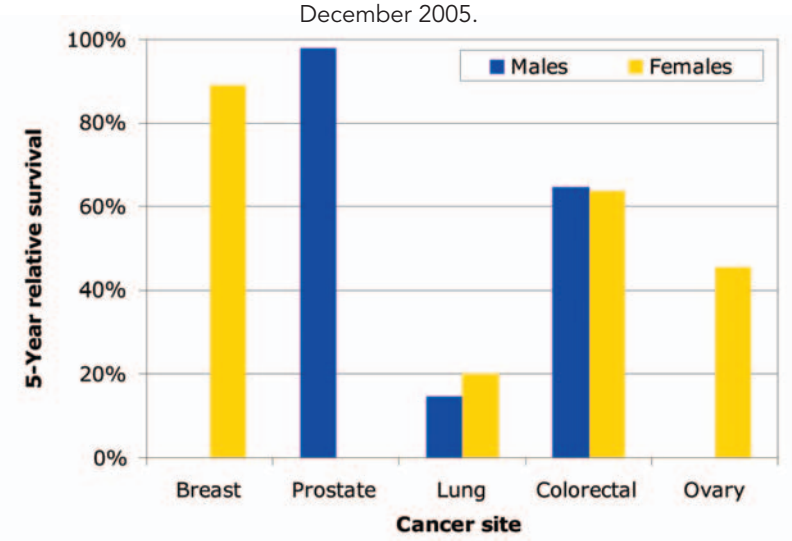
Source: Connecticut Department of Public Health

Cancer Survival

Cancer survival is measured in a number of different ways depending on the intended purpose of the measure. The *survival rate* is a measure of how long people live after diagnosis with cancer, while the *relative survival rate* adjusts for mortality in the general population.[15] In Connecticut, 5-year relative survival rates vary among cancer sites and between genders (Figure 9).

Figure 9. 5-Year Relative Survival Rates for Selected Cancer Sites, Connecticut

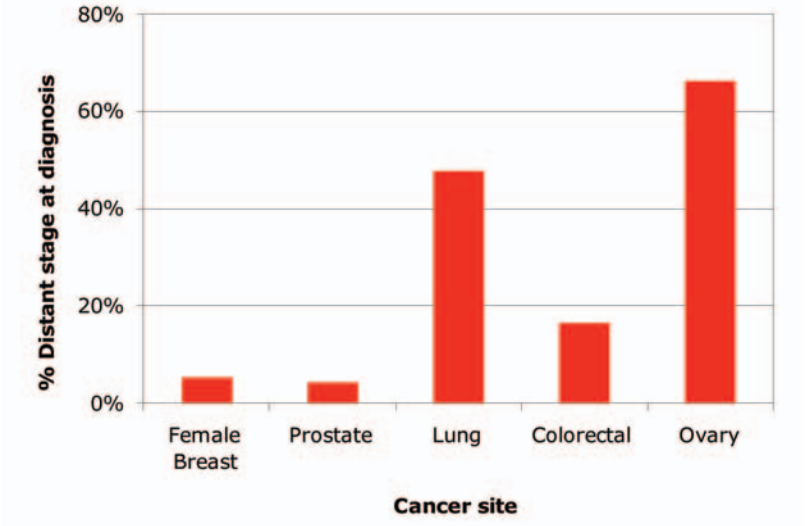
Cancers diagnosed 1996-2000 and followed-up to the end of December 2005.



Source: Cancer Tumor Registry

Staging describes the extent or severity of an individual's cancer. Knowing the stage of the disease helps the doctor plan a person's treatment and estimate prognosis.[16] The stage at diagnosis plays a significant role in cancer survival. Patients with cancers diagnosed at an earlier stage have better prognosis and survival. An examination across cancer sites reveals the significance of stage at diagnosis in survival rates.[17] The proportions of late (distant) stage diagnoses of several common cancers are shown in Figure 10.

Figure 10. Percent of Cancers Diagnosed at a Late (Distant) Stage, Selected Sites, Connecticut, 2001-2005.



Source: Cancer Tumor Registry

Lung cancer is often diagnosed at a late stage in part because no effective screening test is currently available. It has the poorest survival of the most common cancers and survival rates are poorer for men than for women. Ovarian cancer is the fifth leading cause of cancer death among all Connecticut women and the fourth leading cause of death among white women. Ovarian cancer is often diagnosed at a late stage, due in part to a lack of an effective screening test and a lack of knowledge about early signs by women and their physicians.

The Survivorship Committee's review of recent research found that the 5-year relative survival rate for all invasive cancers combined rose significantly from about 50% for those persons diagnosed in the mid-1970s to 65% for those diagnosed in 1995-2001.[18] In the U.S., the number of persons living with cancer rose from 3.0 million (1.5% of the population) in 1971 to 11.1 million (3.8% of the population) in 2005. It is estimated that 1,437,180 men and women (745,180 men and 692,000 women) will be diagnosed with and 565,650 men and women will die of cancer of all sites in 2008.[19] Improvements in survivorship are predominantly due to improvements in screening and treatment. The increase in the number of people living with cancer presents challenges to medical systems within Connecticut to provide appropriate care.

Cancer Screening

Screening means testing for a cancer before there are symptoms of the disease. Effective screening tests decrease cancer mortality and may reduce morbidity. Unfortunately, effective screening tests aren't available for all types of cancer. The United States Preventive Services Task Force (USPSTF) recommends for and against routine screening for a number of cancers. The American Cancer Society (ACS) also has recommendations for some specific cancer sites.[20,21] Connecticut has the second highest rate of new breast cancer cases in the nation[22], due in part to a high rate of mammography screening. Medicare data show an improvement in the use of screening mammography in all groups of women over 65 years of age.

Despite the existence of effective screening tests for cervical, breast, and colorectal cancers, their use in Connecticut is below the Healthy People 2010 objectives, especially in some ethnic and minority groups and among low-income persons. For example, 2006 Behavioral Risk Factor Surveillance System (BRFSS) data show that 82% of all Connecticut women over age 40 have had a mammogram in the past two years. While this screening rate is 82.5% for white women and 81.8% of black women, it falls to 76.4% for Hispanic women. Only 64.8% of women over 40 with incomes less than $15,000 had a mammogram in the past two years, compared to 85.6% of women with incomes over $50,000. Table 6 below details the disparities in colorectal cancer screenings by gender and by race. Once again, Hispanics are well behind their peers in accessing potentially life-saving medical care.

Effective screening tests are not available for some of the most common cancers that have high fatality rates, for example, lung, ovarian, and pancreatic cancers.

Table 6: Colorectal Cancer Screening Rates By Gender and By Race: 2006

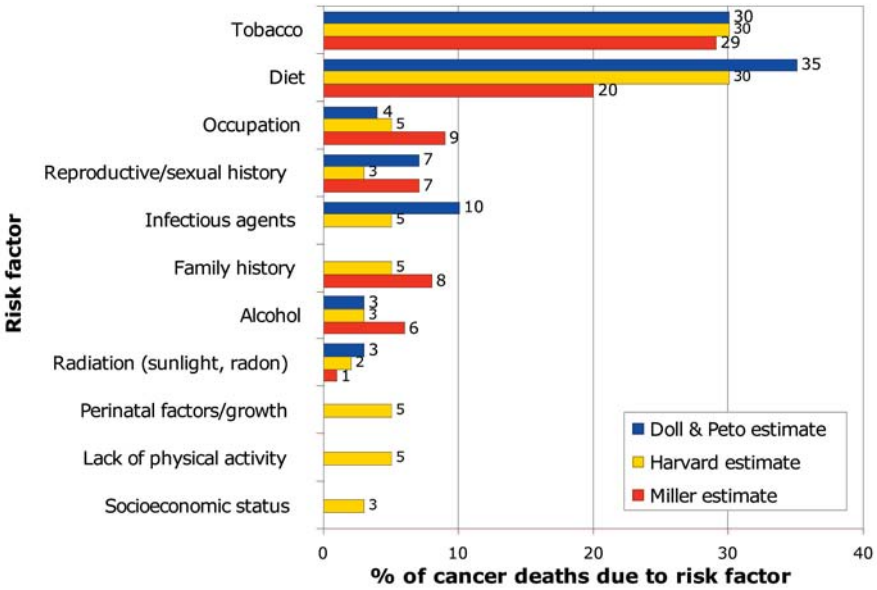
Colon/rectum Screening Test	Population Group	Percent of Population
Fecal occult blood test in last 2 years	**Total Population**	**26.9%**
By Gender	Males, 50+ years of age	25.5%
	Females, 50+ years of age	27.9%
By Race	White, 50+ years of age	27.7%
	Black, 50+ years of age	27.2%
	Hispanic, 50+ years of age	13.0%
Sigmoidoscopy or colonoscopy in last 2 years	**Total Population**	68.7%
By Gender	Males, 50+ years of age	70.5%
	Females, 50+ years of age	67.3%
By Race	White, 50+ years of age	70.0%
	Black, 50+ years of age	59.6%
	Hispanic, 50+ years of age	65%

Source: BRFSS 2006.

Risk Factors for Cancer

A risk factor is something that may increase a person's chance of developing or dying from a disease. Some risk factors are modifiable (e.g., smoking, diet, and physical activity), whereas others (e.g., age, family history, reproductive history) cannot be altered. Estimates indicate that at least half of all cancer cases could be avoided or delayed if knowledge about modifiable causes and risk factors were put into practice. The contributions of various risk factors to cancer deaths have been estimated by different methods, which result in somewhat different estimates (Figure 11). "Of the 7 million deaths from cancer worldwide in 2001, an estimated 2.43 million (35%) were attributable to nine potentially modifiable risk factors. Smoking, alcohol use, and low fruit and vegetable intake were the leading risk factors for death from cancer worldwide and in low-and-middle-income countries. In high-income countries, smoking, alcohol use, and overweight and obesity were the most important causes of cancer. Sexual transmission of human papilloma virus is a leading risk factor for cervical cancer in women in low-and-middle-income countries." The authors of this study note "Our estimate of the proportion of deaths attributable worldwide to the nine risk factors we studied is about half of what Doll and Peto estimated by comparing age-standardized incidence rates from the USA from 1978 with the lowest reliably observed incidence rates in other populations. Because Doll and Peto used comparison of incidence rates, their estimates include differences in exposure to all known and unknown risk factors. Furthermore, their estimates applied to the USA only. Therefore the estimates of Doll and Peto are not directly comparable to ours."[23] These estimates are helpful for identifying where cancer prevention activities should be focused. Many of these risk factors are common to other chronic diseases such as heart disease and stroke, diabetes, and asthma.

Figure 11: Estimated Percentages of Cancer Deaths due to Various Risk Factors.



Source: From data summarized by Brownson, Reif, Alavanja and Bal, 1998[24]

The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based national survey gathering information about a wide range of behaviors among adults that affect people's health. Similarly, the Youth Risk Behavior Surveillance System (YRBSS) monitors priority health risk behaviors among youth and young adults (students in grades 9-12). Table 7 summarizes risk factors relevant to cancer from surveys of Connecticut residents.

Diet and Obesity Risk Factors: In a comprehensive report by the World Cancer Research Fund and the American Institute for Cancer Research, eight recommendations were made regarding food, nutrition, and physical activity to reduce cancer; these include increasing physical activity, reducing obesity and eating at least five fruits and vegetables a day.[25]

The Prevention Committee reviewed the latest scientific research on the links between diet, obesity, and cancer. Current patterns of overweight and obesity in the United States could account for an estimated 14% of all deaths from cancer in men and 20% of those in women.[26] Overweight is defined as having a body mass index (BMI) of 25 to 29.9, and obesity as a BMI of 30 or greater.[27] In both men and women, high BMI is significantly associated with higher rates of death due to cancer of the esophagus, colon and rectum, liver, gallbladder, pancreas, and kidney, non-Hodgkin's lymphoma, and multiple myeloma.[28] According to the CDC, significant trends of increasing risk with higher BMI values have been observed for death from cancers of the stomach and prostate in men and for death from cancers of the breast, uterus, cervix, and ovary in women. Obesity has been associated with increased risks of breast, colon, endometrial, and kidney cancers.[29] Several studies published by the World Health Organization have shown that low intake of fruits and vegetables may be associated with an increased risk of colon, breast, lung, and gastrointestinal cancers, among others.[30] Disparities exist in the prevalence of obesity in Connecticut, which may contribute to disparities in cancer incidence rates.

Table 7: Prevalence of Cancer-Related Behavioral Risk Factors in Connecticut Residents.

Risk Factor	Percentage of Persons at Risk	
	Adults	Students
Current cigarette smoking	15.4%	21.1%
Ate fruits or vegetables five or more times a day	28.5%	21.5%
Body weight:		
Overweight	37.5%	13.3%
Obese	21.7%	12.3%
Heavy alcohol intake	5.9%	26.2%
Physical activity:		
Met recommended levels of physical activity	N/A	45.1%
No physical activity	19.7%	N/A
Moderate or vigorous physical activity	52.4%	N/A
Sexual behavior:		
Had first sexual intercourse before age 13	N/A	5.9%
Had sexual intercourse with 4 or more people in lifetime	N/A	12.4%
Used condom during intercourse	N/A	62.7%

Sources: BRFSS (2007) and YRBSS (2007). Note: Definitions of risk factors between BRFSS and YRBSS may vary.

When surveyed on eating fruits and vegetables **only 33% of Connecticut women reported healthy eating and 23% of men**, (2007 BRFSS)

The Prevention Committee's research review found that although 49% of women and 38% of men rated maintaining a healthy weight as 'very likely' to reduce one's risk of cancer, the proportion of overweight or obese adults in Connecticut has increased during the past decade.[31] The text box highlights 2007 BRFSS results on overweight and obesity.[32]

While some of these differences can be attributed to cultural food preferences, they are also affected by access to affordable healthy alternatives. Supermarkets with extensive, affordable healthy choices are often scarce or absent. Farmers markets are frequently less accessible to individuals who lack personal transportation and must rely on public transportation access. The Prevention Committee examined the latest data on trends in fruit and vegetable consumption among men and women. From 1994 -2005, the CDC reported that fruit and vegetable consumption among Americans remained relatively stable.[33] In 2007 only 28.5% of adults and 21.5% of students reported eating the recommended five or more fruits and vegetables per day. A small decline among men was related to declines in consumed non-fried potatoes and "all other" vegetables in men and among women to a decline in eating non-fried potatoes. Both sexes also had a decrease in consumption of fruit juices.

Overweight or Obese Adults in Connecticut, 2007 BRFSS

Obesity by Gender

- 70.5% of men surveyed reported being overweight or obese
- 48.4% of women surveyed reported being overweight or obese

Obesity by Race

- 58.9% White
- 64.5% Black
- 64.6% Hispanic

Risks of Physical Inactivity: The Prevention Committee also reviewed the latest research on the links between physical activity levels and risks for cancer. Several studies show that physical activity is strongly associated with a reduced risk of both colon and breast cancers; the relationship to other cancers is still being investigated.[34] Many of the populations with poor cancer outcomes (i.e. lower income, non-English speaking, and minority residents) have similar disparities in access to physical activity opportunities. For example, physical activity decreased with less education and income.[35] Even among youth, blacks and Hispanics were less likely to engage in moderate or vigorous physical activity than whites.[36] Work schedules and environments may impede the ability to exercise.

The Prevention Committee's data review found that although 52% of women and 39% of men rated getting regular physical activity as 'very likely' to reduce one's risk of cancer, 68% of Connecticut adults reported mostly sitting or standing while at work and 21.6% of women and 17.6% of men reported they engage in no leisure time physical activity or exercise.[37] Compared to white non-Hispanics, black non-Hispanics were 72% more likely and Hispanics were twice as likely to report having no leisure time physical activity (17.7%, 30.5%, and 34.5%, respectively).[38]

Many residents, especially in urban settings, lack access to areas that are safe for biking and walking. Among state initiatives, the Connecticut Department of Environmental Protection has developed the "No Child Left Inside" program to reconnect families with the outdoors for their own health and well-being and for the future of the environment. Promoting increased use of Connecticut's State Parks and Forests, it also includes structured activities for families.[39]

Initiated in 2006, wellness programs in Connecticut K-12 schools also provide the guidelines and policies to improve school nutrition and physical activity policies in the school setting. They encourage reinstatement of recess and lunch hour opportunities for children to get outside and play, as well as regular school time physical activity and activities that extend beyond the school day. In collaboration with Coordinated School Health Programs, these school-based initiatives have the potential to have a significant impact on the current and future health and fitness of Connecticut children.

Tobacco Risks: According to the 2004 Surgeon General Report, tobacco use is the leading preventable cause of disease and premature death in the United States, and there is convincing evidence for a direct causal relationship between tobacco use and numerous cancers, including lung, oral, laryngeal, pancreatic, cervical, stomach, and kidney.[40] The Prevention Committee made a significant effort to review the latest research on tobacco-related cancer risks. In their review of the existing research, the Committee found studies attributing approximately 30% of all cancer deaths to active tobacco use.[41] Although smoking rates have declined in recent years in Connecticut, an estimated 413,700 adults (15.4%) still smoke every day or some days, and blacks are more likely than whites or Hispanics to smoke.[42]

Even brief exposures to secondhand smoke can be harmful - there is no risk-free level of secondhand smoke exposure. ***-The Surgeon General***

Why? Secondhand smoke contains more than 250 chemicals known to be toxic or carcinogenic (cancer-causing), including formaldehyde, benzene, vinyl chloride, arsenic, ammonia, and hydrogen cyanide. Children who are exposed to secondhand smoke are inhaling many of the same cancer-causing substances and poisons as smokers.

In addition to adult smokers, there are about 37,000 middle and high school students who currently smoke in Connecticut.[43] This number does not include high school dropouts, who are known to have higher smoking rates compared to students their ages who remain in school. About 75% of middle and high school smokers think they could quit smoking now if they wanted to. Fifty per cent of male and 60% of female smokers tried to quit in the past 12 months, but only 25% of males and 36% of females were able to remain off cigarettes for at least 30 days during their last quit attempt. Frequent smokers (i.e., smoking cigarettes on 20 or more days) were more likely to have initiated smoking at ≤ 12 years of age than non-frequent smokers: 46.0% vs. 21.5%. Smoking rates among those with mental illness and/or substance use disorders are about 41% on average.[44] People living with mental illness and/or substance use disorders consume approximately 45% of cigarettes smoked in USA.[45]

In the United States, Cigarette smoking causes an estimated 85% to 90% of lung cancer deaths.

CDC surveillance data show that nearly 90% of lung cancer deaths among men and 75-80% of deaths among women are related to cigarette smoking. In 2007, 15.4% of Connecticut adults and 21.1% high school students reported they are current smokers (Table 7).

Sexual Behavior Risk Factors: According to the CDC, human papilloma virus (HPV) is the most common sexually transmitted disease (STD) in the US. Infection with certain types of human papillomavirus (HPV) increases the risk of developing cervical cancer. HPV is also a strong risk factor for oropharyngeal cancer, and may play a role in cancers of the anus, vulva, vagina, and penis. Approximately 20 million Americans are currently infected with HPV, and another 6.2 million people become newly infected each year although for many the infection is transient. At least 50% of sexually active men and women acquire genital HPV infection at some point in their lives.[46] A recent study indicated the prevalence of HPV in women aged 14-59 to be one in four with the highest rates in 20-24 year olds.[47] A vaccine is now available that is effective in protecting against the two types of HPV that cause the majority of cervical cancers.

Sexual Behavior and Cancer Risk in US Youth

- 12% of high school students have 4 or more partners
- 6% had intercourse before age 13
- 2/3 of sexually active students use condoms

Source: YRBSS 2007

Child Vulnerability to Environmental Carcinogens

- Dirt and dust exposure
- Children breathe more air and consumer more food and water per unit than adults
- 179 new pediatric diagnoses per million annually in Northeast[53]

Risks of Alcohol Consumption: Both the World Health Organization and the International Agency for Research on Cancer (IARC) classify alcoholic beverages as a Group 1 carcinogen, the highest classification available that signifies sufficient evidence of causing cancer in humans. The risk increases with the amount of alcohol that a person drinks. Alcohol consumption increases the chance of developing cancers of the mouth, throat, larynx, esophagus, liver, colon, rectum, and (female) breast.[48] For most of these cancers, the risk is higher for a drinker who uses tobacco. In 2007, 5.9% of Connecticut adults reported having greater than 2 drinks per day for males and 1 drink per day for females,[49] and 26.2% high school students reported drinking five or more drinks on one occasion in 2007.[50]

Environmental Exposure Risk Factors: The Prevention Committee also reviewed research on the impact of environmental factors on cancer incidence. The Committee's search into recent publications confirmed that the issues surrounding environmental exposures as risk factors for cancer are complex. Several chemicals found in the environment, (e.g. arsenic, asbestos, benzene, chromium, and radon) have been identified as human carcinogens by agencies such as the World Health Organization's International Agency for Research on Cancer, the U.S. National Toxicology Program, the National Cancer Institute and the U.S. Environmental Protection Agency. As of 2007, 415 known or suspected carcinogens have been identified by the International Agency for Research on Cancer (IARC).[51] Endocrine disrupting compounds (EDCs) that may disrupt biological processes are commonly found in the environment.[52] EDCs are considered to be potential human carcinogens.

Children are especially vulnerable to environmental carcinogens. From birth, a child passes through critical stages of neurological and physiological development. The Northeast has the highest incidence rate of pediatric cancers in the U.S. (Interestingly, the Northeast also has the lowest death rate from pediatric cancers.)[53]

The Prevention Committee also reviewed studies of the risks of exposures to carcinogens in the workplace. Workplace exposures to a wide range of carcinogens can present a health hazard to workers over time. It has been estimated that 2-5% of all cancer deaths can be attributed to occupation-related exposures at work.[54] Occupational risks for cancer are often difficult to define because linking an individual cancer to a specific occupational exposure is complicated by the fact that cancer typically takes decades to develop, is a multi-factorial disease and workplace conditions are often unclear and are always changing. However, environmental and occupational exposures have been linked to nearly thirty types of cancer.[55]

Skin Cancer:
2 Primary Forms

1. *Non-melanoma* – basal or squamous skin cells rarely result in death
2. *Melanoma* – can be fatal, it is the 5th most common cancer from cells that produce skin color

Exposure to ultraviolet (UV) radiation from sunlight and from artificial tanning lamps can damage DNA, the critical genetic material in cells. Damage of DNA in skin cells can sometimes lead to skin cancer. There are two primary forms of skin cancer: non-melanoma and melanoma. Melanoma is the fifth most commonly diagnosed cancer in Connecticut men and women (Figure 1) and incidence rates have been increasing in both men and women (Figure 4). Skin cancer incidence rates vary between different racial/ethnic groups (Table 3), due predominately to differences in skin pigmentation.

Reasons for Health care Disparities

- Access
- Language
- Culture
- Socioeconomic status
- others

Disparities in Cancer Burden

Disparities in cancer incidence, stage at diagnosis, mortality, screening rates, and behavioral risk factors exist in Connecticut and warrant continued attention and funding. The burden of cancer is often greatest for low-income people from racial and ethnic minority groups. People with lower socioeconomic status are less likely to receive cancer screenings, and their survival rates are lower, even when they have health care coverage. Uncovered costs for transportation, childcare, and medical supplies can drain resources and cut treatment time short. Compared to more advantaged patients, lower income residents also receive less adequate treatment and have more difficulty obtaining palliative and supportive care.[56]

Reasons behind disparities in cancer incidence and death rates are complex and may be related to lifestyle practices such as smoking and diet, as well as to socioeconomic factors such as income, education, health insurance status, and level of access to primary and preventive care, and biological factors. According to the American Cancer Society, "Inherited differences associated with race are thought to make a minor contribution to the disparate burden among African-Americans in the United States."[57] Race and ethnicity alone are not barriers to care or causes of disparities. On an individual level, however, race or ethnicity might affect access in terms of language, cultural attitudes and perceptions, poverty, or inadequate training and sensitivity among health care providers to understand and meet the needs of specific population groups. The inability to speak and read English well is associated with lower use of health care services, and less compliance with recommended procedures. Problems result not only from the use of English by providers, but also from variation in educational opportunities for providers (in culturally competent communication) and for patients (in both general literacy and health literacy).

Disparities in cancer incidence, stage at diagnosis, mortality, screening rates, and behavioral risk factors exist in Connecticut and warrant continued attention and funding. Over the past ten years there have been important steps taken towards addressing and eliminating cancer disparities. The National Cancer Institute (NCI) established the Center to Reduce Cancer Health Disparities in 2001 and has dramatically increased funding on the topic. To specifically address disparities in accessing medical information, NCI has established a mirror web site in Spanish (http://www.cancer.gov/espanol). The CDC has also recently expanded its web site for cancer information in Spanish (http://www.cdc.gov/spanish/cancer/) to provide Spanish readers information about cancer prevention, treatment, survivorship, and health disparities. In addition, the Agency for Healthcare Research and Quality has teamed up with AARP to provide checklists in both English and Spanish to help men and women over the age of 50 decide which preventive medical tests, including cancer screening tests, they need and when they need to get them. The checklists are available at http://www.ahrq.gov/consumer and http://www.ahrq.gov/consumer/espanoiz.htm.

Economic Burden

In 2005, cancer was the seventh leading cause of hospitalizations in Connecticut costing more than $579 million counting only direct medical treatment.[58] Direct medical treatment is only one of the financial burdens cancer imposes on patients, their families, and society. Other costs include lost productivity due to premature illness and death. According to the *Journal of Clinical Oncology*, "The economic burden attributed to… cancer is considerable and indicates the need for increased prevention, earlier diagnosis, and new therapies that may assist in reducing direct and indirect costs."[59] The health data above show that the risks of cancer are even greater for some of Connecticut's fastest growing populations (minorities and the elderly).

A Medical Expenditure Panel Survey (a program of the Agency for Healthcare Research and Quality) of the most costly medical conditions between 2000 and 2004 found the mean health care expenditures per person were highest for cancer ($4,577 and $5,727 respectively). Overall spending for cancer-related health care rose dramatically from $42.4 billion in 2000 to $62.2 billion in 2004, and that *"the largest portion of expenditures paid by private insurance was for the treatment of cancer."*[60] According to the American Cancer Society, 20% of patients with health insurance use all or most of their savings trying to combat their diagnoses, and patients with little or no health insurance "have higher medical costs, poorer outcomes, and higher rates of death."[61] ACS contends these poorer outcomes are due in part to lack of access to necessary follow up care often conducted at physicians' offices. While many physicians accept new patients, many refuse to take on patients with Medicaid, Medicare or other non-private insurance coverage. The issue of health insurance coverage becomes even more critical with these findings.

At the same time, reliable access to affordable, high quality health care is also in jeopardy. "Between 1995 and 2004, the overall costs of treating cancer increased by 75 percent."[62] For lung cancer alone, Connecticut inpatient hospital charges in 2005 were $60.8 million or more than $23,000 per hospitalization. Yet due to the concurrent rise of overall health care costs, the proportion of cancer treatment costs to total health care costs has remained stable. In 2004, cancer accounted for 6.9% of medical expenditures.[63] Connecticut cancer-related hospitalization costs in 2004 accounted for 8.4% of all hospitalization costs, indicating a higher cost of care.[64]

The data above also show significant areas of opportunity to reduce cancer risk among Connecticut's most vulnerable populations by addressing risk behaviors. For example, in 2004 in Connecticut, the adult smoking-attributable medical expenditures totaled $1.63 billion or 9% of total expenditures for health care, with an additional lost productivity attributable cost of $1.02 billion.[65] Strong tobacco control programs have been proven to improve health and yield significant cost savings. One recent study found that California's $1.8 billion investment over 15 years (1989-2004) yielded a savings of $86 billion in health care expenditures alone (productivity savings were not factored into this 50-fold rate of return).[66] The Prevention Section discusses strategies to reduce tobacco-related cancer incidence. Decreasing the financial burden of cancer is a significant issue in the Partnership's efforts to improve outcomes. The Partnership's approach to reduce the health and economic burdens of cancer in Connecticut are discussed.

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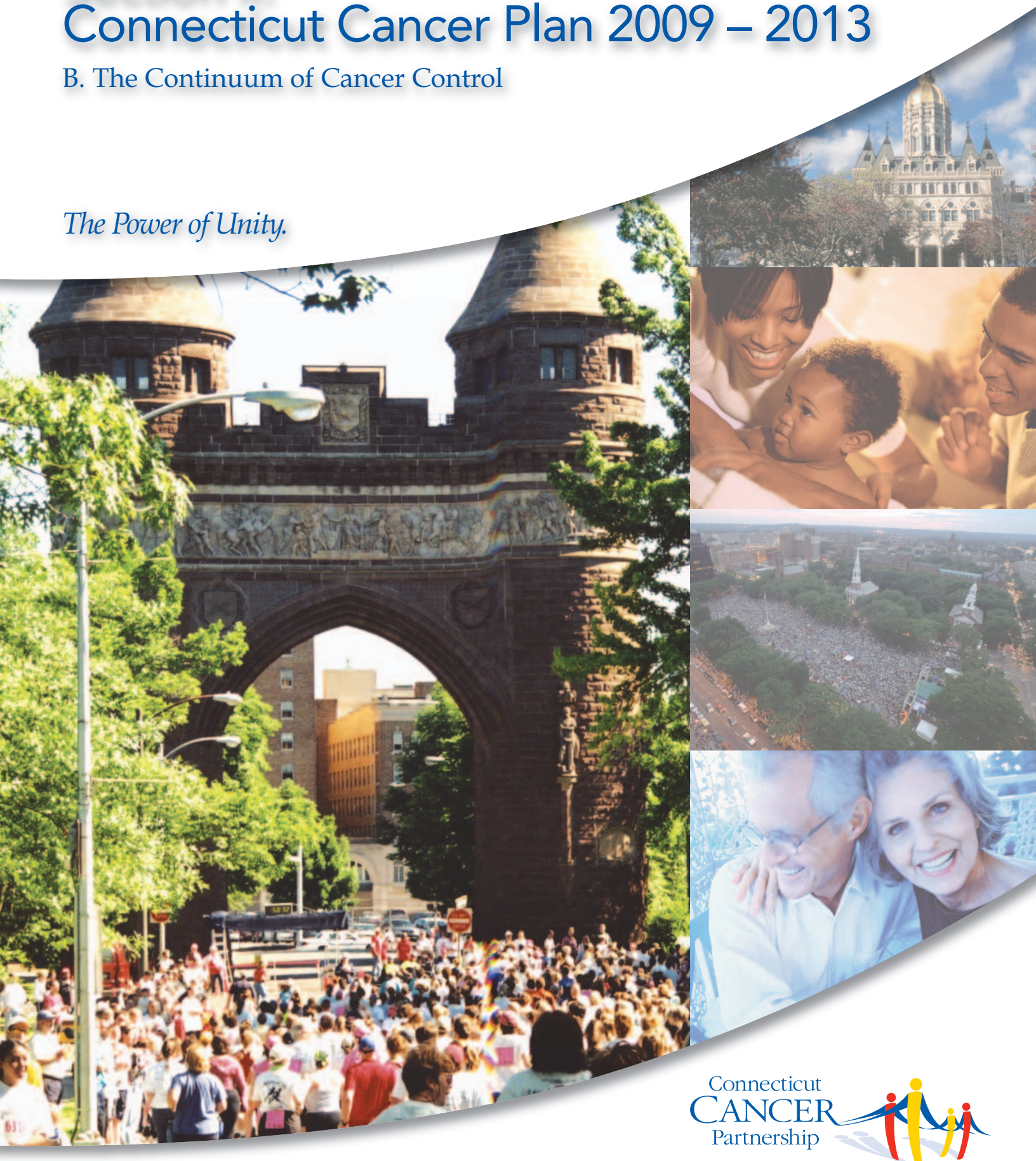
Section II:
Connecticut Cancer Plan 2009 – 2013

B. The Continuum of Cancer Control

The Power of Unity.



Connecticut CANCER Partnership

The Power of Unity

B. The Continuum of Cancer Control

The planning, organization, and oversight work accomplished by the Connecticut Cancer Partnership is done within a committee structure organized around the continuum of disease progression, moving from preventing and identifying the disease through to the end of life. Other committees that bridge the continuum concentrate on providing the skills, action, and support required to make improvements across the spectrum of cancer.

Section A of Part II described the medical and financial burden of cancer on individuals and demographic groups. Section B provides specific objectives identified by the Partnership committees and members to address the burden across the cancer spectrum.

- ***Prevention*** focuses on categories of risk factors which are modifiable: life style and carcinogen exposures. It identifies risk reduction behaviors that can significantly reduce the odds of a cancer diagnosis.
- ***Early detection,*** often referred to as secondary prevention, identifies screening tests that can improve outcomes by detecting cancers in early stages when treatment is more likely to be successful.
- ***Quality Treatment*** addresses the need for high quality, evidence-based cancer care available to all residents in the state, and the need for education of patients and providers regarding treatment options. It emphasizes the need for ongoing research for continued scientific progress and encourages participation in clinical trials.
- ***Survivorship*** concentrates on the needs of survivors focusing on goals to ensure that cancer survivors and their caregivers experience a high quality of life with appropriate information and ongoing care planning.
- ***Palliative and hospice care*** emphasizes the need to optimize the quality of life and reduce suffering with an interdisciplinary holistic approach. This section addresses the importance of ensuring that all Connecticut residents have access to services to meet these needs throughout the cancer journey.

Woven throughout each section is the underlying theme of access and disparities in incidence of disease and outcomes. The Connecticut Cancer Partnership is committed to eliminating disparities across all demographic groups and to identifying and removing barriers, while promoting access to appropriate services.

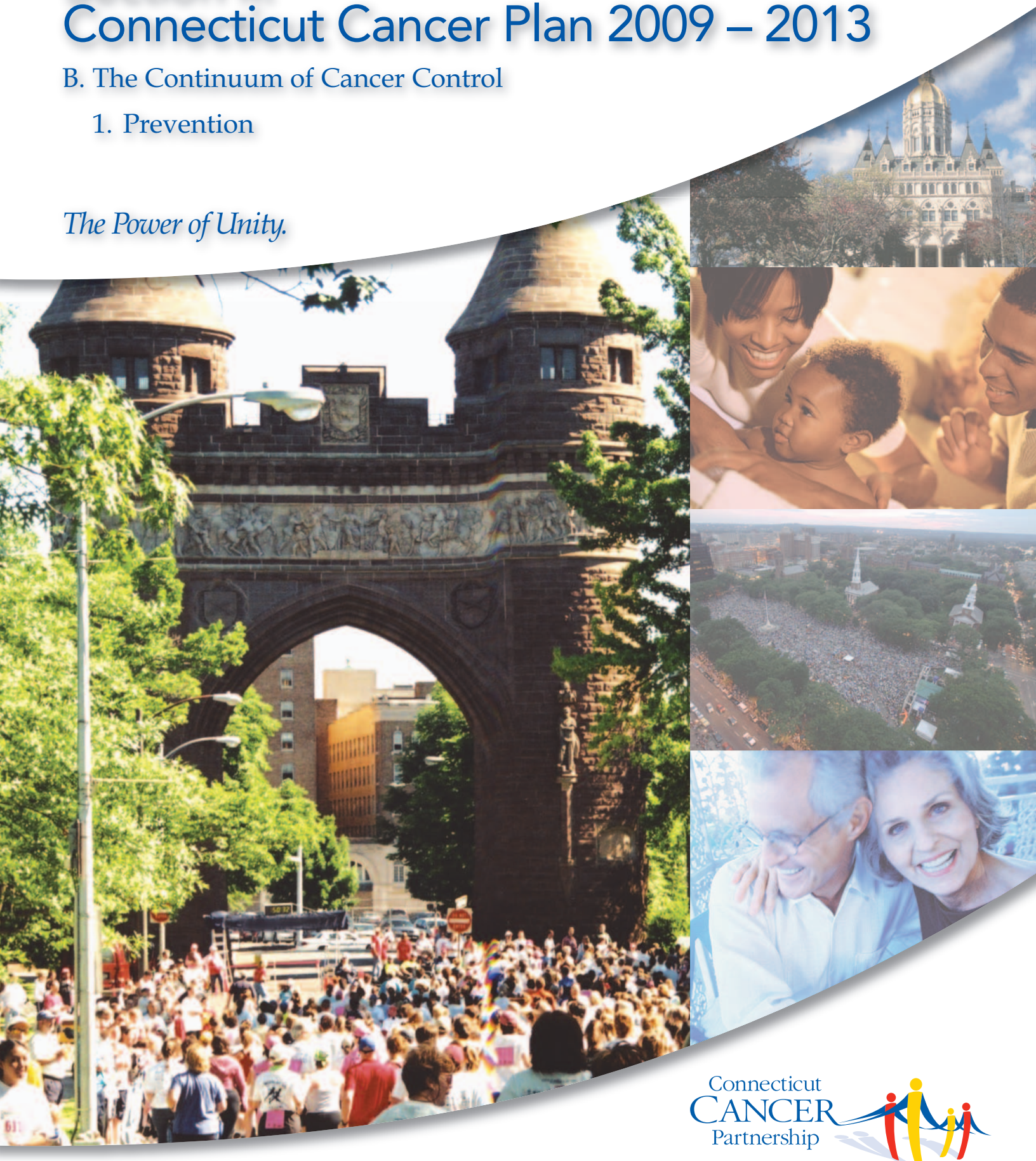
Section C addresses cross-cutting activities and support for the elements outlined across the continuum.

Section II:
Connecticut Cancer Plan 2009 – 2013

B. The Continuum of Cancer Control

1. Prevention

The Power of Unity.



Connecticut CANCER Partnership

The Power of Unity

Prevention Committee

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Bonnie Baldwin, BA	American Cancer Society
Polly Barey, RN, MSN*	Coalition for a Safe & Healthy CT
Cathy Bartell	Oncology Network of Connecticut
Annamarie Beaulieu MPH*	CT Public Health Association
Ande Bloom MS, RD	Eastern Highlands Health District
Carol E. Bower*	CT Department of Public Health
Brenda Cartmel, PhD*	Yale University School of Medicine
Charlie Chatterton, Ph.D	Eastern Connecticut State University
Stephanye R. Clarke	Ledge Light Health District
Kathy Cobb, MS, RD	KC & Friends
Denis Coble, Ed.D.	UConn-Storrs
Renee Coleman-Mitchell, MPH	CT Department of Public Health
Beth Comerford, MS	Yale-Griffin Prevention Research Center
Robin Cox*	CT Department of Mental Health & Addiction Services
Deanna D'Amore, BA	CT Association of Directors of Health
Ellen Dorneles, PhD	Hartford Hospital
Teresa Dotson, RD	CT Dietetic Association
Linda Drake, M.S.*	UConn Department of Nutritional Sciences
Bonnie Edmondson	CT State Department of Education
Richard B. Everson MD, MPH	UConn Health Center
Roberta Friedman	Yale - Rudd Center
Ingrid Gillespie*	Lower Fairfield County Regional Action Council
Jennifer Granger, MPH	Community Health Center Assn of CT
Anne Hulick, RN, MS, JD	CT Nurses' Association
Jennifer Ickovics, PhD	Community Alliance for Research & Engagement
Jennifer Kertanis, MPH*	CT Association of Directors of Health
Margaret LaCroix	American Lung Assn of New England
Connie Malave Branyan, MPH	American Cancer Society
Jerold R. Mande, Past Co-chair*	Yale Cancer Center
Katie Martin, PhD	Ctr for Public Health & Health Policy
Marlene McGann	Meriden & Wallingford Substance Abuse Council
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Carol Meredith*	DMHAS
Sharon Mierzwa, MPH, RD*	CT Association of Directors of Health
Tim Morse	UConn Health Center
Scott Newgass	CT State Department of Education
Hilary Norcia, MPH	Central CT Health District
Ryan Obedzinski	East of the River Action for Substance Abuse
Edith Pestano	CT Department of Environmental Protection
William Quinn, MPH	New Haven Health Department
Nancy Rodriguez	UConn Department of Nutritional Sciences
Alycia Santilli, MSW	Community Alliance for Research & Engagement
Kathyrn Shuttleworth	CT Dept of Public Health
Kari Sullivan	CT State Department of Education
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Barbara Walsh*	CT Department of Public Health
Jillian Wood	American Academy of Pediatricians
Susan Yurasevecz, MS	CT Dept Public Health
Kristen Zarfos, MD, FACS	ST Francis Hospital

** Actively involved in writing of prevention section of 2009-2013 Plan*

1. Prevention

The Prevention Committee monitors critical areas of burden, high-risk populations, and existing gaps in programming. Acknowledging that there are ongoing challenges such as the funding and sustainability of smoking cessation efforts throughout the state, the Prevention Committee has considered new approaches to reaching its identified goal for the state.

Goal: *Reduce cancer risk, incidence, and mortality through the development and adoption of policies and interventions that support healthy lifestyles and risk reduction practices among children and adults.*

According to the Institute of Medicine (IOM) report on cancer prevention, an estimated 100,000 of the 1,437,180 new cases of cancer and 60,000 of the 565,650 total deaths nationally could be prevented each year by 2015 if more Americans used the cancer prevention and early detection knowledge and recommendations currently available.[1] It is important to consider the effects of behavior on cancer incidence and prevention.

Tobacco use, poor nutrition, physical inactivity, and obesity are all linked with cancer. Effective behavioral interventions for these risk factors involve individual and family activities, engaging community organizations in behavior-changing initiatives, and systematic policy and societal changes that address factors which influence behavior such as self-efficacy, problem-solving skills, and social support.[2] These components are considered important regardless of the specific behavioral target. Clinical guidelines exist for smoking cessation, dietary compliance, increasing physical activity, and obesity reduction. There is also growing evidence that system-wide interventions are effective in addressing many of the social determinants of health.[3] The Prevention Committee focused on the following risk factors that can be affected by behavioral interventions and population-based environmental and policy changes.

Why this goal is important…

Fifty to 75% of cancer cases in the United States are preventable.[(1)]

1. **Tobacco Use.** Smoking accounts for at least 30% of all cancer deaths and 87% of lung cancer deaths. More than 5,400 Connecticut residents die each year from smoking related illnesses, about 2,000 of which are cancers.[(2)]
2. **Nutrition, Physical Activity and Obesity.** About one-third of cancer deaths are due to nutrition and physical activity factors, including excess weight. Higher consumption of fruits and vegetables and regular physical activity may lower risk of developing some cancers.
3. **Environmental Cancer Risk.** Exposure to ultra-violet radiation from the sun and artificial tanning devices is associated with an increase in melanoma and other skin cancers. Exposure to carcinogenic agents in workplace, community, and other settings is thought to cause about 6% of cancer deaths.
4. **Excessive Alcohol Use.** Excessive consumption of alcoholic drinks is associated with oral, laryngeal, pharyngeal, liver, and esophageal, cancers and possibly other cancers.
5. **Unprotected Sex and Infectious Agents.** Human papillomavirus (HPV), which is transmitted by sexual contact, is an established cause of cervical cancer in women. Up to 10% of cancers are associated with infectious diseases.[(3)]

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1. Tobacco Use

Tobacco use is the leading preventable cause of cancer in the United States and Connecticut (see Section II-A, *The Burden of Cancer in Connecticut*). The efficacy of evidence-based statewide tobacco control programs that are comprehensive, sustained, and accountable has been well documented.[4] Reducing the use of tobacco can significantly reduce the burden of cancer. The Institute of Medicine (IOM) and the President's Cancer Panel recommended that each state should fund tobacco control activities at the level suggested by the Centers for Disease Control and Prevention (CDC).[5, 6] The 2007 CDC recommendation for Connecticut is an annual investment of $43.9 million to implement known successful tobacco control strategies. The Committee's review also identified the existence of effective cessation treatments for tobacco users with severe mental illness and/or substance abuse disorders, one among many population groups experiencing significant tobacco-related disparities.[7] The primary obstacle to implementing cessation services in Connecticut is their cost.

Proven strategies for comprehensive tobacco control programs include smoking bans, tobacco use prevention programs, high cigarette taxes, and smoking cessation programs. Connecticut's tobacco tax and smoking bans are among this nation's most effective and meet CDC guidelines, but Connecticut lacks the comprehensive tobacco cessation services, community efforts, and media campaigns that are known to dramatically reduce the prevalence of tobacco use. Legislation adopted in 2008 authorized the Tobacco and Health Trust Fund Board of Trustees to recommend spending $6.8 million from the Trust Fund for tobacco control specific interventions. With this money and additional funds from the CDC, Connecticut will spend $8.3 million in 2009.

The CDC's *Guide to Community Preventive Services (Community Guide)* identifies the following interventions for which the evidence is strongest for strategies to reduce and prevent tobacco use and exposure to environmental tobacco smoke:[8]

- Increasing the unit price of tobacco
- Smoking bans and restrictions
- Media education campaigns combined with other interventions
- Community mobilization when combined with additional interventions
- Comprehensive, multi-component cessation programs that include health care provider reminder systems, telephone support for clients, and reducing client out- of -pocket costs for effective cessation therapies.

With its high cigarette tax and tough smoking ban, Connecticut has taken significant steps on the path to reducing tobacco-related cancers as well as other tobacco-related illnesses. Connecticut is one of eight states in the U.S. that does not provide Medicaid insurance coverage for smoking cessation.[9] Although legislation was passed in 2002 to authorize funding for this purpose, no funding has been allocated. Smoking cessation and public prevention and education programs are crucial for achieving further significant reductions in tobacco use, preventing thousands of future tobacco-related deaths, and saving millions in health care dollars spent for treating tobacco-related diseases. Only through a sustained, coordinated, and strategic approach can this be achieved.

The Synar Amendment enacted by Congress in 1992 is aimed at decreasing access to tobacco products among individuals under the age of 18. This also requires states to enforce laws prohibiting sales to this population with a goal of reducing sales to minors to 20% or less. Since 1999 Connecticut's Targeted Reduction Schedule with Retailer Violation Rate has been less than 20% each year. In 2008 it was 13.7%. Connecticut's success in reducing underage youth access to tobacco was due to state tobacco law enforcement by the Department of Revenue Services (DRS) and the Department of Mental Health and Addiction Services (DMHAS); the enactment of legislation such as Connecticut General Statute Section 12-295a and 53-344 that provides meaningful, yet rational penalties for non-compliance; and the work of investigators and youth agents in the Tobacco Prevention and Enforcement Program (TPEP) who conduct inspections and merchant education along side local police and resident troopers.[10]

The Connecticut Tobacco Use Prevention and Control Plan, produced in 2002 by the Connecticut's Department of Public Health (DPH) and DMHAS with funding from the state legislature, is a plan that is comprehensive, sustainable, evidence based, and data-driven.[11] Its recommendations closely follow the CDC's *Best Practices for Comprehensive Tobacco Control Programs* which calls for comprehensive state and local action directed at social and environmental changes. *The Connecticut Tobacco Use Prevention and Control Plan* includes examples of effective programs, such as regional coalitions, and addresses population groups for whom smoking rates are the highest. The Connecticut Cancer Partnership supports the goals and objectives of this Plan and advocates for funding its implementation. The Prevention Committee and the DPH Tobacco Use Prevention and Control Program have established a joint Tobacco Workgroup to update the state tobacco control plan.

2. Nutrition, Physical Activity, and Obesity

Poor nutrition, inadequate physical activity, and obesity are interacting risk factors for several types of cancer. Indeed, obesity is the nation's fastest rising public health problem (see Section II-A, the Burden of Cancer in Connecticut). The tobacco control experience has demonstrated that policy and environmental change are essential components of a comprehensive approach to reduce health risk and change behavior. To stop the obesity epidemic, similar purposeful public policy and community-based interventions are needed to reinforce individual efforts to achieve and maintain a healthy body weight and adequate levels of physical activity throughout life.[12]

Connecticut residents do not consume recommended amounts of fruits and vegetables (Section IIA). Interventions that go beyond increasing individual awareness of the value of consuming fruits and vegetables and education programs regarding healthy eating are needed. Such interventions will require interpersonal, community-level, and environmental approaches. Successful, evidence-based interventions that increase access to fruits and vegetables are population and policy based. They include programs at day-care centers, schools, universities, and worksites; local farmers' markets; vouchers for seniors; and the Special Supplemental Nutrition Program for Women, Infants, and Children. Farm-to-school programs, school gardening projects, and other community initiatives may also offer opportunities for encouraging healthy eating behavior change. (See Burden section) The national *Fruits and Veggies – More Matters*™ initiative is replacing the *5 A Day* approach for increasing public awareness about consuming these foods and builds upon the body of science that indicates that increased daily consumption of fruits and vegetables may help prevent many chronic diseases.[13]

Poor nutrition, physical inactivity, and obesity are risk factors that are associated not only with cancer but with multiple chronic diseases, including diabetes and heart disease. In addition to being multi-causal, this triad of risk factors is closely integrated and should be dealt with collectively rather than as stand alone, categorical issues. American Cancer Society (ACS) has developed nutrition and physical activity guidelines for cancer prevention that are updated every five years.[14] In their common agenda white paper the American Cancer Society, American Diabetes Association, and American Heart Association note "The collaboration between ACS, ADA, and AHA offers several unique new opportunities to advance a collective cause for prevention and early detection of cancer, heart disease and diabetes. First and foremost, this collaboration holds the potential to achieve greater progress in health promotion and disease prevention."[15] Committee members agree that a comprehensive integrated approach to chronic disease prevention makes the most sense. This approach can reinforce community capacity and support infrastructure to reach high-risk population groups (low income, low literacy, isolated). It also maximizes the most effective use of limited resources. The Prevention Committee also endorses *"Healthy Eating and Active Living: Connecticut's Plan for Health Promotion"*, released by the Department of Public Health in 2005, as a model for addressing nutrition, physical activity, and obesity challenges.[16]

3. Environmental Cancer Risk

a. Exposure to Carcinogens

Workplace exposures and pollutants account for more than 30,000 cancer deaths in the U.S. each year, and disproportionately affect low-income workers and communities.[17] Preventive measures in these settings are largely based on identifying and then reducing exposures to the highest risk substances, and addressing the causes of disparities.

All occupational exposures to cancer causing agents can be prevented. Protection from carcinogenic substances in the workplace involves a combination of aggressive, scientifically-based regulations, worker education, and surveillance. The Environmental and Occupational Health Assessment program at DPH evaluates and quantifies health risks from exposures to environmental contaminants, and attempts to decrease these risks by working with the Connecticut Department of Environmental Protection (DEP) and informing the public and health care professionals about environmental hazards. DPH is developing a comprehensive system, the Environmental Public Health Tracking Program, for linking and reporting environmental, human exposure, and health effects data. The DPH Environmental Epidemiology group works to add questions about perception of environment-related risks to the BRFSS.

Global efforts to harmonize the classification and labeling of chemical substances the Global Health and Safety Initiative (GHS) provide a unique opportunity for occupational cancer prevention training. University of Connecticut Health Center staff has developed a risk assessment training program that builds on the GHS initiative. The training program uses "control banding", a chemical risk management model to help employers and workers identify hazardous materials in their workplaces. The model is particularly attractive because it uses chemical classification systems like the GHS to help workplaces readily identify chemical carcinogens. Workplaces in Connecticut have used the model to identify carcinogens that should be replaced with safer substitutes.

b. Exposure to Ultraviolet Radiation

Skin cancer is the most common type of cancer in the United States, developing in approximately 1,000,000 Americans each year. Most of these are basal and squamous cell cancers that are highly curable if detected early. Melanoma is the most serious type of skin cancer. Melanoma is one of the few cancers for which the incidence rate is increasing, most strikingly in men, and one of the most preventable (see Section II-A). Exposure to ultraviolet (UV) rays (both A and B) appears to be the most important environmental risk factor for the development of skin cancer. An individual's risk of skin cancer is related to the lifetime exposure to UV rays from the sun and artificial sources, such as tanning booths/beds and sunlamps. Although the risk for skin cancer is greatest for fair-skinned people, skin cancer can develop in anyone regardless of skin pigmentation.

Sun-protective behaviors can lead to substantial reductions in sun exposure, thereby reducing the risk of developing both melanoma and non-melanoma skin cancer. CDC recommendations to reduce exposure to sunlight include minimizing exposure to the sun during peak hours (10 am to 4 pm), wearing skin-protective clothing, applying broad spectrum sunscreen, and avoiding use of sunlamps or tanning beds.[18] This is especially true for children, as childhood sunburns can increase the risk of skin cancer later in life.

Adults and adolescents do not regularly protect themselves from UV exposures when outside on sunny days. Overall, there has been rather limited progress in improving sun protection practices and reducing sunburns among U.S. youth despite widespread sun protection campaigns. CDC reported that sunburn prevalence among U.S. adults increased from 1999-2004. Men were more likely to have had sunburn than women (37% vs. 30%). Among the 33.7% of adults who reported sunburn in the preceding year, 20.7% reported four or more sunburns (all survey years combined). In Connecticut the prevalence of sunburn increased from 33.3% in 1999 to 43.1% in 2004 which was statistically significant.[19]

The percentage of high school students who wore sunscreen with an SPF of 15 or higher most of the time or always has actually decreased significantly from 13.3% in 1999 to 10.3% in 2007.[20] The use of indoor tanning lamps or booths is prevalent among young adults and women who perceive a tanned appearance as healthy and attractive. Twenty-nine states, including Connecticut, have passed legislation limiting a minor's access to indoor tanning facilities.

4. Excessive Alcohol Use

Alcohol consumption directly and indirectly accounts for three to six percent of all cancer deaths.[21] A causal association has been established between alcohol consumption and cancers of the oral cavity, pharynx, larynx, esophagus, liver, colon, rectum, and female breast, and an association is suspected for pancreatic and lung cancers.[22] The combination of smoking and drinking alcohol multiplies the risk.[23]

The American Cancer Society's recommendation (for those who drink) is to limit intake to two drinks per day for men and one per day for women. In 2007, 5.9% of Connecticut adults reported having greater than two drinks per day for males and one drink per day for females[24], and 26.2% high school students reported drinking five or more drinks on one occasion in 2007.[25] Sixty-three percent of 12th graders and 35% of 9th graders in Connecticut reported at least one drink of alcohol in the last 30 days. Binge drinking was reported by 42% of 12th graders and 13% of 9th graders.[26]

There are twenty-eight Connecticut communities using evidence-based strategies to address underage drinking under the Center for Substance Abuse Prevention (CSAP) Strategic Prevention Framework (SPF) Grant Program administered by the Connecticut (DMHAS).[27] The SPF strategies implemented in Connecticut communities include:

- Communities Mobilizing for Change on Alcohol – a community-organizing program designed to reduce youth (13 to 20 years of age) access to alcohol by changing community policies and practices
- Strengthening Families Programs – a family skills training program designed to increase resilience and reduce risk factors for behavioral, emotional, academic, and social problems in children 3-16 years old
- Media campaigns focused on social access, family norms, peer norms, and brain development
- Increased law enforcement of underage drinking laws
- Merchant education
- Compliance checks

5. Unprotected Sex and Infectious Agents

Infectious agents are any organisms, such as viruses, parasites, or bacteria that are capable of invading body tissues, multiplying, and causing disease. Several infectious agents cause or are strongly linked to cancer, including human papilloma virus (cervical cancer), hepatitis B and C viruses (liver cancer), Epstein-Barr virus (Burkitt's lymphoma), human herpes viruses (Kaposi sarcoma), human T-lymphotropic virus (leukemia, lymphoma), and the bacterium *Heliobacter pylori* (gastric cancer). In the United States, United Kingdom, and other developed countries, about 10% of cancers are linked to infections, whereas in the developing world, 25% of cancers are infection-related.[28, 29] Methods of transmission include: sexual intercourse, intravenous drug use, mother-to-fetus transmission, mother-to-child during breastfeeding, and transfusion of cellular blood products. Infectious agents and the cancers attributed to each worldwide are summarized in Table 1.

Vaccine development is the ultimate goal to prevent cancers related to these viruses, with the ideal vaccine conferring immunity by preventing infection from ever occurring. To date, no vaccine is available to prevent hepatitis C. However, an effective vaccine for hepatitis B has been available since 1982. The rate of new hepatitis B infections has declined by approximately 80% since 1991, when a national elimination strategy was implemented in the United States. The decline has been greatest among children born since 1991, when universal vaccination of infants was first recommended.

Table 1. Infectious Agents Cases Per Year Worldwide

Infection	Cancer	% Virus positive	No. of cases	Vaccine developed
HPVs	Cervical cancer	100%	490,000	✓
HBV	Liver cancer	50%	340,000	✓
HCV	Liver cancer	23%	195,000	×
EBV	Burkitt lymphoma Hodgkin's lymphoma Post-transplant lymphoma Nasopharyngeal carcinoma	>90% >50% >80% 100%	113,000	×
KSHV	Kaposi sarcoma Primary effusion lymphoma Multicentric Castleman's	100% 100% >50%	66,000	×
HTLV-1	Adult T cell leukemia	100%	3,000	×
H. pylori	Gastric carcinoma MALT lymphoma	30% 100%	603,000	×

Source: The global burden of infection-related cancer in 2002. Parkin DM. The global health burden of infection-associated cancers in the year 2002. Intl J Cancer, 2006: 847-853.

Since January 1994, Connecticut has required that all infants receive immunization against hepatitis B within the first six months of life. In August 2000, hepatitis B vaccination also became a requirement as a catch up intervention, for all students entering the seventh grade who were born before 1994. With this strategy, hepatitis B-associated cancer will become a rarity for our younger generations.

The human papilloma virus (HPV) group includes over 100 viruses, of which more than thirty types can be passed from one person to another through sexual contact.[30] Studies have shown that infection with certain types of HPV are a major cause of cervical cancer, may be a strong risk factor for oropharyngeal cancer, and may play a role in cancers of the anus, vulva, vagina, and penis. Sexual behaviors that increase the risk of sexually transmitted infections associate with cancer include sexual intercourse without the use of a condom and multiple sex partners. In many cases, risk for contracting HPV and other STDs can be reduced by decreasing potential exposure to the virus by limiting the number of lifetime sexual partners, avoiding partners who have had multiple sexual partners, and, in the case of cervical cancer, by women delaying their first sexual experience.[31] The DPH makes this vaccine available at no cost, through the federally funded Vaccines for Children (VFC) Program, for VFC-eligible girls (~30% of 10-18 year olds).[32] According to Lynn Sosa, M.D., Medical Epidemiologist, at the Connecticut DPH, the physician surveys (pediatric, family practice, and obstetrics/gynecology) showed that the cost to stock the vaccine and inadequate reimbursement from insurance, including Medicaid for women age 19-26, are barriers to widespread use. There has been considerable discussion regarding whether or not this vaccine should be mandated for pre-teens. The state epidemiologist and the state Vaccine Advisory Committee have recommended against mandatory vaccination, but support voluntary vaccination as recommended by the national Advisory Committee on Immunization Practices (ACIP). (See Research in Section I-B).

Note to Reader: Measures, Targets, and Data sources may be found in the Appendix C. with a preface in the Implementation section: Tracking Plan Progress. All targets in the objectives are 2013 targets. Additional 2010 targets may be listed in the tracking document.

Prevention Objectives

OBJECTIVE 1. Decrease tobacco use.

- *Decrease tobacco use among adults (18 and over) from 15.4% to 12%.*
- *Decrease tobacco use among youth (grades 9-12) from 21.1% to 10%.*
- *Decrease tobacco use among of low socioeconomic status adult smokers by 25%.*

Strategies:

1. Develop statewide smoking cessation programs that meet Public Health Service and National Action Plan guidelines, including counseling, pharmacotherapy, and a related counter marketing campaign. These interventions should be available at no charge for Medicaid and uninsured participants, and individuals with mental health issues.
2. Increase the state tobacco tax (including smokeless tobacco) and remove exemptions to Connecticut's smoking ban in public places.
3. Initiate a statewide tobacco education media campaign like those shown to be effective in New York City and states such as Florida, Maine, Massachusetts, and California.
4. Update and implement the *Connecticut Tobacco Use Prevention and Control Plan* through a combination of federal, state, and local funding at the levels recommended by CDC Guidelines.
5. Collaborate across agencies to institute a statewide Coordinated School Health approach within school districts.
6. Create and expand coordinated partnerships to carry out tobacco prevention and control strategies.
7. Create indicators to determine socio-economic status (SES) of BRFSS respondents in order to measure tobacco use prevalence among lower SES smokers. Extrapolate to Connecticut data if appropriate possible.

OBJECTIVE 2. Increase the percentage of people who consume at least five fruits and vegetables per day.

- *Increase the percentage of adults who consume at least five fruits and vegetables per day from 28.5% to 75%.*
- *Increase the percentage of youth (high school and middle school) from 21.5% to 75% who consume at least five fruits and vegetables per day.*

Strategies:

1. Adopt as the standard for state and local agencies, institutions, and communities, DPH's Healthy Eating and Active Living (HEAL) Plan to address nutrition, physical activity, and obesity.
2. Develop and implement policies for food, nutrition, and physical activity education and interventions, including:
   - menu and menu board nutrition labeling in chain restaurants
   - community-based intervention research
   - nutrition education curriculum to support healthier eating in schools and for at risk populations
   - tax breaks for physical activity projects such as building walking trails
   - environmental interventions to reduce barriers and provide safe, affordable and accessible opportunities for physical activity for adults and children in communities, schools and workplaces

3. Incorporate the physical activity, nutrition, and tobacco-use approach (PANT) in Coordinated School Health Programs and existing school district Wellness Programs.
4. Coordinate efforts to increase consumption of fruits and vegetables to meet current Dietary Guidelines for Americans.
5. Use existing, evidence-based models to promote healthy food choices at the community and individual levels.
6. Identify barriers and motivating factors for healthy nutrition for all age and ethnic groups, and implement interventions to address them.
7. Identify and implement proven community-based physical activity interventions to promote more active lifestyles among children and adults.
8. Develop new indicators that provide better measurement outcomes for nutrition, physical activity, obesity, and either add them to current BRFSS activities or conduct surveys to address them.

OBJECTIVE 3. Increase the percentage of people who engage in regular physical activity, (follow ACS activity guidelines), from 52.4% for adults and 45.1% of youth to 70%.

Strategies:

1. Adopt as the standard for state and local agencies, institutions, and communities, DPH's Healthy Eating and Active Living (HEAL) Plan to address physical activity.
2. Develop and implement policies for physical activity education interventions, including:
   - community-based intervention research
   - tax breaks for physical activity projects such as building walking trails
   - environmental interventions to reduce barriers and provide safe, affordable and accessible opportunities for physical activity for adults and children in communities, schools and workplaces
3. Incorporate the physical activity, nutrition, and tobacco-use approach (PANT) in Coordinated School Health Programs and existing school district Wellness Programs.
4. Identify and implement proven community-based physical activity interventions to promote more active lifestyles among children and adults.
5. Develop new indicators that provide better measurement outcomes for physical activity and obesity and either add them to current BRFSS activities or conduct surveys to address them.
6. Monitor trends over time for levels of overweight and obesity.

OBJECTIVE 4. Reduce cancer-related environmental exposures at home and in the workplace.

Strategies:

1. Partner with federal, state and local governments, businesses, organizations, and communities to identify environmental risk factors.
2. Develop variables to measure knowledge about environmental hazards, and use in pre/post tests and surveys, including population-based surveys such as the Connecticut Behavioral Risk Factor Survey.
3. Assess the use of hazardous substances in Connecticut's manufacturing sectors and make report findings broadly available.
4. Continue the Interstate Clearinghouse on Chemicals and the Coalition for Safe and Healthy Connecticut efforts to classify chemicals existing in workplaces and commercial goods by degree of hazard, and to manage available data on chemicals, including, but not limited to, information on uses, hazards and environmental concerns.
5. Establish links on the Connecticut Cancer Partnership web site to information resources on cancer-related environmental exposures, including the Interstate Clearinghouse on Chemicals.
6. Educate the public, employers, health professionals, and policy-makers about cancer-related environmental exposures, especially radon, pesticides, and home use products, including disparities in exposure risk for specific population groups.
7. Establish policies to reduce high priority chemical hazards in workplaces and to require protective measures for potential cancer-related environmental exposures.
8. Establish an Innovations Institute to serve as a resource for Connecticut business and industry about environmental exposures to carcinogens, the search for and transition to safer alternatives where feasible, and related education programs.
9. Implement primary preventive measures for reducing the usage of chemicals of high concern in Connecticut.

OBJECTIVE 5. Increase the percentage of persons who use sunscreen and practice sun/ultraviolet protection behaviors.

- *Increase the percentage among adults of sunscreen use from 50.4% to 75%.*
- *Increase the percentage among youth of sunscreen use from 10.3% to 75%.*

Strategies:

1. Establish a population-based surveillance system to monitor trends in sun-safety knowledge, attitudes, and behaviors among youth and adults within the state.
2. Implement and evaluate education programs for elementary school children and their parents to teach them about the harms from UV exposure, especially to children, and what they can do to reduce lifetime risk of skin cancer.
3. Develop, implement, and evaluate a sun-safety media education campaign targeting young adults.
4. Implement sun-protection policies such as shade/trees in schoolyards and the wearing of protective clothing and wraparound sunglasses with UV absorption factor.
5. Develop, implement, and evaluate a campaign for pediatricians to inform parents about caring for the skin of babies and young children.
6. Increase awareness of the dangers of artificial sun tanning.
7. Add sun protection questions to CT BRFSS and YRBS.

OBJECTIVE 6. Decrease the percentage of adults and youth consuming alcohol and increase the practice of safe sexual behaviors.

- *Decrease from 5.9% to 4% the percentage of adults who exceed the ACS recommendations for drinks per day.*
- *Decrease from 46% to 40% the percentage of high school students who consume alcohol. Reduce to 20% the percentage of high school students who report binge drinking.*

Strategies:

1. Add questions to BRFSS and YRBS or conduct surveys to monitor trends in knowledge, attitudes, and behavior trends related to high cancer-risk alcohol and sexual behaviors among adults in Connecticut.
2. Use existing or establish new communications forums/networks (i.e. Connecticut Clearinghouse) to share evidence-based programs and patient education/behavioral approaches to reduce cancer-related high risk alcohol and sexual behaviors. Groups to include in such forums/networks might include community-based clinics, Regional Action Councils, MAAD, and public/mental health programs.
3. Continue existing efforts, including DPH programs, to promote voluntary use of HPV vaccine for eligible girls.
4. Continue provider education about DPH EIP passive and active surveillance programs related to HPV and cervical cancer.
5. Establish statewide network of local partnerships, such as Coordinated School Health Councils and teen programs, to promote safe sex practices, alcohol-free activities, and associated environmental and policy changes, with joint participation and support from DPH and SDE.

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Section II:
Connecticut Cancer Plan 2009 – 2013

B. The Continuum of Cancer Control

2. Early Detection

The Power of Unity.

Connecticut CANCER Partnership

The Power of Unity

Early Detection Committee

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2. Early Detection

Cancers that are detected in the initial stages are often curable, and early detection can reduce the time and severity of treatment, improve quality of life, and significantly improve survival. The purpose of conducting screening is to find a cancer as early as possible, maximizing treatment options and affording an individual the opportunity to live longer disease-free. In some cases, screening can prevent cancer from occurring, for example when precancerous polyps are detected and removed during colonoscopy procedures used to screen for colorectal cancer.

In developing new approaches for the **Connecticut Cancer Plan 2009-2013**, the Early Detection Committee reviewed data and considered evidence-based screening tests and screening recommendations. Possible harms must be considered against any potential benefit of screening for cancer. Although most cancer screening tests are noninvasive or minimally invasive, some involve small risks of serious complications that may be immediate (e.g., perforation with colonoscopy) or delayed (e.g., potential carcinogenesis from radiation). For those cancers that do not yet have recommended screenings, such as lung and prostate cancers, the evidence is insufficient to recommend for or against screening, even for individuals at high risk. For some cancers, such as ovarian cancer, the risk of potential harm has been found to outweigh the potential benefit, leading experts to recommend against screening. The Committee decided to weigh the burden of these cancers in Connecticut against the potential benefits and harms of screening, and to develop strategies that best fit the state for early detection of these cancers.

In the US in 2008

the American Cancer Society estimated that:

- 1,437,180 people will have been diagnosed with cancer
- 565,650 people will have died from cancer

Source: http://www.cancer.org/downloads/STT/2008CAFFinalsecured.pdf

Why this goal is important…

Connecticut has one of the highest incidence rates of invasive cancers in the United States. In 2005, Connecticut ranked fifth in the nation[1] for new cancers among females and thirteenth for new cancers among males. If all women who are over 18 years of age or who are sexually active had a Pap test on a regular basis, the survival rate for cervical cancer would be over 90%.[2]

1. **Evidence-based Cancer Screening:** Screening for colorectal, breast, and cervical cancers can detect these cancers at an early stage when they are often curable and can reduce the time and severity of treatment.
2. **Reducing Disparities and Increasing Access:** More people who are at higher risk can have life-saving early detection.
3. **Cancers with No Proven Early Detection Tests:** Using evidenced-based strategies to educate people on early signs and symptoms of cancer, particularly for lung, ovarian, prostate, skin, testicular, and oral cancers for which proven early detection tests do not yet exist, can increase the likelihood of early detection and access to care.

(1) Out of 40 states with data of sufficiently high quality to be included in national cancer incidence statistics (www.cancer-rates.info/naaccr/)

(2) Protect and Detect, What Women Should Know About Cancer, ACOG, http://www.acog.org/from_home/misc/protectAndDetect.pdf

Goal: Ensure that Connecticut residents receive appropriate and timely cancer screenings to detect cancer as early as possible, using quality, accessible, affordable, comprehensive, and evidence-based methods.

Early detection objectives focus on three areas:

1. *Increasing the use of evidence-based cancer screening for colorectal, breast, and cervical cancers.*
2. *Eliminating disparities by increasing access to screening.*
3. *Identifying and promoting the use of evidence-based strategies to educate people about lung, ovarian, prostate, testicular, skin, and oral cancers for which proven early detection tests do not yet exist.*

1. Evidence-based Cancer Screening

Screening is most effective where it will lead to a reduction in morbidity and/or mortality, and where evidence indicates that the benefits outweigh the harms. The Early Detection Committee reviewed data and literature regarding early detection of the major cancers. Evidence-based recommendations currently exist for screening tests for three major cancers[1] : breast, cervical, and colorectal.

2. Reducing Disparities and Increasing Access

There are glaring disparities in rates of new cancer cases and deaths from cancer among different socioeconomic groups, insured and uninsured populations, and certain racial and ethnic groups. These disparities can often be traced to under-use of screening services.[2] People with health insurance are more likely than the uninsured to receive appropriate preventive care, such as cancer screening tests. Screening rates for several cancers, but especially colorectal cancer, are particularly low among minority and low-income populations.[3]

3. Cancers with No Proven Early Detection Tests

The United States Preventive Services Task Force (USPSTF) does not recommend routine screening for lung, ovarian, prostate, skin, testicular, and oral cancers in the general population. However, knowledge of the early signs and symptoms of these cancers might lead to their earlier detection. It is therefore important to ensure that the public and health professionals are aware of these early signs and symptoms.

Existing Programs

Several well-established early detection programs in Connecticut are active partners in the Connecticut Cancer Partnership. Among them is one of the state's strongest programs, the Connecticut Breast and Cervical Cancer Early Detection Program (CBCCEDP), a comprehensive screening program for medically underserved women which started in 1995, offering free services for breast and cervical cancer screening and diagnostic services.[4] Currently, seventeen primary health care facilities and over 100 satellite facilities participate in the CBCCEDP providing program services around the state. The majority of providers consist of hospitals, community health centers, or community-based clinics that collectively screen approximately 8,500 women per year. The program is funded by the Centers for Disease Control and Prevention with supplemental state funding. The Partnership has included this program and other existing programs within its strategies and will help to support and maintain it.

The Community Health Center Association of Connecticut, Inc. (CHCACT) was selected in the spring of 2008 through a request for proposal process by the Department of Public Health to carry out activities related to the **Connecticut Cancer Plan 2009-2013** goals to promote, improve, and optimize the appropriate use of high-quality colorectal cancer screening and follow-up services. The project is also designed to eliminate or decrease racial, ethnic, and socioeconomic disparities in access to and utilization of cancer screening. This demonstration project is developing and implementing a pilot colorectal cancer screening program at select Connecticut federally qualified community health centers. The Connecticut Colorectal Cancer Screening Demonstration Project provides colorectal cancer screening (colonoscopy) for Connecticut residents who are between the ages of 50 – 64, and have no health insurance or have health insurance that does not cover a colonoscopy. Since 2001 in Connecticut, individual and group health insurance policies have been required to cover colorectal cancer screening, including an annual fecal occult blood test, colonoscopy, flexible sigmoidoscopy, or radiologic imaging. CHACT is also charged with the development and provision of outreach and educational training to the participating health centers, and with conducting a statewide colorectal cancer public education initiative in collaboration with the Partnership.

Note to Reader: Measures, Targets, and Data sources may be found in Appendix D. with a preface in the Implementation section: Tracking Plan Progress. All targets are 2013 targets.

Early Detection Objectives

OBJECTIVE 1. Increase the percentage from 82% to 90% of women age 40 and over who have had a mammogram in the past 2 years.

Strategies:

1. Maintain and promote current Breast and Cervical Cancer Early Detection Program (CBCCEDP) goals and objectives.
2. Increase awareness of breast cancer risk factors and the benefits of early detection.
3. Disseminate appropriate information regarding breast cancer screening to underserved and minority groups.
4. Promote low or no cost breast cancer screening programs available to underserved or minority groups.
5. Advocate for policy change among insurers to cover screening costs, and reduce economic barriers to access breast cancer screening.

OBJECTIVE 2. Increase the percentage of women participating in the Connecticut Breast and Cervical Cancer Early Detection Program who receive appropriate follow-up from 90.3% to 95% and diagnosis within 60 days from 90.6% to 95% after receiving abnormal breast cancer screening results.

Strategies:

1. Monitor appropriate follow-up and diagnosis in uninsured/underinsured patients.
2. Identify possible reasons preventing patients from receiving timely appropriate follow-up and diagnosis.
3. Implement processes to ensure women screened receive appropriate follow-up and diagnosis within 60 days of receiving abnormal breast cancer screening results.

OBJECTIVE 3. Increase the percentage of women 18 years of age and over who have had a Pap test within the past 3 years from 86.8% to 90%.

Strategies:

1. Increase the availability and dissemination of appropriate information regarding cervical cancer screening to underserved and minority groups.
2. Promote low or no cost cervical cancer screening programs available to underserved or minority groups.
3. Identify specific populations underutilizing cervical cancer screening for targeted educational activities.
4. Develop and implement plan to reach targeted audiences.

OBJECTIVE 4. Increase the percentage of adults aged 50 and over who have had appropriate colorectal cancer screening (sigmoidoscopy or colonoscopy and/or fecal occult blood test).

Strategies:

1. Increase the availability and dissemination of appropriate information regarding colorectal cancer screening to underserved and minority groups.
2. Promote low or no cost colorectal cancer screening programs available to underserved or minority groups.
3. Determine best practices and disseminate information.

OBJECTIVE 5. Increase the proportion of Connecticut residents who know the early signs and symptoms of lung, ovarian, prostate, testicular, skin, and oral cancers, for which there are no recommended evidence-based screening modalities.

Strategies:

1. Explore methods to establish baselines with partner organizations.
2. Disseminate information regarding early signs and symptoms of lung, ovarian, prostate, testicular, skin and oral cancer to the public, ensuring appropriate informational resources are available to underserved and minority groups through appropriate channels.
3. Identify and promote and/or provide educational opportunities to health care providers to increase knowledge of the early signs and symptoms of ovarian, prostate, testicular, skin, and oral cancers, for which there are no widely accepted, evidence-based, screening modalities (through medical student training, outreach to rural providers and continuing education programs).
4. Disseminate National Comprehensive Cancer Network (USPSTF and NCCN) guidelines to primary audiences.

1 U.S. Department of Health and Human Services Agency for Healthcare Research and Quality. Preventive Services Task Force. Guide to Clinical Preventive Services, 3rd Edition. http://www.ahrq.gov/clinic/cps3dix.htm.

2 Curry SJ, Byers T, Hewitt E, eds. Fulfilling the Potential of Cancer Prevention and Early Detection, Executive Summary. Washington, D.C.: National Academy of Science. National Academies Press. 2003.

3 Connecticut Tumor Registry. http://www.ct.gov/dph/cwp/view.asp?a=3129&q=389716&dphPNavCtr=|47825|#47827.

4 Connecticut Department of Public Health. Health Disparities Project (2006 – 2008). http://www.ct.gov/dph/cwp/view.asp?a=3132&q=396418

Section II:
Connecticut Cancer Plan 2009 – 2013

B. The Continuum of Cancer Control

3. Quality Treatment

The Power of Unity.

Connecticut CANCER Partnership

The Power of Unity

Quality Treatment Committee

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3. Quality Treatment

As a result of new treatments, many people with cancer are being cured of their disease or are living longer with a good quality of life. Cancer is still a difficult disease to treat, however, requiring complex therapy, often with one or more modalities. It is important that both health care providers and their patients have access to the latest treatment information, so they can better understand treatment choices. Patients need to be assured that services are geographically and financially available, that the treatment they receive is evidence-based and of high quality.

Connecticut's cancer treatment services are relatively well distributed throughout the state. Acute care hospitals, cancer centers, freestanding oncology centers, and private practices, along with appropriate support services, are accessible to most Connecticut residents. However, to ensure access to high quality care for all Connecticut residents, there is still progress to be made.

Great improvements in cancer care have resulted from data derived from clinical trials. One aspect of the Treatment Committee's work is ensuring that treatments are evidence-based, which is accomplished through the extensive process of clinical trials. Clinical trials are critical in advancing cancer control from prevention through the end of life. Quality treatment for patients remains the goal of the committee, whether treatment is provided in a research or non-research focused program.

In 2008, the Yale Cancer Center was awarded funds, allocated by the Connecticut Legislature, to develop a Statewide Cancer Clinical Trials Network. In accordance with the *Connecticut Comprehensive Cancer Control Plan 2005-2008*, this award will help stimulate, facilitate, and build capacity for clinical research in Connecticut and accelerate the development and translation of new "cutting edge" cancer therapies for all Connecticut residents.

Why this goal is important…

1. **Standards of Care:** There is no single readily available place to access treatment guidelines and information.
2. **Clinical Trials:** Approximately 3-5% of adult patients participate in cancer clinical trials.
3. **Access to Treatment for Pain Control:** Barriers exist in assuring access to treatment.
4. **Education for Health Professionals and Patients:** There are barriers, both for patients and providers, to participate and enroll in cancer clinical trials.
5. **Hospital Accreditation and Nurse Certification:** Only 67% of acute care hospitals in Connecticut are ACoS accredited.

Goal: *Ensure that Connecticut residents will have access to high quality cancer care (evidence-based where possible) consistent throughout the state.*

The Treatment Committee believes that cancer treatment outcomes will be improved by identifying and removing barriers and promoting:

1. Adoption of standards of care.
2. Maintenance of a statewide clinical cancer network that encourages participation in clinical trials.
3. Access to treatment programs and quality of life services.
4. Education for patients, the general public, and health care professionals on quality treatment.
5. Increased certification of professionals and accreditation by the American College of Surgeons Commission on Cancer of facilities and hospitals that provide oncology services.

1. Standards of Care

Guidelines for cancer treatment and care have been formulated and published by several national organizations, such as the National Comprehensive Cancer Network (NCCN), American Society of Clinical Oncology, American College of Surgeons, American College of Radiology.[1] Coupled with up-to-date treatment information, treatment guidelines are essential for providing quality care. When put into practice, these guidelines help health care professionals to offer standardized care to their patients. Although such guidelines are available, many oncology providers, patients, and their families and friends either are not aware of the available information or do not know where and how to find it.

According to the National Cancer Institute *Cancer Trends Progress Report – 2007 Update*,[2] cancer treatment is improving—saving lives and extending survival for people with cancers of many sites, including breast and colon, and for leukemias, lymphomas, and pediatric cancers. For treatments already in use, trends in patterns of care have been examined for major cancers including breast, colorectal, prostate, and ovarian cancers. The NCI Patterns of Care/Quality of Care and Surveillance, Epidemiology, and End Results (SEER)-Medicare projects supported studies on patterns of care at specific times, generally in relationship to the release of new guidance for additional cancers, including bladder, cervical, endometrial, head and neck, non-Hodgkin Lymphoma, and melanoma. New information on trends in the use of adjuvant therapy for melanoma, ovarian, prostate, and head and neck cancer became available in late 2008.[3]

2. Clinical Trials

Cancer clinical trials are important for the advancement of knowledge about how to prevent, diagnose, and treat cancer.[4] However, according to the Education Network to Advance Cancer Clinical Trials, only 3% to 5% of all adult cancer patients participate in clinical trials and many barriers exist that limit community access to clinical trials.[5] Minorities with cancer are less likely to be offered participation in a clinical trial, and this has led the National Institutes of Health to call for better recruitment minorities to clinical trials.[6] Two surveys and a series of focus groups suggest that "the vast majority of cancer patients are unaware of clinical trials and physicians aren't enrolling patients because they don't have the time, staff, or funding to do so".[7] These findings are reflected in studies recently done in Connecticut.

Barriers to Clinical Trials As Reported by Connecticut Cancer Centers

- 70% overextended physician staff
- 50% limited access to novel trials
- 30% financial constraints
- 20% limited RN staff / data management staff
- 20% limited administrative support
- 10% limited access to phase I trials

Pilot Survey: Quality Treatment Committee

In 2007, the Treatment Committee administered a pilot assessment survey to major cancer centers in Connecticut, to identify access issues and identify specific barriers to clinical trials.[8] Barriers most commonly identified by oncology staff were overextended physician staff, limited access to novel trials, financial constraints, limited administrative support, limited RN staff/data management staff, and limited access to early phase trials with novel drugs.

In 2008, a study was done of the availability of cancer clinical trials in Connecticut, focusing on gaps where relevant, key barriers to conducting and participating in them, challenges to recruiting and accruing underrepresented patient populations, and how to increase accrual of minority racial and ethnic populations.[9] Cancer clinical trials are concentrated in Hartford, New Haven, and Fairfield counties, reflecting the distribution of oncologists and the population.[10] Hartford, New London and New Haven counties had the highest number of clinical trials: (1.36, 1.06, and 0.99 trials per 10,000 population respectively), Fairfield, Middlesex and Litchfield counties reported the existence of some trials, whereas Tolland and Windham counties had no clinical trials. Windham Hospital has a relationship with Hartford Hospital by which they have access to the Hartford Hospital trials. The lack of trials in Tolland could be a reporting issue or could be the result of having very few oncologists.

The statewide clinical trials network will support Connecticut investigator-initiated clinical trials to bring novel agents to the community at an earlier stage and help support a centralized research infrastructure that will enable cancer doctors in every area of the state to access promising new therapies. The Treatment Committee will work with the network to: attract more quality trials, negotiate collectively with industry sponsors to ensure adequate compensation to member sites, and provide a centralized regulatory infrastructure. This will also include providing education, convening practitioners for input and providing funding and staffing. Providers favor facilitating more trials in the community rather than concentrating trials in few locations and relying on referrals for accruals. Best practice guidelines for making network referrals include:

- Provide only the treatments that the referring site cannot provide
- Provide stronger, more collaborative communication back to the referring site
- Consider a multi-directional referral approach (i.e., inform all members about trial locations, to enable referrals to the closest facility).

3. Access to Treatment for Pain Control

During treatment, many cancer patients experience pain or other symptoms that require management by experts; however not all patients have access to adequate pain control methodologies or symptom management. Barriers to pain and symptom management may include: the complexity and fragmentation of the health care system; lack of available providers and services, including support services; lack of cultural competence or cultural sensitivity among health care providers; geographic isolation; lack of childcare, transportation, finances, personal resources, and a personal support system; and social and cultural barriers such as language, individual perceptions and values, racial, ethnic, or gender discrimination. Lack of knowledge is also a barrier to access. Before patients can receive appropriate pain and symptom management, they must be aware of the availability of services. (Please see the Palliative and Hospice Care section.)

4. Education of Health Professionals and Patients

Many of the gaps and some barriers to services along the continuum have already been identified and are being addressed in this Plan through education and information dissemination to both providers and patients. Education is also an important component of treatment. Provider education on service availability, the importance of clinical trials, and how to introduce options to patients can help to increase the accrual of patients. It is also important to document what services are being provided geographically, and to determine service patterns and whether finances are influencing treatment choices.

Helping cancer patients and their families to understand their options, make informed decisions, and manage the effects of cancer and its treatment is also integral to quality treatment. Accurate information and resources allow patients and their families to become active partners in their health care. Components of a good education program for patients, caregivers, and the public include cancer prevention and detection, cancer diagnosis, exploring treatment options, understanding clinical research, connections to educational sessions and support groups, survivorship issues, additional support resources (financial assistance, lodging, transportation, wigs and prosthetics.)[11]

> *"Cancer is a complex, multi-faceted chronic disease that requires specialty nursing interventions at every step of the disease continuum"*
>
> *Coleman, 2002, p. 29*

5. Hospital Accreditation and Nurse Certification

To receive accreditation from the American College of Surgeons (ACoS) Commission on Cancer[12] , hospitals must achieve standards for access to multidisciplinary consultation and treatment, ongoing quality assessment that monitors treatment effectiveness and outcomes, and the availability of modern technology. Accreditation helps to ensure and monitor the quality and safety of patient care in hospitals and clinics. ACoS accreditation evaluates cancer centers for quality care as measured by improved patient outcomes, integrated care and comprehensive services, including cancer prevention and early detection, diagnosis, treatment and support services.

Another major factor in quality treatment is the need for competent nurses who are knowledgeable about how to treat cancer patients. Advances in cancer care require nurses to know and do more than ever before, and the aging population and increasing prevalence of cancer mean that fewer nurses are caring for more patients with cancer. Certification provides validation of the specialized knowledge and experience required for competent performance.[13] As of February 2009 of the 53,284 licensed nurses in Connecticut only 407 were certified in oncology[14] (334 oncology-certified nurses, 31 certified pediatric oncology nurses, 23 advanced oncology-certified nurses,14 advanced oncology-certified nurse practitioners, and 5 advanced oncology clinical nurse specialists).

Several shortages in cancer-related clinical and public health professions already exist or will be a problem in the near future as cancer rates increase with the aging of the baby boomers. In addition to nurses, there will be increasing need for oncology certified and/or specialized professionals such as oncologists, radiation therapists, social workers, and tumor registrars.[15]

Note to Reader: Measures, Targets, and Data sources may be found in Appendix D. with a preface in the Implementation section: Tracking Plan Progress. All targets are 2013 targets.

Quality Treatment Objectives

OBJECTIVE 1. Increase the numbers of patients and health care providers who have recent and comprehensive information about cancer treatment and standards of care.

Strategies:

1. Links to appropriate cancer treatment and symptom management guidelines made available on the Partnership web site.
2. Dissemination of cancer information materials to the public through partner initiatives (e.g. American Cancer Society's Cancer Resource Network, NCI Cancer Information Service, Leukemia and Lymphoma Society, patient navigation programs).
3. Increase number of mechanisms in place for organizations to list professional education opportunities. Link to Partnership web site.

OBJECTIVE 2. Increase the number of Connecticut patients participating in clinical trials.

- *Increase the number of patients enrolled in clinical trials.*
- *Increase the number of investigators enrolling patients in clinical trials.*
- *Increase the number of open clinical trials in Connecticut.*

Strategies:

1. Develop a Statewide network of partners to facilitate availability of, access to and participation in clinical trials (in progress).
2. Develop a financial business plan developed to sustain the clinical trials network.
3. Evaluate clinical trials network.
4. Collaborate on development of a clinical trials web site developed to serve as a clearing house for Connecticut-based clinical trials. Linked to Partnership web site.
5. Promote training/education on clinical trials for health care professionals.
6. Promote dissemination of current and accurate information on clinical trials to patients.
7. Collaborate in development of tools to track patient accrual to clinical trials, including uninsured/underinsured, racial and ethnic minorities.

OBJECTIVE 3. Increase the number of nationally approved cancer programs and oncology certified/specialized health care professionals in Connecticut.

Strategy:

1. Identify barriers and devise strategies to increase numbers of nationally approved cancer programs and of oncology-certified/specialized nurses, oncologists, radiation therapists, social workers, tumor registrars.

1 American Society of Clinical Oncology Practice Guidelines. www.asco.org/guidelines; American College of Surgeons Commission on Cancer. www.facs.org/cancer/; and American College of Radiology. www.acr.org.

2 National Cancer Institute. Cancer Trends Progress Report – 2007 Update. December 2007. http://progressreport.cancer.gov/.

3 National Cancer Institute. Cancer Trends Progress Report – 2007 Update: Treatment. December 2007. http://progressreport.cancer.gov/doc.asp?pid=1&did=2007&mid=vcol&chid=74.

4 National Cancer Institute. Doctors, Patients Face Different Barriers to Clinical Trials. April 11, 2001. http://www.cancer.gov/clinicaltrials/developments/doctors-barriers0401.

5 Education Network to Advance Cancer Clinical Trials. http://www.enacct.org/.

6 National Institutes of Health. Amendment: Policy and Guidelines on the Inclusion of Women and Minorities as Subjects in Clinical Research. October 2001. http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-001.html. http://grants.nih.gov/grants/funding/women_min/guidelines_amended_10_2001.htm

7 National Cancer Institute. Doctors, Patients Face Different Barriers to Clinical Trials. April 11, 2001. http://www.cancer.gov/clinicaltrials/developments/doctors-barriers0401.

8 The 40-question pilot survey was developed by the committee based on input among oncology nurses, physicians and health professionals. Sixteen surveys were sent to major cancer centers – 10 responded.

9 Wellspring Consulting LLC, Yale Cancer Center. Summary report of the Statewide Clinical Trials Network: Service 1 - An Analysis of Gaps in the Availability of Cancer Clinical Trials in Connecticut. November 2008.

10 U.S. Census. American Community Survey. 2006.

11 Mayo Clinic. Patient and Visitor Guide: Cancer Education in Minnesota. http://www.mayoclinic.org/cancer-education-rst/.

12 American College of Surgeons Commission on Cancer. Cancer Program Approval General Information. http://www.facs.org/cancerprogram/home.html.

13 Oncology Nursing Society. Oncology Certification for Nurses. February 2004. http://www.ons.org/Publications/Positions/CertificationPosition.shtml.

14 Certified by the Oncology Nursing Certification Corporation. June 2008. http://www.oncc.org/.

15 C-Change. Cancer Core Competency Pilot Project. *Addressing the Cancer Workforce Crisis Using a Competency-Based Approach with Non-Oncology Health Professionals.* June 2008. http://www.c-changetogether.org/pubs/reports/C-Change%20Cancer%20Core%20Competency%20Final%20Report%209_25.pdf

Section II:
Connecticut Cancer Plan 2009 – 2013

B. The Continuum of Cancer Control

4. Survivorship

The Power of Unity.

Connecticut CANCER Partnership

The Power of Unity

Survivorship Committee

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4. Survivorship

Finding meaning in the cancer experience and learning to appreciate everyday life in a new way is commonly reported among cancer survivors. Yet, the experience of the diagnosis and treatment can produce long-lasting physical and psychological effects for patients and their families.[1] Although they are relieved to have completed treatment, anxiety and uncertainty often increase as they leave the health care team and the supportive treatment environment.[2] They may not know what to expect or how to begin to return to life after treatment.

In 2004, the Centers for Disease Control and Prevention, in partnership with the Lance Armstrong Foundation, produced a national action Plan for the public health community to address cancer survivorship.[3] Some of its key objectives are: to increase awareness of cancer survivorship and its impact; train health care professionals to improve delivery of services and increase awareness of issues faced by cancer survivors; and ensure that all cancer survivors have adequate access to post-treatment follow-up services. In 2006, The Institute of Medicine published, *From Cancer Patient to Cancer Survivor: Lost in Transition,*[4] which identifies unmet needs of and gaps in health care delivery for, cancer survivors. Also published by the Institute of Medicine, *Childhood Cancer Survivorship: Improving Care and Quality of Life,*[5] notes "the intense effort to care for and cure a child with cancer does not end with survival. Continued surveillance and a variety of interventions may, in many cases, be needed to identify and care for consequences of treatment that can appear early or only after several decades and impair survivors' health and quality of life…. A comprehensive policy agenda links improved health care delivery and follow-up, investments in education and training for health care providers, and expanded research to improve the long-term outlook for this growing population."

Why this goal is important…

1. Rising Number of Survivors

- The number of cancer survivors in the U.S. today is approaching 11 million and is growing at a rate of about 3% per year.(1)
- Although the majority of survivors successfully adapt to gradual physical and psychological recovery during the first year after treatment ends, about 20-25% report depressive symptoms.(2)

2. Changes in Connecticut's Population

- Resources for supportive interventions may be limited in ambulatory care settings, where most survivors receive their treatment and care.

3. National Guidelines

The few national guidelines for follow-up that do exist are not well known or used by the average practitioner.

- There is often a lack of continuity of care for survivors across and within specialty care practices.

(1) Espey DK, Wu XC, Swan J, et. al. Annual report to the nation on the status of cancer, 1975-2004. Cancer 2007; 110(10):2119-2152.

(2) Redeker NS, Lev EL, Ruggiero J. Insomnia, Fatigue, Anxiety, Depression, and Quality of Life of Cancer Patients Undergoing Chemotherapy. Research and Theory for Nursing Practice. 2000: 14(4):275-290.

Goal: *To ensure a high quality of life and care for all Connecticut residents living with cancer and for their families*

Cancer patients and their families need to be empowered to make effective choices after treatment has been completed. With the passage of time, the needs of people who have had cancer change, with some requiring few services, while others need many resources to help them.

1. Rising number of survivors

Improvements in early detection and treatment, together with successful prevention efforts, have ensured that more Americans live with cancer than die from the disease (see Section II-A *The Burden of Cancer in Connecticut*). Persistent side effects from treatment can negatively affect the quality of life of many cancer survivors. Cancer survivors also are at risk for physical and psychological long-term or late effects of treatment, including second cancers, cardiovascular disease, diabetes, osteoporosis, and functional limitations. They also may experience problems with employment or insurance.[6] Post-treatment, survivors often receive little direction and guidance about their return to work and expectations for productivity.[7]

Despite their higher prevalence of comorbidities, cancer survivors are less likely than people without cancer to engage in all types of preventive activities.[8] A tremendous need thus exists for behavioral health interventions. There is considerable evidence that lifestyle interventions may decrease the risk of many post-treatment health problems among cancer survivors. These interventions include weight management, nutrition and diet (balancing fat, protein, and carbohydrate intake and increased consumption of fruits and vegetables), physical exercise, smoking cessation, limiting alcohol consumption and sun exposure, and getting appropriate screenings for new cancers.[9]

The growing number of persons living with cancer presents challenges to public health practitioners—to understand and address the needs of cancer survivors and to develop programs that promote their health and well-being. As noted in the National Action Plan for Cancer Survivorship[10] four components are essential to survivorship care: *prevention* of recurrent and new cancers; *surveillance* for new or recurrent cancer and late effects; *intervention* for treatment effects and their impact on life; and *coordination* between oncology specialists and primary care providers to make sure needs are met.

2. Changes in Connecticut's Population

Not only are greater proportions of people surviving cancer, but also the number of elderly people in Connecticut is growing. As noted in Section II-A, *The Burden of Cancer in Connecticut,* the greatest risk factor for cancer is advanced age. For many older people, cancer and other health problems combine with the aging process to make the tasks of daily living more difficult. As the Connecticut population ages, increased efforts will be needed to Plan for the optimal health of older persons, many of whom will become cancer survivors.

Connecticut is also becoming more racially and ethnically diverse (see Section II-A, *The Burden of Cancer in Connecticut*). Overcoming the long-term residual side effects of treatment and post-treatment needs may be more challenging for minority and low-income population groups and those with cultural and/or language differences as a result of system barriers that affect both quality of life and treatment outcomes.

3. National Guidelines

Few guidelines exist for post-treatment surveillance of adult cancer survivors for persistent and late effects of treatment.[11] The American Society of Clinical Oncology (ASCO) has developed cancer treatment summaries for adjuvant treatment of breast and colorectal cancer, and a survivorship care Plan for those diagnosed and treated for breast and colon cancer.[12] In addition, ASCO published information on late effects,[13] and the National Comprehensive Cancer Network produced Supportive Care Guidelines, some of which are relevant for survivors.[14] The Childhood Oncology Group has developed clinical guidelines to address the needs laid out by the Institute of Medicine.[15] It is important to monitor guideline development and make them available to both providers and patients.

Convincing data exist that obesity is associated with breast cancer recurrence and survival, and evidence on obesity and prognosis is also accumulating for other cancers.[16]

The Survivorship Committee formulated goals and objectives for Connecticut that interface with the aforementioned national goals and plans. Note to Reader: Measures, Targets, and Data sources may be found in the Appendix D. with a preface in the Implementation section: Tracking Plan Progress. All targets in the objectives are 2013 targets.

Survivorship Objectives

OBJECTIVE 1. Increase the proportion of provider referrals and cancer survivors who access and use survivor support services.

Strategies:

1. Develop a system of monitoring utilization of survivor services over time.
2. Develop mechanisms to identify and address deficiencies and gaps in services for populations of interest, including but not limited to, survivors with less common forms of cancer.
3. Maintain and update resource inventory and accessible centralized clearinghouse; market availability to providers and patients.
4. Educate community members, groups, and organizations about survivor issues and the value of support services (during and post-treatment) and how to access services, with special focus on reaching underserved population groups.
5. Coordinate with Patient Navigators and similar service coordinators to assure survivor services are provided and included in referral options.

OBJECTIVE 2. Increase the number of health care providers who are knowledgeable about survivorship care.

Strategies:

1. Monitor the release of survivorship care guidelines and information, and make the guidelines and information available on the Partnership web site.
2. Partner with academic institutions and professional organizations to develop and offer educational opportunities for health care providers on topics such as survivorship issues and care guidelines.
3. Use the Partnership web calendar to provide timely notification of educational opportunities, conferences, and continuing education on survivorship.

OBJECTIVE 3. Increase the number of providers, families, and caregivers who are knowledgeable about the needs of children surviving cancer.

Strategies:

1. Support efforts of pediatric cancer programs in state to follow guidelines on follow-up care for survivors of childhood cancers.
2. Partner with community and professional organizations, faith-based groups, and academic institutions to develop and offer educational opportunities on the needs of childhood cancer survivors.

OBJECTIVE 4. Increase the proportion of cancer survivors who practice positive health behaviors regarding weight, diet, physical activity, tobacco and alcohol use, sun exposure, and cancer screenings, using culturally appropriate methods.

Strategies:

1. Partner with insurance companies and/or academic institutions to monitor and report on survivor health status and health risk behaviors.
2. Engage providers, key stakeholders, and other initiatives to disseminate, promote, and use national recommendations for routine physical activity and healthy food choices, such as the *American Cancer Society guide for Informed Choices on Nutrition and Physical Activity during and after Cancer Treatment.*[17]
3. Disseminate information on the importance of psychological screenings to address depression and other factors that may affect quality of life.
4. Advocate for insurance coverage of screening and wellness programs.
5. Develop culturally appropriate activities and methods of improving health literacy for providing information to low literacy and non-English speaking cancer survivors.

1 Ganz PA. *Cancer Survivorship. Today and Tomorrow*. New York: Springer Publishers; 2007.

2 Lethborg CE, Kissane D, Burns WI, Snyder R. Cast Adrift: The experience of completing treatment among women with early stage breast cancer. *Journal Psychosocial Oncology* 2000; 18(4): 73-90.

3 Centers for Disease Control and Prevention and Lance Armstrong Foundation. *A National Action Plan for Cancer Survivorship: Advancing Public Health Strategies*. Atlanta, GA: Centers for Disease Control and Prevention. 2004.

4 Institute of Medicine. *Cancer Patient to Cancer Survivor: Lost in Transition.* Washington, DC: National Academy Press. 2006.

5 Hewitt M,, Weiner SL, Simone JV, eds. *Childhood Cancer Survivorship: Improving Care and Quality of Life*. National Research Council; 2003. Institute of Medicine; 2006.

6 Ganz PA. *Cancer Survivorship. Today and Tomorrow.* New York: Springer Publishers; 2007.

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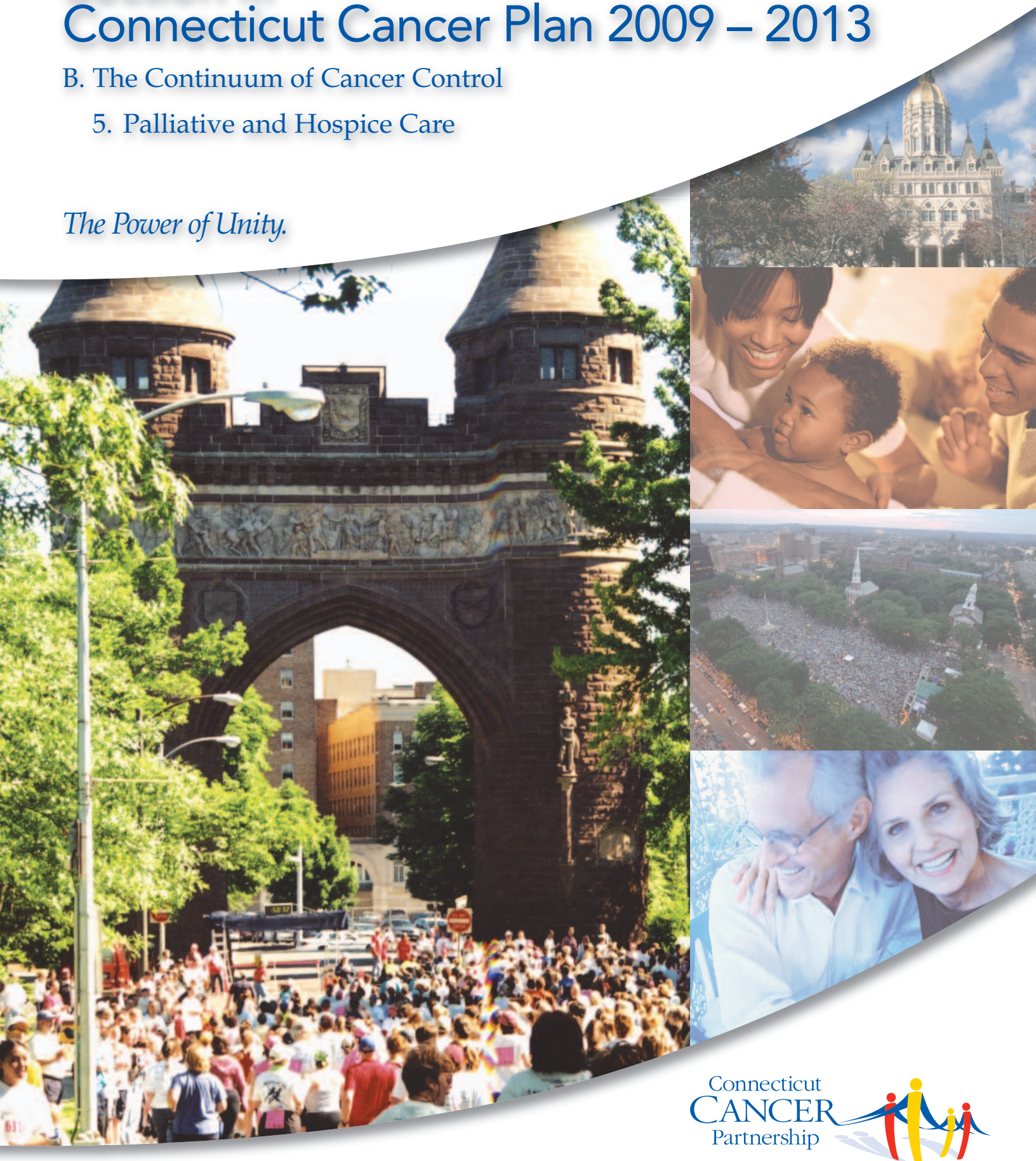
Section II:
Connecticut Cancer Plan 2009 – 2013

B. The Continuum of Cancer Control

5. Palliative and Hospice Care

The Power of Unity.



Connecticut CANCER Partnership

The Power of Unity

Palliative and Hospice Care Committee

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Leslie Blatt, RN, MSN	Yale- New Haven Hospital
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Donna Connery, CTR	VA Connecticut Healthcare System
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Patricia Linehan, RN	Visiting Nurse and Hospice Care of Southwest CT
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Marilyn Shirley, RN, BA, MA	Family Member of Cancer Patient
Kimberly Skehan, RN, MSN	CT Assn. for Home Care and Hospice
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Cecelia Sullivan	Patient Advocate
Carol Townsend	Visiting Nurse and Hospice Care of Southwest CT
Patricia Trotta, RN, MSN, Past Co-chair	Connecticut Pain Initiative
Mary Ann Tsourounakis, RN, MS, CHPN	Greenwich Hospital Home Hospice
Nealy Zimmermann, MA	CT Coalition to Improve End of Life Care

5. Palliative and Hospice Care

Helping people with cancer live well at every stage of their illness is the primary purpose of palliative care. The Health Resources and Services Administration has defined palliative care as patient- and family-centered care that optimizes quality of life by active anticipation, prevention, and treatment of suffering. It emphasizes the use of an interdisciplinary team approach throughout the continuum of illness, placing critical importance on building respectful and trusting relationships. Moreover, the provision of palliative care is not dependent upon prognosis and can be used alongside curative or life-prolonging treatments. Palliative care addresses physical, intellectual, emotional, social, and spiritual needs for patients of all ages and their loved ones, facilitating patient autonomy, access to information, and choice.[1]

Hospice services offer a combination of palliative and supportive care services for people in the final stages of illness and their families, when curative treatments are no longer sought. In addition to direct care, services provided may also include respite care, bereavement support, and financial planning. Hospice care may be received in the home or in residential inpatient settings such as hospitals, nursing homes, or hospice homes. Hospice care has a long history involving many partners in Connecticut. The first inpatient hospice program in the United States was established in New Haven in 1971 and the first freestanding inpatient hospice opened in Branford in 1980. This inaugurated the national hospice movement.

Why this goal is important…

1. **Availability and Accessibility of Care:** Adequate services are still not readily available in many health care settings. For example, only 14 of 26 mid and large sized Connecticut hospitals had a palliative care program in 2007.[(1)] In 2007, only 28% of Medicare patients dying in Connecticut were on the hospice benefit,[(2)] and only 27.7 % of deaths in 2006 occurred at home.
   - Patients in Connecticut are referred to palliative and hospice services too close to time of death, thus denying them and their families the opportunity to receive optimal care and support.
   - Although Connecticut adopted a Medicaid hospice benefit in 2008, there are still gaps in coverage for pain and palliative care services.
   - Poor and medically underserved populations may have limited access to culturally appropriate palliative and hospice care services.
2. **Coordinated Care:** Surveys indicate that Connecticut residents would like:
   - Better coordination of care and dialogue with providers about death and dying.
   - Prompt referrals to hospice and palliative care.
   - Counseling to dying patients, and more access to spiritual care.[(3)]
3. **Palliative and Hospice Care Workforce:** Although numbers are increasing, in Feb. 2009 there were only 27 physicians and 163 nurses certified in palliative and hospice care.[(4,5)]

(1) Center to Advance Palliative Care. America's Care of Serious Illness: A State by State Report Card on Access to Palliative Care in Our Nation's Hospitals. 2008.

(2) The Dartmouth Atlas of Health Care. http://www.dartmouthatlas.org/.

(3) Connecticut Department of Health Death Registry. Unpublished analysis of 2006 Place of Death Data.

(4) American Academy of Hospice & Palliative Care Medicine. Certification Overview. http://www.association-office.com/ABHPM/etools/publicdir/Search.cfm.

(5) National Board for Certification of Hospice & Palliative Care Nurses. http://www.nbchpn.org.

Goal: *To ensure that high quality palliative and hospice care services are available and accessible to all Connecticut residents.*

For purposes of this Plan, palliative care is available at every step of the cancer experience, whereas hospice care is offered when the life expectancy is six months or less. Few people are fully prepared to make the hard choices that are needed at the end of life. Palliative and hospice care can ease the pain and provide invaluable support for making informed end of life decisions.

In 2008, the Connecticut State Department of Health provided funds to the Connecticut Coalition to Improve End-of-Life Care to conduct an online educational needs assessment of providers who care for patients and their families at end-of-life, including nurses, physicians, social workers, pharmacists, chaplains, administrators, funeral directors, and nursing assistants. The survey was available online through April, 2009 and data are currently being analyzed by demographic characteristics, years of experience, and work setting. Results will be used to develop a long term Plan to meet the education needs of providers in Connecticut to ensure high quality palliative and hospice services for all Connecticut residents.

1. Availability and Accessibility of Care

Many patients do not receive adequate palliative and hospice care services, even when these services are available.[2, 3, 4] This is the result of several factors. First, the kind, quality, and amount of palliative and hospice care received varies with the setting in which terminally ill patients reside (at home, long-term care facilities, assisted-living facilities, hospitals, or prisons). Second, health care professionals are often inadequately trained in palliative or end-of-life care. Third, there are often financial barriers. Medicare, Medicaid, and some insurance plans cover hospice care, whereas palliative care is often covered indirectly, if at all. Finally cultural backgrounds, religious beliefs, and socioeconomic status can affect both the use and delivery of palliative and hospice care.

In 2007, the average length of stay for Medicare Hospice beneficiaries nationally was 72 days.[5] That year, the average length of stay in Connecticut was 45 days, ranking Connecticut last among all the states. Among just the New England states, the median length of stay for 2007 was 56 days; almost 25% more than the 45-days seen in Connecticut (NH:51, VT:58, RI:61, ME:67, MA:68). A focus on increasing the average length of stay will help insure that more patients at end-of-life, and their families, receive the supportive services intended by this Medicare benefit.

2. Coordinated Care

A coordinated interdisciplinary team affords the best chance at providing optimal palliative care to persons who need pain or symptom relief or end-of-life services. The palliative care team includes a variety of health professionals, such as the doctor or care team leader; the nurse, who gives direct care to the patient and assists with managing pain and other side effects of cancer or its treatment; the social worker who helps with financial issues, family support and discharge from the hospital to home or hospice care; a spiritual advisor who counsels the patient and family members on religious and spiritual matters; a dietitian who advises on nutritional needs; a pharmacist who coordinates access to and management of medications; a physical therapist who helps maintain mobility as long as possible; and a grief and bereavement coordinator who provides both counseling and assistance with memorial services planning.[6]

3. Palliative and Hospice Care Workforce

Increasing the number of professionals who have training or certification in palliative and hospice care can directly affect how people learn about available services, how they access services, and the timing and amount of care they receive. To create a culturally diverse workforce that understands the importance of palliative and hospice care, training opportunities for health care professionals are endorsed by the Palliative and Hospice Care Committee. The trainings might include college courses, certification preparation programs, continuing education conferences, and on line learning.[7] The development of certification programs varies by professional groups. To date, both physicians and nurses have made significant more progress than other groups. There are accrediting bodies established for both and others are in various stages of development, including social work and administrators.

Note to Reader: Measures, Targets, and Data sources may be found in the Section III B Implementation section: Tracking Plan Progress. All targets in the objectives are 2013 targets.

Palliative and Hospice Care Objectives

OBJECTIVE 1. Increase the number of health care professionals who specialize in or are certified in palliative and hospice care.

- *Increase from 27 to 30 the number of certified physicians.*
- *Increase from 163 to 250 the number of certified nurses.*
- *Increase from 0 to 6 the number of nursing administrators.*

Strategies:

1. Use the results of the 2009 CT Palliative and Hospice Care Needs Assessment Survey to:
   a. Identify organizations that offer palliative or hospice care education programs.
   b. Collaborate across organizations and agencies to develop standards in end-of-life education.
2. Include palliative and hospice care curricula in programs at medical, nursing, counseling and pastoral care schools.
3. Partner with member organizations to provide palliative and hospice care continuing education programs for physicians, nurses, social workers, hospital chaplains, community clergy, and lay volunteers through Connecticut health care systems, professional organizations, and community groups.
4. Provide links to palliative and hospice care information and resources for health professionals on the Connecticut Cancer Partnership web site.
5. Partner with member organizations to provide educational opportunities within health care systems, colleges and organizations for physicians and nurses to become certified in hospice and/or palliative care.

OBJECTIVE 2. Increase the number of health care settings offering palliative and hospice care services.

- *Increase from 14 to 20 the number of hospitals offering palliative care services.*
- *Increase the number of Home Care Providers with Hospice Licensure.*

Strategies:

1. Advocate for coverage for palliative and hospice services through all health insurance programs.
2. Disseminate information on best practices for palliative and hospice care in health care facilities.
3. Provide links to education programs about integrating palliative care into clinical services on the Connecticut Cancer Partnership web site.
4. Promote integration of palliative care into clinical services offered in hospitals, home care agencies and long-term care facilities.
5. Obtain baseline data for Nursing Homes and Home Care Providers (survey or student project).

OBJECTIVE 3. Increase the number of people served by palliative and hospice care initiatives, including current pediatric, prison, and Veterans' initiatives, that address targeted and/or medically underserved population groups.

Strategies:

1. Identify and initiate quality improvements for pediatric palliative and hospice care.
2. Promote collaboration between the Connecticut Prison Hospice Initiative and the Connecticut Department of Correction's Hospice and Palliative Care Program to train correctional staff and inmate hospice volunteers.
3. Identify and initiate end-of-life quality improvements for the care of Connecticut's Veterans.
4. Advocate for expanded initiatives to address palliative and hospice care needs of uninsured, racial/ ethnic minorities, people with mental health conditions, developmental disabilities, and addictions.

OBJECTIVE 4. Increase the proportion of patients receiving effective pain management.

Strategies:

1. Work with partners and Data, Surveillance, and Evaluation to initiate collection and analysis Connecticut data (see Data Sources above) to obtain baselines, identify disparities that might be targeted with interventions, and determine future targets.
2. Promote educational programs in colleges, health care facilities and communities about best-practices in pain management targeting health care professional audiences (physicians, nurses, administrators, social workers, pharmacists, substance abuse counselors).
3. Promote opportunities and incentives for physicians and nurses to become certified in pain management by their respective boards (ABMS, AAPM).[8]
4. Promote updating/revision of patient care policies and programs at Connecticut health care facilities as needed to reflect best practices in pain management.
5. Advocate for revision/improvement of state regulations and policies to conform to the Pain & Policy Study Group's (PPSG) *Central Principle of Balance* and to achieve a grade of "A" on their Report Card.[9]

OBJECTIVE 5. Increase the percentage of Connecticut residents who receive hospice care in a timely manner and at home.

- *Increase from 28% to 35% the percentage of Medicare patients in Connecticut who are on hospice benefit at time of death.*
- *Increase from 27.7% to 35% the percentage of persons receiving hospice care at home at time of death.*
- *Increase from 45 days to 56 days as the average length of stay on Medicare hospice benefit prior to death.*

Strategies:

1. Promote educational opportunities for the public to learn about the benefits and availability of palliative and hospice care and the benefits of creating a living will.
2. Working through church leaders, senior citizen groups and local public health officials, institute culturally competent outreach, education, and partnership efforts within diverse communities to reach minority, immigrant, and English as a Second Language (ESL) population groups.
3. Improve quality of care and provider expertise per Objectives 1 and 2 above.

1 Center for Disease Control and Prevention. Global AIDS Program Technical Strategy: Palliative Care. May 16, 2004. http://www.cdc.gov/nchstp/od/GAP/docs/Palliative_Care_Strategy.05.16.04.pdf.

2 Byock I, Twohig J, Merriman M, Collins K. Promoting excellence in end-of-life care: A report on innovative models of palliative care. *Journal of Palliative Medicine*. 2006;9:137-151.

3 Kralik D, Anderson B. Differences in home-based palliative care service utilization of people with cancer and non-cancer conditions. *Journal of Nursing and Healthcare of Chronic Illness*. 2008;17(11);429-435.

4 Griffin J, Koch K, Nelson J, Cooley M. Palliative care consultation, quality-of-life measurements, and bereavement for end-of-life care in patients with lung cancer. *Chest.* 2007;132:404S-422S.

5 *NHPCO news release February 20, 2009, Medicare Hospice Data by State for 2007 link: http://www.nhpco.org/i4a/pages/Index.cfm?pageID=5428, members access only*

6 Mayo Clinic. Diseases and Treatments: Palliative Care Overview. http://www.mayoclinic.org/palliative-care/.

7 National Board for Certification of Hospice and Palliative Nurses. http://www.nbchpn.org/DisplayPage.aspx?Title=Welcome!. Center to Advance Palliative Care. Hospice and Palliative Care Across the Continuum. http://www.capc.org/palliative-care-across-the-continuum/.

8 American Board of Medical Specialties. https://www.abms.org. American Academy of Pain Management. http://www.aapainmanage.org/members/Credentialing.php.

9 Paul P. Carbone Comprehensive Cancer Center Pain & Policy Studies Group. *Achieving Balance in State Pain Policy: A Progress Report Card (Fourth edition)*. Madison, WI: University of Wisconsin. 2008.

Section II:
Connecticut Cancer Plan 2009 – 2013

C. Cross-Cutting Activities and Support

The Power of Unity.

Connecticut CANCER Partnership

The Power of Unity

C. Cross-Cutting Activities and Support

Each of the preceding sections focuses on a particular segment of the cancer continuum. As each committee defined its priorities, it incorporated and identified strategies that require action to be taken in the areas of communication, disparities and access, education, advocacy, and surveillance and evaluation. Recognizing that these disciplines have responsibilities that bridge the continuum, the Connecticut Cancer Partnership has committees or work groups that concentrate on providing the skills, actions, and support required to implement improvement across the spectrum of cancer.

The cross-cutting committees have tailored their roles to best meet the priorities identified by the continuum committees. In some cases they have created unique objectives and strategies to accomplish their goals. In others, they have defined roles and specific responsibilities to provide appropriate implementation support.

Much of the value of Partnership activity is achieved through the work of the cross-cutting committees. For example, an issue regarding unequal access to a particular service may be recognized by the Disparities Resource Team then quantified by the Data, Surveillance, and Evaluation Committee. Depending on the type of service, one of the continuum committees could take the matter up using member expertise and after research and further definition, determine that the solution is a change in policy regarding information provided to patients. With input from the Connecticut Cancer Partnership Board of Directors, the Advocacy Committee can then formulate a policy recommendation on this topic as part of its agenda. Working with Communications/Education, it can develop materials to gain support for promoting or funding a new initiative to address the problem.

The following four sections detail the approaches taken by the cross-cutting committees along with highlights from the continuum committees' goals as specified in earlier chapters.

Section II:
Connecticut Cancer Plan 2009 – 2013

C. Cross-cutting Activities and Support

1. Disparities and Access

The Power of Unity.

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Former Disparities Committee and New Disparities Resource Team

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Denis Coble, Disparities Resource Team Leader	University of Connecticut
Andrea Silber, MD, Disparities Resource Team Leader, Past Co-chair	Hospital of St. Raphael
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Ashiko Brinkley, BS, MPH	New Haven Health Department
Rosa Browne, MBA	Yale-New Haven Hospital
Shelley Carpenter	Leukemia & Lymphoma Society
Stephanye R. Clarke	Ledge Light Health District
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Sandra Fisher, RN/ BS	Programs Witness Project of CT
Cheryl Harris Forbes	CT African American Affairs Com.
Terri Foster, MS, MPH	Public Health Consultant
Katherine Fowler	Windham Regional Cmty. Council
Margarita Gardner	Gardner's House
Ingrid Gillespie	Lower Fairfield Regional Action Council
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Louis Gonzalez, MA, MPH, HA	John D. Thompson Institute
Beth Jones, PhD, MPH, Past Co-chair	Yale University School of Medicine
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Marilyn Moore	Witness Project of CT., Inc.
Stephanie Paulmeno, MS, RN, NHA	Greenwich Department of Health
Shirley Pinette, MS, RT, FASRT	Yale New Haven Hospital
Carlos Rivera, MPH, MBA, LCSW, CHE	Hartford Health & Human Svcs.
Denise Rivera, BS	Hispanic Health Council
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Barbara Walsh	CT Department of Public Health
Susan Wright, BS, MBA	Hartford Hospital
Donette Wright, MPH	CT Department of Public Health

1. Disparities and Access

The National Cancer Institute defines cancer health disparities as "differences in the incidence, prevalence, mortality, and burden of cancer and related adverse health conditions that exist among specific populations groups in the United States."[1]

One of the lessons to emerge from analysis of the *Connecticut Comprehensive Cancer Control Plan 2005-2008* and the effort to catalog its accomplishments was that it is unrealistic and artificial to establish goals and objectives in the isolated category of "disparities." It is clear from the content of this new Plan that these issues are threaded throughout each of the continuum areas. A few examples of this underlying focus include the following: Social determinants of health are addressed with regard to prevention. There is a special focus on the prevalence of smoking among low socioeconomic groups, and trends tracking risk factors by are spelled out under the prevention objectives in Appendix D. A major goal of the Early Detection section is addressing the reduction of disparities and increasing access to screening services. In the Quality Treatment section, there is a discussion about increasing minority enrollment in clinical trials, an area the Partnership is prioritizing. The Survivorship section identifies the challenges faced by minority and low-income populations groups and those with cultural and/or language differences, which affect quality of life and outcomes. Initiatives directed at improving care at the end of life specify the need to increase outreach and advocacy for underserved populations and focus efforts on improving access for non-English speaking people as well as those facing other challenges, such as mental health problems.

If people experience inequities, whether problems with access, disparities in outcomes, or access to prevention resources, it is probable that the same subset of the population will experience the same disadvantages at another point in the continuum of cancer control. In fact, it is likely, and evidence shows, that cancer inequities will be mirrored by less favorable outcomes with other chronic diseases such as diabetes, heart disease, asthma, stroke, and HIV.

The Connecticut Cancer Partnership decided to improve its approach in tackling the pervasive problems of disparities and access by the establishment of a Disparities Resource Team, with subject matter experts who will work to identify opportunities that can have a positive impact in addressing disparities at each point in the continuum. Therefore, the Disparities Resource Team has developed the following as its goal:

Goal: *Maintain a consistent focus on eliminating disparities within the context of the each of the continuum committees' objectives and strategies.*

OBJECTIVE: Share positive practices, identify and engage appropriate partners to effectively reduce disparities, and universally improve access to care in Connecticut.

Strategies:

- Solicit representatives from underserved patient populations to serve on Disparity Resource Team to ensure culturally appropriate approach.
- Develop a tracking system and information collection approach to ensure that there is a collaborative and coordinated approach to address the needs of special populations. This may be best achieved by operating closely with the Prevention Committee, as it works with non-cancer health partners in the area of nutrition, obesity, and physical activity, for example. Efforts to reduce risk factors, which lead to higher incidence rates of cancers can also lead to reductions in the poor health outcomes associated with other diseases.
- Encourage the use of evidence-based practices to favorably alter minority health outcomes. Instituting practices such as tracking and reminder systems or assignment of a regular care provider have received high grades in evidence- based research analysis.
- Encourage the development of cultural competencies among health care workers.
- Work with all other committees to identify a committee liaison to work with the Disparities Resource Team on a particular continuum focus area.

Objectives and strategies from each of the continuum areas highlight specific areas where disparity and access issues must be monitored. For example, actions to effect change include:

Prevention: Decreasing tobacco use among adults and youths, paying special attention to populations experiencing tobacco-related disparities; and increasing the maintenance of a healthy weight among adults and youth, paying special attention to underserved populations.

Early detection: Increasing the percentage of women participating in the Connecticut Breast and Cervical Cancer Early Detection Program receiving appropriate follow-up and diagnosis within 60 days after receiving abnormal breast cancer screening results; and promoting low or no cost breast, cervical, and colorectal cancer screening programs to underserved or minority groups.

Quality treatment: Collaborating in the development of tools to track patient accrual to clinical trials, including uninsured/underinsured, racial and ethnic minorities.

Survivorship: Fostering positive health behaviors by cancer survivors, with a focus on cultural issues and health literacy, and developing culturally appropriate activities and methods to improve health literacy among low literacy and non-English speaking cancer survivors.

Palliative and Hospice Care: Increasing the number of people served by palliative and hospice care initiatives, including current pediatric, prison, and Veterans' initiatives, that address targeted and/or medically underserved population groups; and instituting culturally competent outreach, education, and partnership efforts within diverse communities to reach minority, immigrant, and English as a Second Language (ESL) population groups.

1 Agency for Healthcare Research and Quality. Strategies for Improving Minority Healthcare Quality. Evidence Report/Technology Assessment: Number 90. January 2004. http://www.ahrq.gov/clinic/epcsums/minqusum.htm.

Section II: Connecticut Cancer Plan 2009 – 2013

C. Cross-Cutting Activities and Support

2. Communications, Education, and Training

The Power of Unity.

Connecticut CANCER Partnership

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Communications Committee

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Kristine Diana, LPN, Education Co-chair	Yale Cancer Center, Cancer Information Service of New England
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Cheryl Harris Forbes	CT African American Affairs Commission
Leslie Gianelli, JD	CT Hospital Association
Garrett Havican, MBA	Middlesex Hospital Cancer Center
Barbara Lumpkin	Yale Cancer Center, Cancer Information Service of New England
Sarah Shafir, MPH	American Cancer Society
Simone Upsey	American Cancer Society
Eve Potts	Choices Inc.
Paula Wilson	Yale Stem Cell Center

2. Communications, Education, and Training

A creative, well-organized communications program targeted to reach specific audiences — patients, health professionals, present and new partners, policy makers, state leaders, public agencies and organizations, disadvantaged populations, the public and the private sectors — is essential to the success of the Connecticut Cancer Partnership and its **Connecticut Cancer Plan 2009-2013.**

The role of the Communications Committee, comprising experts in public relations and communications, is to work collaboratively with other Partnership committees to support their communications needs in a structured, orderly manner.

Goal: *Provide an active, coordinated communications program that will raise awareness about the **Connecticut Cancer Plan 2009-2013** and the Partnership for a wide variety of audiences.*

In developing new approaches for the **Connecticut Cancer Plan 2009-2013**, the Communications Committee focused on five areas:

1. Communicating with existing partners

Regular and effective communication with Partnership members is essential to obtaining the greatest participation in the work of the Partnership and Plan implementation. In 2005-2008, several channels of communicating information about the Partnership and the *Comprehensive Cancer Control Plan 2005-2008* were developed, including a web site, quarterly newsletter, fact sheets, slide presentations, briefings for legislators, and a speakers' bureau. These methods of communication, while effective, would benefit from refinement, enhancement, and professional management.

2. Presenting the new Connecticut Cancer Plan 2009-2013 to the public and major target audiences

The new Plan creates a unique opportunity to communicate the new goals and objectives to all audiences.

3. Collaborating with Partnership Committees to communicate implementation activities to specific audiences

There is a need to keep diverse audiences apprised of the Partnership, the Plan and its progress on implementation. Many of the funded implementation activities have educational or promotional components, such as increasing public awareness and recruiting participants for projects, which would benefit from coordination with the Communications Committee.

4. Exploring new communications technologies to support Partnership efforts

Communications technologies and new delivery models such as social media, Web 2.0, blogs, and podcasts affect how information is delivered and received and how constituents are reached and engaged. In this rapidly changing field, it is essential for the Communications Committee to explore new avenues, channels, and delivery methods.

5. Coordinating and supporting education and training needs of Partnership committees.

Increasing the knowledge of health care professionals and populations at risk for or living with cancer is vital to achieving the Plan objectives. Whether the information is about clinical trials, screening, risk factors, or available services and making choices, health care professionals and the general population benefit by having the most current and accurate information available. The Communications Committee convened an education and training subcommittee to support, as needed, education and training implementation activities of the Partnership's committees.

Communications Objectives

OBJECTIVE 1. Improve existing methods for ongoing communications with Partnership members.

Strategies:

- Create/update fact sheets on specific issues
- Develop new materials to recruit new partners
- Expand and improve the Partnership web site.
- Develop mechanism for resource listings
- Identify and implement more effective methods of producing and distributing a quarterly electronic newsletter
- Select and implement more effective methods of sharing information with partners, through an e-mail management system
- Retool speakers' bureau, including a plan for recruiting new speakers, a training program for existing and new speakers, the updating of ancillary materials and creation of new exhibits
- Evaluate web site and other communications tools currently used by Partnership

OBJECTIVE 2. Prepare campaign for release of Connecticut Cancer Plan 2009-2013.

Strategies:

- Create logistics action plan: time and place of releases; news conference plan, speakers; and invitees (media, others)
- Prepare materials for press kit; news releases, photos, fact sheets, lists of committees, etc.
- With the Advocacy Committee, create/update fact sheets on specific topics and issues, develop new materials targeting legislators. Prepare materials for policy change requests or funding ("asks") from the Connecticut State Legislature and other funding sources
- Develop an abbreviated version of the **Connecticut Cancer Plan 2009-2013** to be used for education and promotion purposes

OBJECTIVE 3. Inform the general public, target audiences and population groups about funded implementation activities.

Strategies:

- Collaborate with project staff, contractors, and committees to identify target audiences and activities that need to be promoted. Determine specific tactics to be used in reaching each group and materials needed for each segment
- Engage a marketing/health communications firm to create, produce, and supervise multi-media campaigns to reach target audiences
- Design and implement multi-media, sustained public awareness campaign(s) for the Connecticut Cancer Partnership and the **Connecticut Cancer Plan 2009-2013**
- Develop a mechanism for producing and distributing regular updates on the progress of implementation activities.

COMMUNICATIONS COMMITTEE

Strategies for implementation in collaboration with Partnership Committees

Marketing/Media Campaigns

Prevention

- Conduct a marketing campaign to support statewide smoking cessation program that meets Public Health Service and National Action Plan guidelines.
- In collaboration with DPH and MATCH (Mobilize against Tobacco for Connecticut's Health) initiate and fund a statewide tobacco education media campaign like those shown to be effective in other states such as Florida, Maine, Massachusetts, and California.
- Develop, implement, and evaluate a sun-safety media education campaign targeting young adults.

Early Detection

- Increase awareness of breast cancer risk factors and the benefits of early detection.

Treatment

- Conduct public awareness campaigns involving community organizations (including faith-based), health care providers, and insurers on quality treatment options, standards of care, and support services.

Survivorship

- Market availability of resource inventory and accessible centralized clearinghouse to providers and patients.

Palliative and Hospice

- Promote educational opportunities for the public to learn about the benefits and availability of palliative and hospice care and the benefits of creating a living will.
- Working through church leaders, senior citizen groups, and local public health officials, institute culturally competent outreach, education, and partnership efforts within diverse communities to reach minority, immigrant, and ESL population groups.

OBJECTIVE 4. Explore new technologies and delivery methods for communicating information about the Partnership and the Plan.

Strategies:

- Work with a marketing/health communications firm to coordinate projects
- Convene a group of experts to outline possible technologies and Partnership uses of them
- Dialogue with partners to identify needs and approaches
- Produce a plan that identifies future communications tools and technologies including costs and other resources needed

OBJECTIVE 5. Support the education and training implementation activities of the Partnership's committees.

Strategies:

- In collaboration with Partnership committees, increase opportunities for educating and training health care professionals on specific cancer issues
- Work with cancer health care professional workforce development initiatives
- Work with committees to inform and educate target populations on cancer issues

EDUCATION/TRAINING COMMITTEE

Strategies to be Implemented by Education/Training Committee in Collaboration with Partnership Committees

Prevention

- Partner with groups such as Regional Action Councils, MADD (Mothers Against Drunk Drivers), and mental health organizations to develop a forum to help support efforts to reduce high risk behaviors in youth and adults related to alcohol and sexual activity and share effective programs.
- Educate the public, employers, health professionals, and policy-makers about cancer-related environmental exposures, especially radon, pesticides, and home use products, including disparities in exposure risk for specific population groups.
- Educate pediatricians on the importance of informing parents about caring for the skin of babies and young children.
- Increase awareness of the dangers of artificial sun tanning.

Early Detection

- Identify and/or develop information regarding early signs and symptoms of lung, ovarian, prostate, testicular, skin, and oral cancer for dissemination to the public, ensuring appropriate informational resources are available to underserved and minority groups through appropriate channels.
- Develop and implement a plan to reach targeted audiences (i.e. specific populations underutilizing cervical cancer screening for targeted educational activities).

- Identify and promote and/or provide educational opportunities to health care providers to increase knowledge of the early signs and symptoms of ovarian, prostate, testicular, skin, and oral cancers, for which there are no widely accepted, evidence-based, screening modalities (through medical student training, outreach to rural providers, and continuing education programs).
- Identify and promote evidence-based cancer prevention and screening education and outreach initiatives aimed toward disparate population groups, including materials designed for multi-cultural and low literacy populations.
- Increase awareness of breast cancer risk factors and benefits of early detection.

Treatment

- Increase number of mechanisms in place for organizations to list professional educational opportunities, including link to Connecticut Cancer Partnership web site.
- Educate professionals and the public about the importance of clinical trials.
- Promote training/education on clinical trials for health care professionals.
- Promote dissemination of current and accurate information on clinical trials to patients.

Survivorship

- Educate community members, groups, and organizations about survivor issues and the value of support services (during and post-treatment) and how to access services, with a special focus on reaching underserved population groups.
- Make survivorship care guidelines and information available on the Partnership web site.
- Use the Partnership web site to provide timely notification of educational opportunities, conferences, and continuing education on survivorship.
- Partner with academic institutions and professional organizations to develop and offer educational opportunities for health care providers on topics such as survivorship issues and care guidelines.
- Disseminate information on the importance of psychological screenings to address depression and other factors that may impact quality of life.

Palliative

- Disseminate information on programs designed to help educate staff of hospitals and long-term care facilities in integrating palliative care into clinical services.
- Include palliative and hospice care curricula in programs at medical, nursing, counseling, and pastoral care schools.
- Provide links to information and resources for health care professionals on palliative and hospice care on the Cancer Partnership web site.
- Support partner efforts to educate public on benefits and availability of palliative and hospice care, including benefits of creating a living will and efforts targeted to broad spectrum of health care providers and diverse communities.
- Promote educational programs in colleges, health care facilities, and communities about best practices in pain management targeting health care professional audiences (physicians, nurses, administrators, social workers, pharmacists, substance abuse counselors).

Section II:
Connecticut Cancer Plan 2009 – 2013

C. Cross-Cutting Activities and Support

3. Advocacy

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Connecticut CANCER Partnership

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Advocacy Committee

Bryte Johnson, Co-chair	American Cancer Society
Andrew Salner, MD, Co-chair	Hartford Hospital
Nancy Cappello, PhD	Survivor
Susan Cooke, RN, CHPN	CT VNA Partners Hospice
Stephen Corman, MS	National Alliance of State Prostate Cancer Coalitions
Patricia Dow	American Cancer Society volunteer
Cheryl Harris Forbes	State of CT African American Affairs Commission
Maria Frassinelli-Sierra, MSW	Johnson Memorial Hospital
Margarita Gardner	Gardner's House
Dawn Holcombe, FACMPE, MBA, ACHE	Connecticut Oncology Association
Jerold R. Mande	Yale Cancer Center
Jennifer McGarry, MS	The Leukemia & Lymphoma Society CT Chapter
Teresa Money McLaughlin, RN, MSN, AOCN	St. Vincent's Medical Center
Marion Morra, MA, ScD	Morra Communications
Dorothy Murray	Jonas Consultants
Erin Nielsen	Relay for Life of Bethel
Phyllis Osterman, MS	Leukemia & Lymphoma Society CT Chapter
Sarah Shafir, MPH	American Cancer Society
Marilyn Shirley, RN, BA, MA	Family Member of Cancer Patient
Maureen Smith, RN, MS	Office of the Healthcare Advocate
Eric Triffin, BS, MPH	West Haven Health Dept.
Kathy Walsh, CTR	Manchester Memorial Hospital

3. Advocacy

Decisions and actions made by local, state, and national government leaders and legislatures influence the health of residents. Smoke-free public spaces and mandates for insurance coverage for evidenced- based early detection techniques and cancer genetic tests are examples of policies that can prevent or reduce the burden of cancer. Legislative action can improve access to therapy, support programs, and services for cancer patients and survivors. Connecticut has a long tradition of working together with organizations, agencies, coalitions, individuals, and others to enact legislation and implement policies to benefit the public's health. Advocacy at all levels is an important component for implementing **Connecticut's Cancer Plan 2009-2013**.

The Advocacy Committee of the Connecticut Cancer Partnership plays an active role in supporting accomplishment of the objectives. It coordinates advocacy efforts on behalf of the Connecticut Cancer Partnership. Working closely with the Partnership's Communications Committee, it informs membership, public officials, other cancer stakeholders, and the public of the goals of this coalition approach to comprehensive cancer care.

The Committee meets at least quarterly, and more frequently prior to and during the Connecticut Legislature's annual sessions. It is composed of individuals from partner organizations and volunteers who have given their effort, time, and expertise towards this effort. Some organizational members have been able to contribute the expertise of in-house lobbyists or internal advocacy experts to promote mutual goals.

The American Cancer Society's Connecticut Advocacy and Government Relations staff and their network of volunteers and lobbying experts, as well as their 501c (4) partner advocacy organization, the American Cancer Society Cancer Action Network, has helped to educate legislators, key decision makers, and government officials about how to achieve the plan objectives.

ROLE AND RESPONSIBILITIES: The Advocacy Committee's role is to monitor and promote legislation to forward the efforts of the Plan by:

- Assisting with seeking funding through legislative action to help support programs and projects across the continuum of the Plan, as approved and recommended each year by the Connecticut Cancer Partnership Board.
- Promoting legislation and governmental actions which help decrease the burden of cancer at the local and state level through increased awareness of state and local officials and the general public.
- Supporting the Board by providing and promoting position statements on specific issues related to cancer.

Advocacy Objectives

***OBJECTIVE 1. Support advocacy issues identified in the* Connecticut Cancer Plan 2009-2013.**

Strategies:

- Build cancer advocacy capacity through the recruitment of key decision-makers, such as legislators, state and local officials, insurers, lobbyists, pharmaceutical companies, corporations, state agencies, survivors, and families representing various geographic, ethnic and racial, and other populations to most effectively reflect the population and have the most impact.
- Collaborate with other organizations on advocacy issues of common needs and interest, e.g., American Cancer Society, Connecticut Hospital Association, Connecticut Public Health Association, American Diabetes Association, American Heart Association, American Lung Association, National Stroke Association, among others.
- Continue expansion of the grassroots advocacy effort, working with organizations already in the field.

OBJECTIVE 2. Identify, engage, and involve interested public/private companies, organizations, coalitions, and agencies in a collaborative fashion to garner ongoing support for the Plan.

Strategies:

- Work with partner organizations to support their efforts in obtaining funding from the Connecticut Legislature and from other sources for activities which are consistent with the objectives and strategies of the Plan.
- Develop and implement programs to educate members of the executive branch and legislators and their staff about important issues in the Plan.

OBJECTIVE 3. Maintain a tracking system and database regarding legislative activity to monitor and report progress on advocacy.

Strategies:

- Maintain a compilation and publish a report on enacted laws and policies related to cancer and Partnership accomplishments.
- Regularly report progress to Board and Partnership,
- Work with committees to ensure appropriate strategies and messaging.

Legislative Agenda

Prior to each legislative session, the Connecticut Cancer Partnership Board approves a legislative agenda, with attached funding requests for implementation. The legislative agenda is based on objectives derived from other committees' prioritization of needs. This prioritization process is described in Section III.

Priority Activities Related to Advocacy

The Advocacy Committee works collaboratively with all Partnership committees to develop Partnership positions and advocate for approaches that will promote implementation of Plan objectives including:

Prevention: Advocate for an increase in the state tobacco tax (including smokeless tobacco) to fund the state cancer and tobacco plans and to remove exemptions to the Connecticut smoking ban in public places.

Advocate for adoption of DPH's Healthy Eating and Active Living (HEAL) Plan as the standard for communities, state and local agencies, and institutions around nutrition, physical activity, and obesity issues.

Advocate for policy changes on food, nutrition, and physical activity education and interventions, through:

- nutrition labeling in chain restaurants
- community-based intervention research
- nutrition education curriculum to support healthier eating in schools and for at risk populations
- tax breaks for development of physical activity programs, such as building walking trails
- environmental interventions to reduce barriers and provide safe, affordable, and accessible opportunities for physical activity for adults and children in communities, schools, and workplaces
- Advocate for policies, such as trees in schoolyards and wearing of protective clothing and wraparound sunglasses with a UV absorption factor.

Early Detection: Advocate for policy change among insurers to cover screening costs, and reduce economic barriers to access breast cancer screening.

Treatment: Advocate for appropriate coverage for procedures for Medicaid clients; culturally appropriate care; insurance coverage for procedures/co-pays; and transportation to medical services; and identify oncology certification advocates in each of the local Oncology Nursing Society Connecticut chapters.

Survivorship: Inform and work with Managed Care Organizations, Health Maintenance Organizations, and state agencies (Department of Social Services, Behavioral Health Partnership, Department of Public Health) on the need to cover secondary prevention and wellness programs to foster healthy behaviors.

Palliative and Hospice Care: Advocate for an increased number of health insurance programs that provide coverage for pain and palliative/hospice services; and support advocacy efforts to improve quality of and access to pain and palliative/hospice services.

Section II:
Connecticut Cancer Plan 2009 – 2013

C. Cross-Cutting Activities and Support

4. Data, Surveillance, and Evaluation

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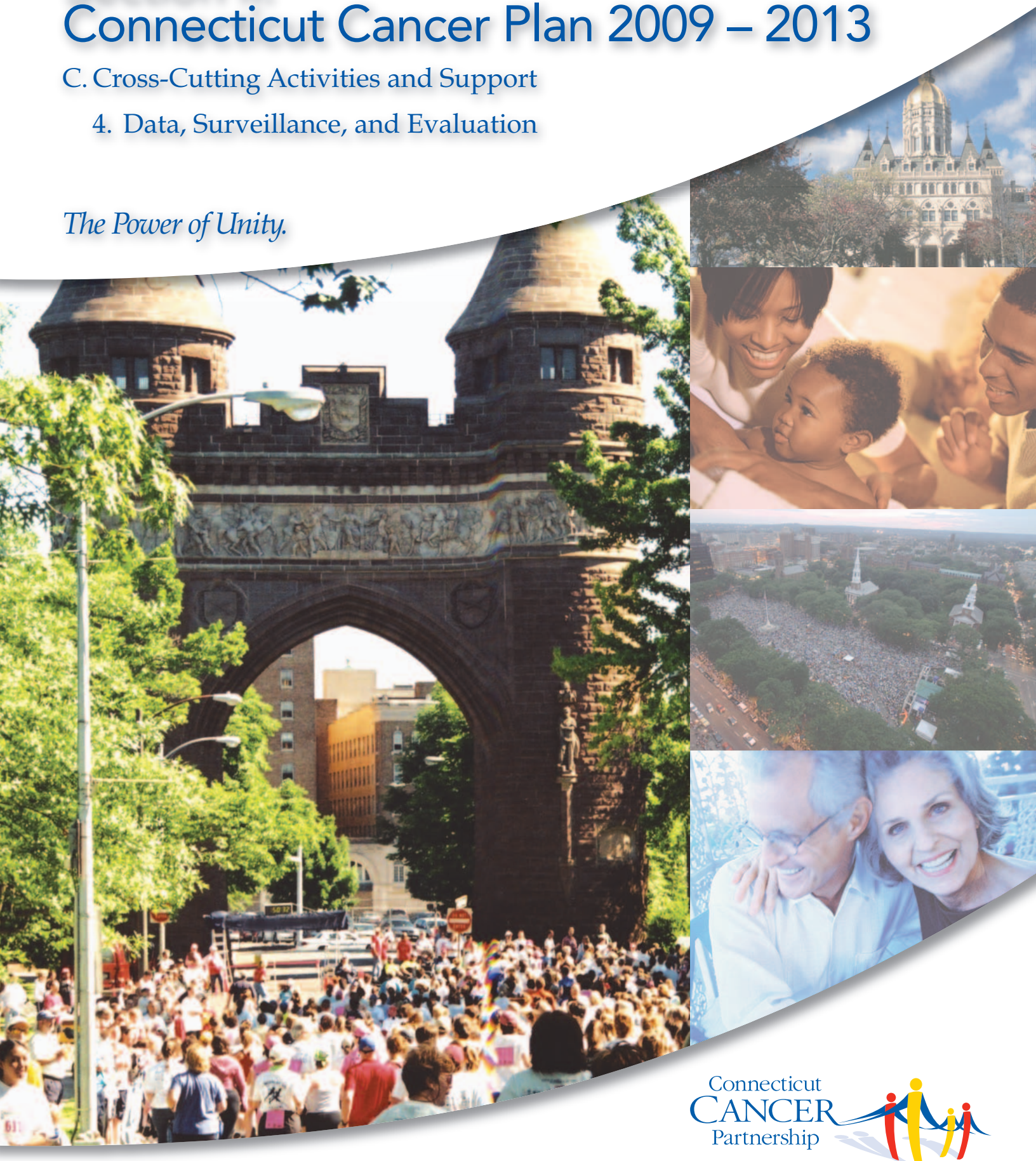

Connecticut CANCER Partnership

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Data, Surveillance, and Evaluation Committee

Brenda Cartmel, PhD, DSE Co-chair	Yale University School of Medicine
Lou Gonsalves, PhD, DSE Co-chair	Connecticut Tumor Registry
Keith Bellizzi, PhD	University of Connecticut
Carol E. Bower	CT Department of Public Health
Donna Connery	VA Connecticut Health System
Mary Lou Fleissner, MS, DrPH	CT Department of Public Health
Terri Foster, MS, MPH	Public Health Consultant
David Gregorio, PhD, Past Co-chair	UConn Health Center
Dawn Holcombe, FACMPE, MBA, ACHE	Cancer Clinics of Excellence
William D. Seislove, MBA, MPH	Pfizer, Inc.
Helen Swede, PhD	UConn School of Medicine
Teresita Vega, C.T.R.	Yale- New Haven Hospital
Mary Wallace, BS, MS	American Cancer Society volunteer
Kathy Walsh, CTR	Manchester Memorial Hospital
Nina S. Wampler, DSc, MPH	Mashantucket Pequot Tribal Nation
Thomas Wegrzyn, MPH	Chesprocott Health District
Susan Wright, BS, MBA	Hartford Hospital
Susan Yurasevecz, MS	CT Department of Public Health

4. Data, Surveillance, and Evaluation

Role and Responsibilities

ROLE: The role of the Data, Surveillance, and Evaluation Committee (DSE) is to support the surveillance and evaluation efforts of the Connecticut Cancer Partnership by:

- Helping its committees to achieve consistency in assessment, monitoring, and evaluation of activities related to the objectives of the **Connecticut Cancer Plan 2009-2013**.
- Increasing the use and timely dissemination of available information regarding cancer burden across the continuum of cancer care.

RESPONSIBILITIES: The Data, Surveillance, and Evaluation Committee may support the work of the Partnership committees through the following:

1. ***Coordination/Monitoring***
   - Identify and monitor emerging issues related to cancer and the data needs of the committees.
   - Advise the committees on new data / surveillance that may impact the work of the committees.
   - Identify opportunities for collaboration among committees to minimize duplication of efforts and/or enhance the analytic value of the information collected.
2. ***Technical Assistance***
   - Advise committees on setting baselines, key indicators of success, and measurable outcomes.
   - Identify existing cancer-related data sources, characteristics, and contact information for the responsible organization.
   - Review data-related materials developed on behalf of the Partnership (e.g., data requests, survey instruments, data reports).
3. ***Education***
   - Work with committees to assess needs related to surveillance and evaluation.
   - Identify/provide opportunities for education/training on surveillance and evaluation.
   - Provide guidance on methods of data collection, analysis, and interpretation.

Ongoing Strategies of DSE:

- Use Partnership web site to publicize cancer burden across the cancer continuum.
- Identify opportunities for sharing data from different agencies.
- Advise the Connecticut Cancer Partnership regarding:
  - methods of setting baselines and targets
  - methods for measuring progress on objectives
  - data collection tools, data collection methods, and analysis of data when requested
  - evaluating any projects funded via the Connecticut Cancer Plan 2009-2013
  - implementation activities related to the objectives of the Plan.
- Enhance committee capacity through:
  - member recruitment from among state and regional DSE experts
  - presentations from partners on data sources and data needs
  - collaborations with state partners to accomplish priority projects
  - development of a cancer DSE "think-tank" for problem-solving and brain-storming.

Section III: Implementation

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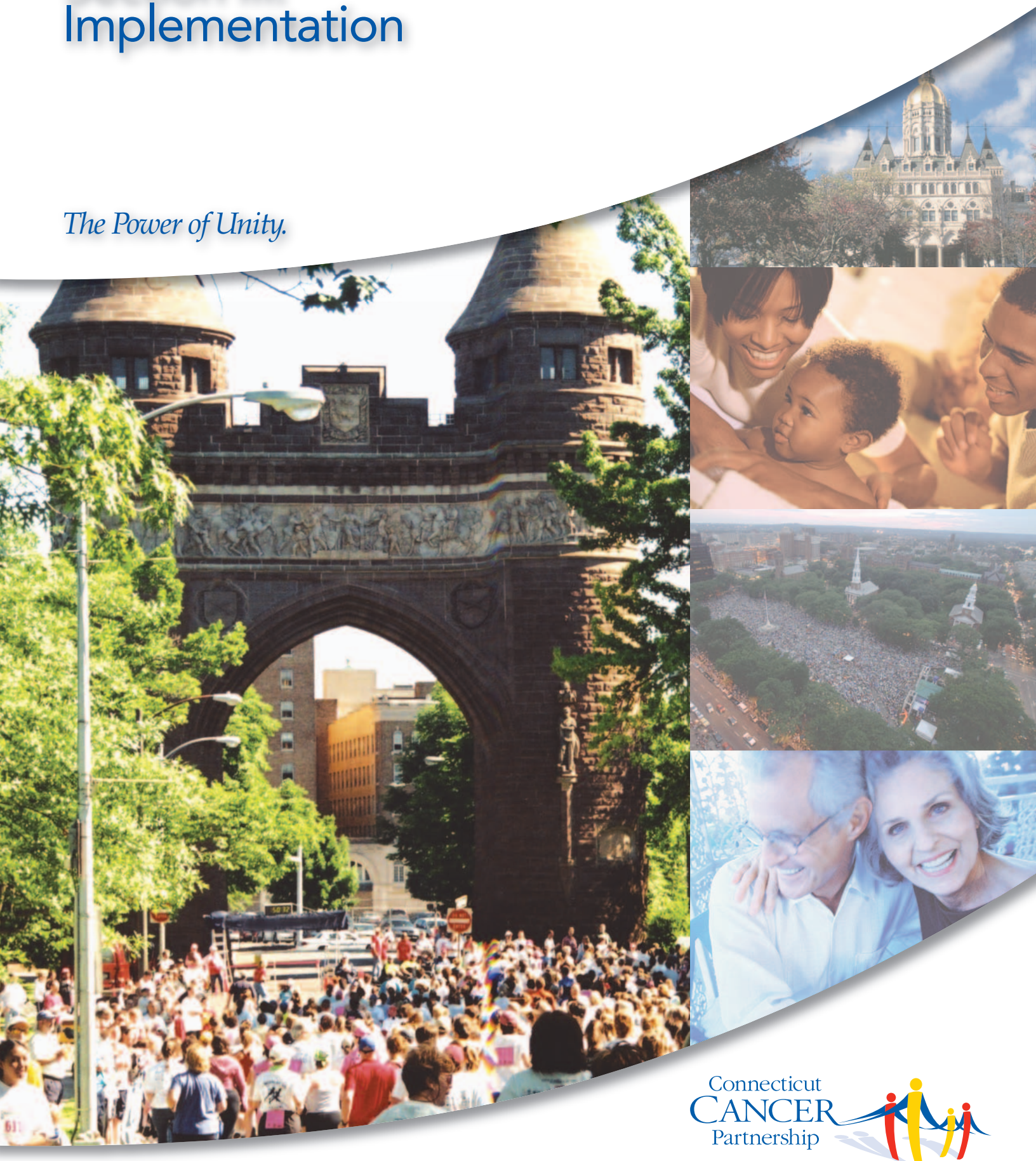

Connecticut CANCER Partnership

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Section III. Implementation

The Connecticut Cancer Partnership engages in a process to set overall Plan priorities and annual priorities. This process serves to educate and engage members and to ensure that Partners are aware of the activities agreed upon across the continuum. It is acknowledged that all activities to reduce the burden of cancer are important, but it is also crucial to recognize to best leverage scarce health care funding, it is important to develop a message shared by the 150 Connecticut Cancer Partnership member organizations. The **Connecticut Cancer Plan 2009-2013** embodies the fact that these organizations contribute their expertise, consider and weigh out possibly conflicting priorities, and then are able to speak with one voice to influence the direction of comprehensive cancer control in Connecticut.

The work of the Partnership enhances the overall capacity of the health care systems in the state and maximizes outcomes in Connecticut by building on existing programs in a coordinated, rational, and collaborative way. The synergy generated by this approach is the driving force for comprehensive cancer control in Connecticut.

A. Tracking Plan Progress

The Partnership uses the table located in Appendix D to track progress toward meeting the goals and objectives of the Plan. It provides measures, baselines, targets, and data sources for the objectives listed under each of the continuum committees goals.

Data used in the tool are from date systems including cancer diagnosis, treatment, and mortality that are population-inclusive, containing information for all occurrences through mandated reporting processes that comprise our vital records, tumor registry, and hospitalization reporting systems (see Connecticut's Data System in Section I-B); and data systems assessing behavioral risk for cancers that are population-based and include data obtained from representative samples of Connecticut residents.

Baseline data provided includes the most recent year in which values have been collected from the data source cited. Most data are given in percentages, with the exceptions where noted. (Length of stay is given in days, for example.) Updates will be made to the tracking tool when these data systems release survey results.

Although this Plan reflects national goals, which are pegged to five or ten-year intervals (see Section I-B in Connecticut's approach), the Plan period ends in 2013 which is therefore given at the target date.

It is also important to systematically capture activities related to implementating the strategies under each objective. This process will be established as a regular part of the annual work plan for each committee. Information collected will be updated and annually added to the web site.

See Appendix D for Tracking Table.

B. Priority Recommendations: Year One

The process of identifying first round priorities requires a belief that the commitment to comprehensive cancer control will be ongoing and that future commitments of resources will build on the success and lessons learned from the preceding years' focus. It assumes that there will be opportunities in future years to invest in the process of rationally allocating resources to the shared vision of a reduction of the burden of cancer in Connecticut.

Above and beyond the work of directing funding is the commitment to the concept of selecting priority objectives to apply the synergy of all resources of the disparate organizational members to work together for a common cause. In times of severe economic constraints, it is vital to remember that a great deal of work can be accomplished with limited resources if these resources are used in the most cost-effective and coordinated way possible with the elimination of duplications, the pooling and sharing of appropriate skills, expertise, and assets, the recognition of the greatest needs, and the use of best practices.

A dual set of priority setting exercises was used during the 2008 annual meeting to serve as a basis for implementation planning. Participants reached consensus on one objective from each continuum area to be implemented first. Taking this sampling of opinion into consideration, each committee then continued to refine their objectives, strategies, and action plans in the development of a first year work plan. The priorities selected through the annual meeting process were seen as representing the first year of the five-year plan. They were:

- Increase the proportion of adults (≥ 18 years) and youths (< 18 years) who make healthy food choices, engage in regular physical activity, and maintain a healthy bodily weight.
- Increase screening utilization among underserved minority groups.
- Develop a network of partners to facilitate availability, access to, and participation in clinical trials.
- Work with appropriate agencies to (e.g., ACS, Yale) increase the proportion of cancer survivors and cancer care providers who access and use survivor support services.
- Increase the number of health care professionals (physicians, nurses, social workers, and spiritual counselors) who are knowledgeable about and/or certified in palliative and hospice care.

A legislative agenda to address Year One priorities was developed for 2009 based on these first year implementation activities. Some activities necessitate that funding be appropriated and a legislative agenda was developed that provided a budget to support these initiatives. Other priorities require the development of and advocacy for policies to support improvements areas, such as access to care, insurance coverage, standards, and practices.

Each year, committees will meet to review the objectives that were selected in the five-year planning process, to review progress made in the previous year, and to select the priority initiatives for that year's implementation focus and for the legislative agenda. The priority initiatives selected for Year One of this Plan are likely to be carried forward for further development.

C. Infrastructure and Sustainability

The Partnership has been fortunate to work in collaboration with the Connecticut Department of Public Health (DPH) and other key organizations to establish a comprehensive cancer control infrastructure in Connecticut, which depends not only on collaboration and partnering, but also on sustainable support and workforce development. Many of the objectives outlined in this Plan focus on seeking funding to support specific activities or address policy changes that may impact the future of our residents. Sustaining an initiative as bold and comprehensive as the Partnership without ongoing funding is a challenge. One of the paramount values of the Connecticut Cancer Partnership and its relationship with the Connecticut Department of Public Health is the ability to leverage state resources to enhance all cancer-related programs that function every day.

To work toward a strong sustainable infrastructure, the Partnership will employ the following approach:

Strategies:

- Focus on sustainability through strategic planning and management of implementation activities.
- Encourage sustainability through evaluation by treating it as an outcome that is tracked. This will allow for opportunities to make midcourse corrections since sustainability requires more than annual funding.[1]
- Work collaboratively with the Connecticut Department of Public Health to

  1) ensure contracts for cancer programs align with the implementation activities and/or priorities of the **Connecticut Cancer Plan 2009-2013**,

  2) align infrastructure needs and strategies within the DPH with those provided contractually to the Partnership Board and committees, and

  3) investigate all potential public and private funding sources to assure adequate and appropriate resourcing of comprehensive cancer programs.
- Continue to integrate programs and activities with existing organizations.
- Develop annual reporting mechanism to measure progress made toward goals
- Work with C- Change to address shortages in the cancer workforce, e.g., adopt their cancer competency standards and tools for strengthening knowledge and skills of non-oncology health professionals that are piloted and proven to quantitatively improve the knowledge, skills, and attitudes of participants as well as qualitatively benefiting the course faculty, institution, and community.[2]
- Align its efforts and implementation activities with the 10 Essentials of Public Health to assure a competent public and personal health care workforce.[3]
- Monitor payments made to the state as settlements of court actions, (General Statutes Chapter 368a, Sec. 19a-73b.) which according to state statute shall be deposited in an account designated for use by the DPH for comprehensive cancer initiatives.

The past three years of comprehensive cancer control in Connecticut have demonstrated the value of coordination. This bold new Plan requires strong leadership, continued commitment of partner agencies, and access to funding. By building on a solid record of accomplishment, data-driven strategies, and the dedication of its members the Connecticut Cancer Partnership will continue to strive to achieve its goal to reduce the burden of cancer and improve the quality of life of people living with cancer in Connecticut.

1 Wiess H, Coffman J, Bohan-Baker M. *Evaluation's Role in Supporting Initiative Sustainability*. Cambridge, MA: Harvard Family Research Project. December 2002.

2 Tom Kean <communications@c-changetogether.org) Connecticut Cancer Coalition

3 Center for Disease Control and Prevention. National Public Health Performance Standards Program. 10 Essentials of Public Health: Assure a Competent Public and Personal Health Care Workforce. 1994. http://www.cdc.gov/od/ocphp/nphpsp/EssentialPublicHealthServices.htm#es8.

Appendices

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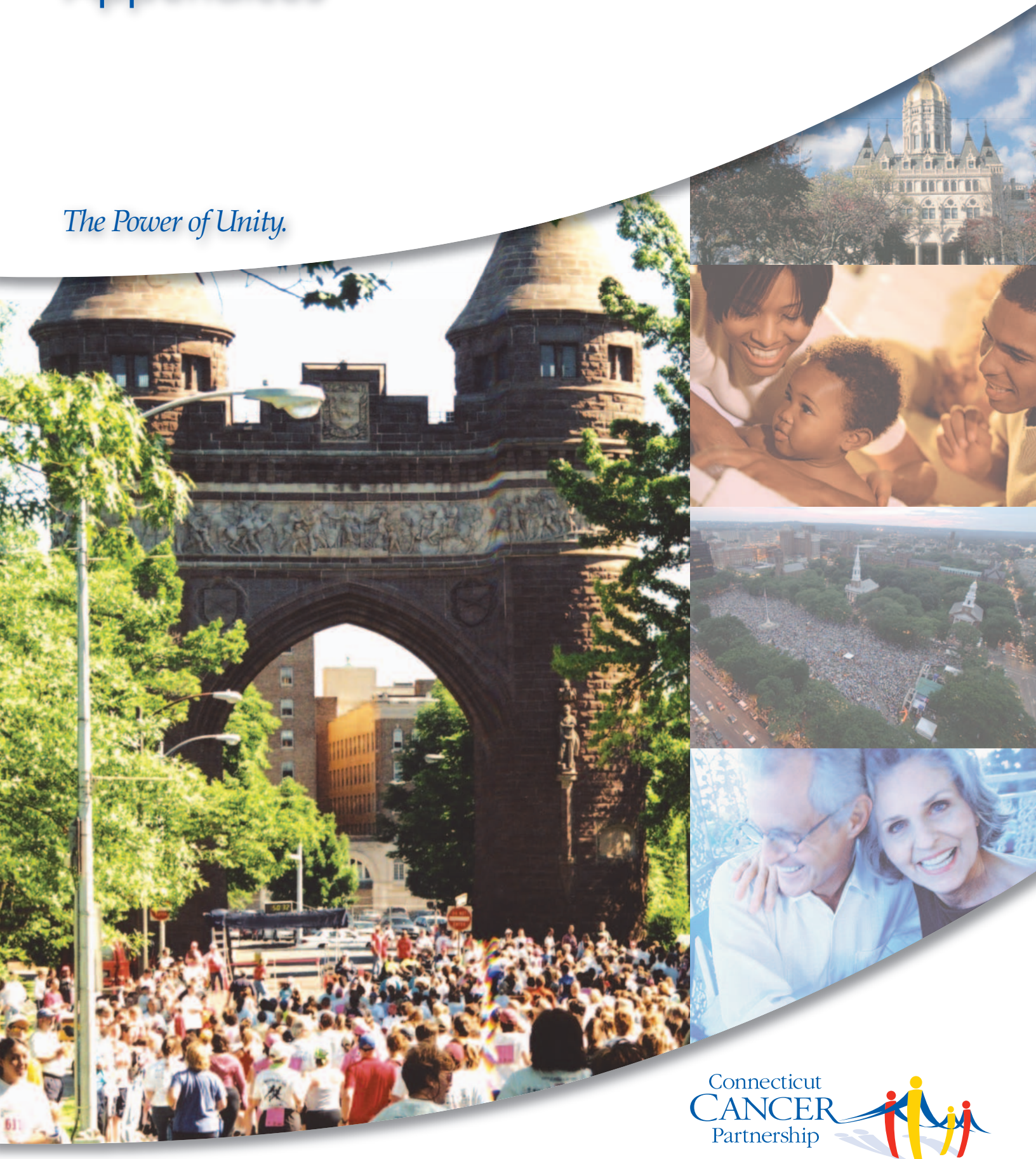

Connecticut CANCER Partnership

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Appendices And Resources

Appendix A. Acronyms

ACIP	Advisory Committee on Immunization Practice
ACoS CoC	American College of Surgeons Commission on Cancer
ACS	American Cancer Society
ADA	American Diabetes Association
AHA	American Heart Association
ALA	American Lung Association
AMA	American Medical Association
BRFSS	Behavioral Risk Factor Surveillance System
CHCACT	Community Health Care Association of Connecticut
CTBCCEDP	Connecticut Breast and Cervical Cancer Early Detection Program
CDC	Centers for Disease Control and Prevention
CHIME	Connecticut Health Information Management Exchange
CIS	Cancer Information Service
CPHA	Connecticut Public Health Association
CTAHA	Connecticut Chapter of the American Heart Association
DMHAS	Department of Mental Health and Addiction Services
DPH	Department of Public Health
DSE	Data, Surveillance and Evaluation
EBV	Epstein-Barr Virus
EDC	Endocrine disrupting compounds
EIP	Emerging Infections Program
EPA	U.S. Environmental Protection Agency
EPHT	Environmental Public Health Tracking National Program
ETS	Environmental Tobacco Smoke
FDA	Federal Drug Administration
GHS	Global Health and Safety
HEAL	Healthy Eating and Active Living
HHS	U.S. Department of Health and Human Services
HPV	Human papillomavirus
HP2010	Healthy People 2010
HRSA	U.S. Health Resources and Services Administration (a division of HHS)
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
KSHV	Kaposi's sarcoma associated herpes virus
IARC	International Agency for Research on Cancer
IOM	Institute of Medicine
IRB	Institutional Review Board
MADD	Mothers Against Drunk Driving
MCO	Managed Care Organization
MMWR	Mortality Morbidity Weekly Review
NAACCR	North American Association of Central Cancer Registries
NCCAM	National Center for Complementary and Alternative Medicine
NCCN	National Comprehensive Cancer Network
NCI	National Cancer Institute
NDC	National Dialogue on Cancer
NHO	National Hospice Organization
NIH	National Institutes of Health
PANT	Physical Activity, Nutrition, and Tobacco
PSA	Prostate-specific antigen
RAC	Regional Action Council
SDE	State Department of Education
SEER	Surveillance, Epidemiology, and End Results Program
SES	Socioeconomic Status
SPF	Sun protective factor
STD	Sexually Transmitted Disease
TBD	To be determined
VOC	Volatile organic compounds
VFC	Vaccines for Children
WHO	World Health Organization
WIC	Women, Infants & Children Special Supplemental Nutrition Program
YBRS	Youth Behavior Risk Survey
YRBSS	Youth Behavior Risk Surveillance System

Appendix B.1. Ten Essentials of Public Health

According to the Center for Disease Control and Prevention's National Public Health Performance Standards Program (NPHPSP), there are ten (10) essential public health activities that should be undertaken in all communities. The Core Public Health Functions Steering Committee developed the framework for the Essential Services in 1994. This steering committee included representatives from US Public Health Service agencies and other major public health organizations. These 10 Essential Services provide a working definition of public health and a guiding framework for the responsibilities of local public health systems.

1. **Monitor** health status to identify and solve community health problems.
2. **Diagnose** and **investigate** health problems and health hazards in the community.
3. **Inform**, **educate**, and **empower** people about health issues.
4. **Mobilize** community partnerships and action to identify and solve health problems.
5. **Develop policies and plans** that support individual and community health efforts.
6. **Enforce** laws and regulations that protect health and ensure safety.
7. **Link** people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. **Assure** competent public and personal health care workforce.
9. **Evaluate** effectiveness, accessibility, and quality of personal and population-based health services.
10. **Research** for new insights and innovative solutions to health problems.

Source: CDC, http://www.cdc.gov/od/ocphp/nphpsp/essentialphservices.htm.

Appendix B.2. National Benchmarks

HEALTHY PEOPLE 2010 FOCUS AREA 3: CANCER

The HP2010 Goal and Objectives below reflect updates made in the HP2010 MidCourse Review

GOAL: *Reduce the number of new cancer cases as well as the illness, disability, and death caused by cancer.*

3-1. Reduce the overall cancer death rate.

Target: 158.6[1] deaths per 100,000 population.

Baseline: 200.8[2] cancer deaths per 100,000 population occurred in 1992 (age adjusted to the year 2000 standard population).

Target setting method: 21 percent improvement.

Data source: National Vital Statistics System (NVSS), CDC, NCHS.

1 Target revised from 159.9 because of baseline revision after November 2000 publication.

2 Baseline and baseline year revised from 202.4 and 1998 after November 2000 publication.

3-2. Reduce the lung cancer death rate.

Target: 43.3[1] deaths per 100,000 population.

Baseline: 55.5[2] lung cancer deaths per 100,000 population occurred in 1992 (age adjusted to the year 2000 standard population).

Target setting method: 22 percent improvement.

Data source: National Vital Statistics System (NVSS), CDC, NCHS.

1 Target revised from 44.9 because of baseline revision after November 2000 publication.

2 Baseline and baseline year revised from 57.6 and 1998 after November 2000 publication.

3-3. Reduce the breast cancer death rate.

Target: 21.3[1] deaths per 100,000 females.

Baseline: 26.6[2] breast cancer deaths per 100,000 females occurred in 1992 (age adjusted to the year 2000 standard population).

Target setting method: 20 percent improvement.

Data source: National Vital Statistics System (NVSS), CDC, NCHS.

1 Target revised from 22.3 because of baseline revision after November 2000 publication.

2 Baseline and baseline year revised from 27.9 and 1998 after November 2000 publication.

3-4. Reduce the death rate from cancer of the uterine cervix.

Target: 2.0[1] deaths per 100,000 females.

Baseline: 2.8[2] cervical cancer deaths per 100,000 females occurred in 1992 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Vital Statistics System (NVSS), CDC, NCHS.

1 Target revised from 2.0 because of baseline revision after November 2000 publication.

2 Baseline and baseline year revised from 3.0 and 1998 after November 2000 publication.

3-5. Reduce the colorectal cancer death rate.

Target: 13.7[1] deaths per 100,000 population.

Baseline: 20.9[2] colorectal cancer deaths per 100,000 population occurred in 1992 (age adjusted to the year 2000 standard population).

Target setting method: 34 percent improvement.

Data source: National Vital Statistics System (NVSS), CDC, NCHS.

1 Target revised from 13.9 because of baseline revision after November 2000 publication.

2 Baseline and baseline year revised from 21.2 and 1998 after November 2000 publication.

3-6. Reduce the oropharyngeal cancer death rate.

Target: 2.4[1] deaths per 100,000 population.

Baseline: 2.7[2] oropharyngeal cancer deaths per 100,000 population occurred in 19992 (age adjusted to the year 2000 standard population).

Target setting method: 10 percent improvement.

Data source: National Vital Statistics System (NVSS), CDC, NCHS.

1 Target revised from 2.7 because of baseline revision after November 2000 publication.

2 Baseline and baseline year revised from 3.0 and 1998 after November 2000 publication.

3-7. Reduce the prostate cancer death rate.

Target: 28.2[1] deaths per 100,000 males.

Baseline: 31.3[2] prostate cancer deaths per 100,000 males occurred in 19992 (age adjusted to the year 2000 standard population).

Target setting method: 10 percent improvement.

Data source: National Vital Statistics System (NVSS), CDC, NCHS.

1 Target revised from 28.8 because of baseline revision after November 2000 publication.

2 Baseline and baseline year revised from 32.0 and 1998 after November 2000 publication.

3-8. Reduce the rate of melanoma cancer deaths.

Target: 2.3[1] deaths per 100,000 population.

Baseline: 2.6[2] melanoma cancer deaths per 100,000 population occurred in 19992 (age adjusted to the year 2000 standard population).

Target setting method: 11 percent improvement.

Data source: National Vital Statistics System (NVSS), CDC, NCHS.

1 Target revised from 2.5 because of baseline revision after November 2000 publication.

2 Baseline and baseline year revised from 2.8 and 1998 after November 2000 publication.

3-9. 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.

3-9a. (Developmental) Increase the proportion of adolescents in grades 9 through 12 who follow protective measures that may reduce the risk of skin cancer.

Potential data source: Youth Risk Behavior Surveillance System (YRBSS), CDC, NCCDPHP.

3-9b. Increase the proportion of adults aged 18 years and older who follow protective measures that may reduce the risk of skin cancer.

Target:85[1] percent of adults aged 18 years and older use at least one of the identified protective measures.

Baseline: 59[2] percent of adults aged 18 years and older regularly used at least one protective measure in 20002 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS. Data on artificial ultraviolet light source are developmental.

1 Target revised from 75 percent because of baseline revision after November 2000 publication.

2 Baseline and baseline year revised from 47 percent and 1998 after November 2000 publication.

3-10. Increase the proportion of physicians and dentists who counsel their at-risk patients about tobacco use cessation, physical activity, and cancer screening.

Target and baseline:

Objective	Increase in Counseling About Tobacco Use Cessation, Physical Activity, and Cancer Screening	1988 Baseline* (unless noted)	2010 Target
		Percent	
3-10a.	Internists who counsel about smoking cessation	50	85
3-10b.	Family physicians who counsel about smoking cessation	43	85
3-10c.	Dentists who counsel about smoking cessation	59 (1997)	85
3-10d.	Primary care providers who counsel about blood stool tests	56	85
3-10e.	Primary care providers who counsel about proctoscopic examinations	23	85
3-10f.	Primary care providers who counsel about mammograms	37	85
3-10g.	Primary care providers who counsel about Pap tests	55	85
3-10h.	Primary care providers who counsel about physical activity	12 (1998)[1]	85

Target setting method: Better than the best.

Data sources: Survey of Physicians' Attitudes and Practices in Early Cancer Detection, NIH, NCI; National Ambulatory Medical Care Survey (NAMCS), CDC, NCHS; Survey of Current Issues in Dentistry, American Dental Association.

1 Baseline and baseline year revised from 22 percent and 1995 after November 2000 publication.

3-11. Increase the proportion of women who receive a Pap test.

Target and baseline:

Objective	Increase in Pap Testing	1998 Baseline*	2010 Target
		Percent	
3-11a.	Women aged 18 years and older who have ever received a Pap test	92	97
3-11b.	Women aged 18 years and older who received a Pap test within the preceding 3 Years	79	90

*Age adjusted to the year 2000 standard population. Includes women without a uterine cervix.

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

3-12. Increase the proportion of adults who receive a colorectal cancer screening examination.

Target and baseline:

Objective	Increase in Colorectal Cancer Screening	2000 Baseline* (unless noted)	2010 Target
		Percent	
3-12a.	Adults aged 50 years and older who have received a fecal occult blood test (FOBT) within the preceding 2 years	24[1]	33[2]
3-12b.	Adults aged 50 years and older who have ever received a sigmoidoscopy	37 (1998)	50

* Age adjusted to the year 2000 standard population.

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

1 Baseline and baseline year revised from 35 and 1998 after November 2000 publication

2 Target revised from 50 because of baseline revision after November 2000 publication

3-13. Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding 2 years.

Target: 70 percent.

Baseline: 67 percent of women aged 40 years and older received a mammogram within the preceding 2 years in 1998 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

3-14. Increase the number of States that have a statewide population-based cancer registry that captures case information on at least 95 percent of the expected number of reportable cancers.

Target: 45.

Baseline: 30 States had a statewide population-based cancer registry that captured case information on at least 95 percent of the expected number of reportable cancers in 1999.

Target setting method: 50 percent improvement.

Data source: National Program of Cancer Registries, CDC.

3-15. Increase the proportion of cancer survivors who are living 5 years or longer after diagnosis.

Target: 70 percent.

Baseline: 59 percent of persons with invasive cancer of any type were living 5 years or longer after diagnosis in 1989–95.

Target setting method: 19 percent improvement.

Data source: Surveillance, Epidemiology, and End Results (SEER) Program, NIH, NCI.

American Cancer Society Challenge Goals, Principles & Nationwide Objectives

2015 Goals

- *50% reduction in age-adjusted cancer mortality rates by the Year 2015.*
- *25% reduction in age-adjusted cancer incidence rates by the Year 2015.*
- *Measurable improvement in the quality of life (physical, psychological, social, and spiritual) from the time of diagnosis and for the balance of life of all cancer survivors by the Year 2015.*

Principles

Information

By 2015 state of the art information on issues related to incidence, mortality, risk factors, treatment, survivorship, and quality of life (physical, social, psychological, and spiritual) will be available and accessible through all appropriate channels to all people.

Measurement

Monitoring systems that track relevant incidence, mortality, risk factors and screening prevalence, and quality of life dimensions should be available nationwide.

By 2008, all states will have cancer registries that meet NAACR silver or gold certification standards.

Disparities

By 2015, eliminate the disparities in cancer burdens among population groups by reducing age-adjusted cancer incidence and mortality rates and improving quality of life in the poor and underserved to the population average.

Collaboration

Efforts should be increased at all levels of the American Cancer Society for working with other organizations and agencies to achieve our common cancer control goals and objectives.

Access To Quality Treatment

By 2015, assure that all people diagnosed with cancer have access to appropriate, quality treatment and follow-up, achieving 0% disparities in treatment outcomes.

American Cancer Society Nationwide Objectives

COLORECTAL CANCER

By 2015:

Incidence: By 2015, reduce the age-adjusted incidence rate of colorectal cancer by 40%.

Mortality: By 2015, reduce the age-adjusted mortality rate of colorectal cancer by 50%.

Early Detection: By 2015, increase to 75% the proportion of people aged 50 and older who have colorectal screening consistent with American Cancer Society guidelines.

BREAST CANCER

By 2015:

Incidence: By 2015, reduce the age-adjusted incidence rate of breast cancer by 15%.

Mortality: By 2015, reduce the age-adjusted mortality rate of breast cancer by 50%.

By 2010:

Early Detection: By 2010, increase to 90% the proportion of women aged 40 and older who have breast screening consistent with American Cancer Society guidelines.

LUNG CANCER/ ADULT & YOUTH TOBACCO USE

By 2015:

Incidence: By 2015, reduce the age-adjusted incidence rate of lung cancer by 45%.

Mortality: By 2015, reduce the age-adjusted mortality rate of lung cancer by 50%.

Adult Tobacco Use: By 2015, reduce to 12% the proportion of adults (18 and older) who use tobacco products.

Youth Tobacco Use: By 2015, reduce to 10% the proportion of adults (under 18) who use tobacco products.

Youth Smokeless Tobacco Use: By 2015, reduce to 1% the proportion of high school students (younger that 18) who are current users of smokeless tobacco.

By 2010:

Adult Tobacco Use: By 2010, reduce to 18.5% the proportion of adults (18 and older) who use tobacco products.

Adult Tobacco Use: By 2010, reduce to 25% from 2000 baseline prevalence rate the proportion of low SES adults (18 and older) who use tobacco products.

Youth Tobacco Use: By 2010, reduce to 15% or less the frequent use of cigarettes by young people (under 18).

PROSTATE CANCER

By 2015:

Incidence: By 2015, reduce the age-adjusted incidence rate of prostate cancer by 15%.

Mortality: By 2015, reduce the age-adjusted mortality rate of prostate cancer by 50%.

Early Detection: By 2015, increase to 90% the proportion of men who follow age-appropriate American Cancer Society detection guidelines for prostate cancer.

By 2010:

Mortality: By 2015, reduce the age-adjusted mortality rate of prostate cancer by 40%.

Behavior Change: By 2010, increase the percentage of men who have been offered age-appropriate PSA screening to 75%.

NUTRITION & PHYSICAL ACTIVITY

By 2015:

Overweight/Obesity: By 2015, the trend of increasing prevalence of overweight and obesity among US adults and youth will have been reversed and by 2015, the prevalence of overweight and obesity will be no higher than in 2005.

Behavior Change: By 2015, increase to 70% the proportion of adults and youth who follow American Cancer Society guidelines with respect to the appropriate level of physical activity, as published in the *American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention*.

Behavior Change: By 2015, increase to 75% the proportion of persons who follow American Cancer Society guidelines with respect to consumption of fruits and vegetables as published in the *American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention*.

By 2010:

Overweight/Obesity: By 2010, the increasing trends in overweight and obesity for both US adults and youth will have stopped.

Behavior Change: By 2010, increase to 60% the proportion of adults and youth who follow American Cancer Society guidelines with respect to the appropriate level of physical activity, as published in the *American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention*.

Behavior Change: By 2010, increase to 45% the proportion of persons who follow American Cancer Society guidelines with respect to consumption of fruits and vegetables as published in the *American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention*.

SKIN CANCER

By 2015:

Behavior Change: By 2015, increase to 75% the proportion of people of all ages who use at least two or more of the following protective measures which may reduce the risk of skin cancer: avoid the sun between 10a.m. and 4p.m., wear sun-protective clothing when exposed to sunlight, use sunscreen with an SPF 15 or higher, and avoid artificial sources of ultraviolet light (e.g. sun lamps, tanning booths).

COMPREHENSIVE SCHOOL HEALTH EDUCATION

By 2015:

CSHE: By 2015, increase to 50% the proportion of school districts that provide a comprehensive coordinated school health education program.

By 2010:

CSHE: By 2005, 35% of school districts will provide CSHE.

School Health Councils: By 2010, 75% of school districts will have active school health councils.

School Health Coordinators: By 2010, 50% of school districts will have trained school coordinators.

QUALITY OF LIFE

By 2015:

Access to Care: By 2015, the proportion of individuals without any type of health care coverage will decrease to 0%.

Pain Control: By 2015, all 50 states and the District of Columbia will have received a grade of B or higher on the Pain Policy Report Card, and 10 states will have received a grade of A.

Physical Appearance: By 2015, the negative impact of cancer on physical appearance and body image will be substantially reduced in 75% of those affected cancer survivors.

Measurement: By 2015, there will be national surveillance systems to monitor quality of life for those affected by cancer.

Source: American Cancer Society Strategic Plan Progress Report, 2007 pp. 7-12

Due to the amount of information available and size of report, this information can be viewed at:

ACS's *2007 Strategic Plan Progress Report*
http://www.cancer.org/docroot/AA/content/AA_1_2_2007_Strategic_Plan_Progress_Rept.asp

NCI's *Accelerating Successes Against Cancer*, September 2006
http://cancercenters.cancer.gov/documents/Accelerating_Successes_Against_Cancer_report.pdf

IOM's *Assessing the Quality of Cancer Care*, April 2005
http://www.iom.edu/CMS/3798/16410/26263.aspx

Appendix B.3. A Chronic Care Model Approach

The Connecticut Cancer Partnership supports the use of the elements of the Chronic Care Model as an integrating theme, wherever possible. This aligns with the approach increasingly required by the Centers for Disease Control in the support of demonstration programs in the area of cancer and other diseases. This proposed system allows for comprehensive care of Connecticut residents living with chronic diseases. Recent analysis of the CCM "suggest that redesigning care using the CCM leads to improved patient care and better health outcomes." (See http://content.healthaffairs.org)

The following are examples of the integration of this approach with comprehensive cancer control improvement activities.

Community

Form alliances with partners to promote an environment where activities are aligned for the most effective approach.

Decision Support

- **Establish Communication Protocols:** Regular communication among patients, providers, and payers will help to eliminate some of the misunderstanding that can impede good care.
- **Productive Interactions among Patients and Provider Teams:** Communication should be regular and useful. Providers should communicate in ways that are easy for patients to understand, and patients should use time with providers to ask questions and make certain their providers understand their needs.

Self Management

Empower cancer patients, survivors, and caregivers with information to best manage their care. Address barriers and enhance facilitators of access.

Delivery System Design

- **Regular Assessment of Patients:** Patients should receive laboratory testing and face-to-face meetings with providers according to standardized protocols.
- **Development of Treatment Plans** that consider cultural, linguistic, psychosocial, and physiological needs of the patient.
- **Systematic Application of Proven Therapies:** Providers integrate accepted best practices into their clinical practices.
- **Sustained Follow-up for Treatment Adherence:** Patient compliance with disease management protocols is one of the best ways to reduce costs and improve outcomes.
- **User-Friendly Delivery System:** Patients are more likely to be compliant with their treatment programs when they are treated with respect, and when accessing needed services is easy.
- **Scheduling of Appointments:** Managed care organizations and providers communicate to allow scheduling of all related appointments in one day. The current fragmentation of services is a barrier to many seeking care.

Clinical Information Systems

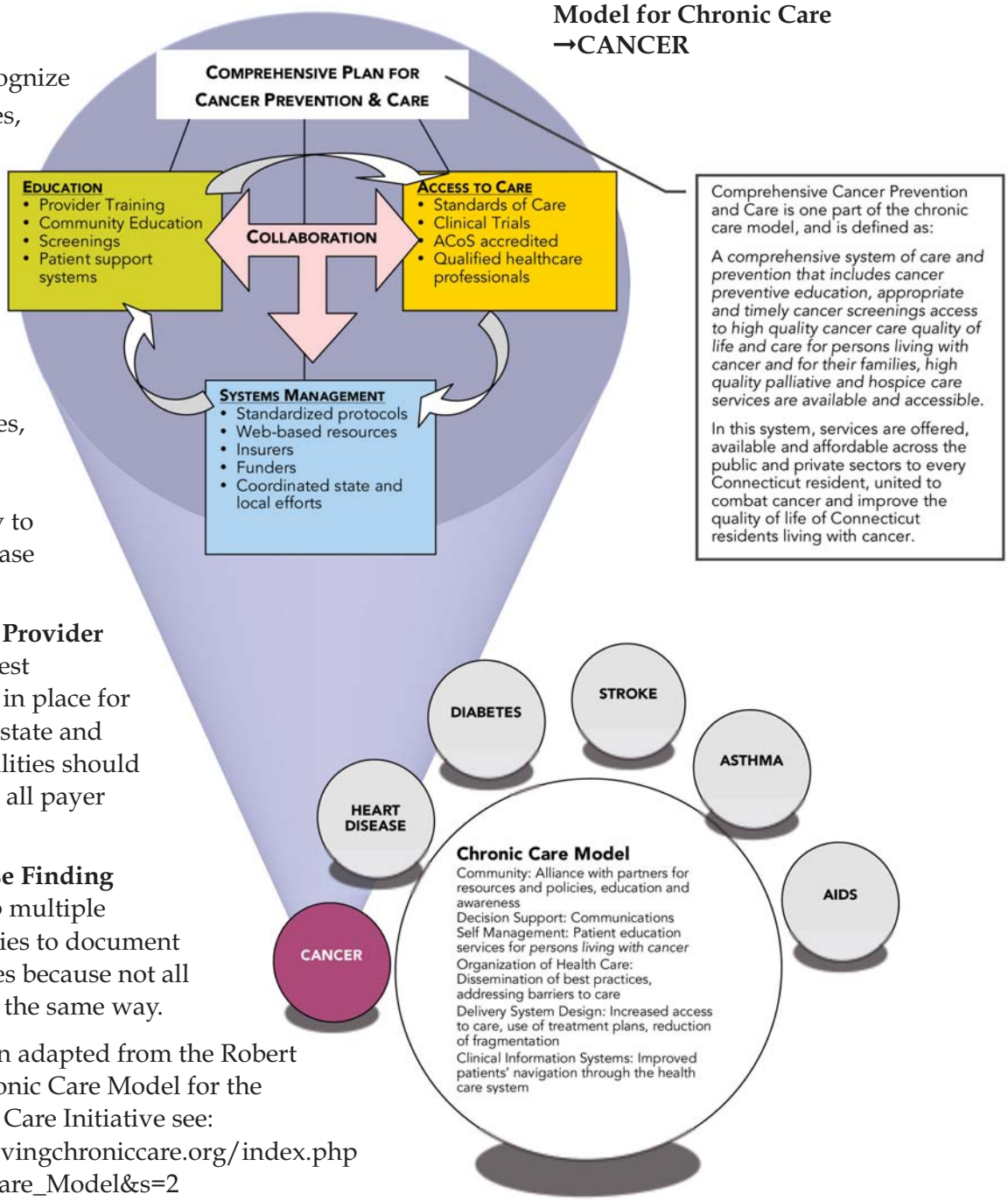
Registries are vital in the tracking of cancer through the continuum. Additional uses of clinical information systems will facilitate patients' navigation through the health care system.

Organization Of Health Care

Get Managed Care Organizations to Recognize Barriers: In some cases, payers may not be aware of the steps they can take to improve chronic disease management.

- **Address Payment Issues:** In some cases, insurance does not cover a service or treatment necessary to proper chronic disease management.
- **Accepted/Uniform Provider Responsibilities:** Best practices should be in place for all providers in the state and provider responsibilities should be standardized for all payer organizations.
- **Multi-Pronged Case Finding Approach:** Develop multiple surveillance strategies to document chronic disease cases because not all patients access care the same way.
- This model has been adapted from the Robert Wood Johnson Chronic Care Model for the Improving Chronic Care Initiative see: http://www.improvingchroniccare.org/index.php ?p=The_Chronic_Care_Model&s=2

Comprehensive Public Health System Model for Chronic Care →CANCER



Appendix C. What Your Organization Can Do to Fight Cancer in Connecticut

Fighting cancer and making a difference requires strong leadership, continued commitment of partner agencies, and access to funding. By building on a solid record of accomplishment, data-driven strategies, and the dedication of its members, the Partnership will continue to strive to achieve its goal to reduce the burden of cancer and improve the quality of life of people living with cancer in Connecticut. We ask you all to join us in this important endeavor.

Each individual can help to ensure that Connecticut is doing everything within its power to reduce the burden of cancer.

- You can help as an individual or as **part of an organization or workplace** by raising awareness about cancer prevention and screening.
- You can **vote** and **contact your elected officials** about cancer issues.
- You can **support funding for programs and policies** that reduce the exposure to risk.
- You can be a voice for **insurance** coverage for outreach, screening, treatment, and end of life care that reaches all segments of our population regardless of their socio-economic, literacy, or insurance status.
- You can participate in or promote **clinical trials**.
- You can fight in your community for better outdoor recreation opportunities and for **healthy food** options in schools, markets, and restaurants.
- You can volunteer to bring screenings and information to diverse populations that may otherwise not receive these important services.
- You can **participate in the Connecticut Cancer Partnership** committees or in other cancer-related organizations.
- Your organization can offer **in-kind** services, space or goods.
- You can work to **assess and monitor health conditions** in your community.
- You are part of this process. You fit into the Plan.

Each type of organization has a role to play. The following table summarizes examples of specific strategies organizations can undertake to reduce the burden of cancer in Connecticut.

Organizational Type	Local Health Depts.	Hospitals	Schools and colleges	Community Health Center	Businesses	Prof. Org	Community or Faith Based Orgs	Medical Professional
Provide cancer prevention and screening info	√	√	√	√	√	√	√	√
Encourage healthy eating and active living practices & opportunities in your community	√	√	√	√	√	√	√	√
Advocate for equitable access to health care and policies to improve health	√	√	√	√	√	√	√	√
Be a part of the Connecticut Cancer Partnership-Join a committee	√	√	√	√	√	√	√	√
Collaborate with other organizations with risk reduction goals	√	√	√	√	√	√	√	
Offer space for educational programming, activities, meetings	√	√	√	√	√		√	
Support clinical trial participation	√	√		√		√	√	√
Promote awareness of end of life options, education and programs		√		√	√	√	√	√
Provide in-kind or monetary support for Plan activity implementation	√	√		√	√	√	√	
Encourage								
Share best practices	√	√	√	√	√	√		√
Offer professional education on cancer topics		√	√			√		
Specific examples:	Needs assessments, environmental changes	Sponsor screenings ACoS	Encourage phys ed, healthy school food, and smoke free campuses	Assess needs of under insured	Offer smoking cessation programs, provide health insurance, adopt health work place policies	Provide speakers on cancer topics	Address living will and end of life issues	Use culturally appropriate language. Make early hospice referrals. Enroll patients in clinical trials

APPENDIX D. Tracking Table

Connecticut Cancer Plan 2009-2013 Tracking Data

Obj. No.	Objective Description with Target	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Target 2013	Data Source
PREVENTION															
1	Decrease the percentage of adults and youths who currently use tobacco.														
	Adults		18.6%	18.1%	16.5%	17.0%	15.4%			14.0%				12.0%	CT BRFSS
	Male						16.5%								
	Female						14.4%								
	White						15.2%								
	Black						21.9%								
	Hispanic						15.3%								
	Income<$15K						28.0%								
	<High School Education						28.4%								
	High school students		22.5		18.1%		21.1%			15.0%				10.0%	CT YRBS
	Male				17.8%		19.5%								
	Female				18.2%		22.6%								
	White				17.2%		22.4%								
	Black				11.2%		9.4%								
	Hispanic				15.0%		22.7%								
	Middle school students		5.9		9.8%		3.40%							5.0%	CT Youth Tobacco Survey
2a	Increase the proportion of adults and youths who consume at least 5 fruits and vegetables per day														
	Adults		29.8%		27.4%		28.5%			45.0%				75.0%	CT BRFSS
	Male						23.2%								
	Female						33.3%								
	White						28.7%								
	Black						25.3%								
	Hispanic						23.9%								
	Income<$15,000						30.5%								
	<High School Education						20.5%								
	Youths Grades 9- 12		21.6%*		21.8%		21.5%			45.00%				75.0%	CT YRBS
	Male				24.9%		22.9%								
	Female				18.7%		20.0%								
	White				21.7%		20.7%								
	Black				22.8%		24.6%								
	Hispanic				20.2%		21.7%								
2b	Increase the proportion of adults and high school students following ACS activity guidelines						52.40%								
	Adults						52.5%			60.0%				70.0%	CT BRFSS
	Male						54.2%								
	Female						50.8%								
	White						53.8%								
	Black						41.5%								
	Hispanic						46.6%								
	Income<$15,000						46.0%								
	<High School Education						41.9%								
	Youth						45.1%			60.00%				70.00%	CT YRBS
	Male						52.7%								

APPENDIX D. Tracking Table

Connecticut Cancer Plan 2009-2013 Tracking Data

Obj. No.	Objective Description with Target	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Target 2013	Data Source
	Female						37.4%								
	White						50.5%								
	Black						34.4%								
	Hispanic						32.3%								
	Reduce percentage of overweight,obese adults, children														
	Overweight adults--all						37.5%			no increase				No>2005 Rate	CT BRFSS
	Male		45.7		48.5%	47.9%	46.8%								
	Female		25.9		28.1%	28.7%	28.5%								
	White				37.9%		37.1%								
	Black				40.8%		33.6%								
	Hispanic				42.4%		44.4%								
	Income<$15,000				38.6%		40.7%								
	<High School Education				38.3%		38.4%								
	Obese adults						21.7%			no increase				No>2005 Rate	CT BRFSS
	Male		19.9		21.0%	21.7%	23.7%								
	Female		18.3		19.2%	19.5%	19.9%								
	White				19.1%		21.8%								
	Black				35.2%		30.9%								
	Hispanic				24.0%		20.2%								
	Income<$15,000				23.3%		25.1%								
	<High School Education				28.2%		27.4%								
	Obese high school students				11.2%		12.3%			no increase				No>2005 Rate	
	Male				13.9%		16.2%								
	Female				8.4%		8.2%								
	White				9.2%		9.6%								
	Black				15.4%		21.1%								
	Hispanic				17.9%		17.5%								
	Overweight high school students		11.6%*		14.7%		13.3%							no increase	CT YRBS
	Male				16.3%		14.9%								
	Female				12.9%		11.5%								
	White				13.7%		12.3%								
	Black				16.6%		11.7%								
	Hispanic				18.4%		19.5%								
3	Reduce cancer-related environmental exposures at home and in the workplace.														
4	Increase percentage of adults and youth who practice sun/ultraviolet protection behaviors.														
	Sunscreen use among adults				50.4									75%	HINT Survey
	Sunscreen use among youth						10.3							75%	YRBSS
	Males						10.3								
	Females						13.7								
	White						12								

APPENDIX D. Tracking Table

Obj. No.	Objective Description with Target	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Target 2013	Data Source
		Connecticut Cancer Plan 2009-2013 Tracking Data													
	Black						4.9								
	Hispanic						7.9								
	Sun safety behaviors (stayed in shade, or wore long pants,long sleeves, or hat)						17.4								YRBSS
	Male						19.4								
	Female						15.4								
	White						14.9								
	Black						21.1								
	Hispanic						20.9								
5a	Reduce high risk behaviors related to alchohol and sexual activities. Alcohol use not to exceed 2 drinks/day for males and 1 drink/day for females)														
	Adults						5.90%							4.0%	
	Males >2 drinks per dat		7.2%	6.0%	4.9%	5.6%	5.9%							4.0%	CT BRFSS
	Females >1 drink per day		6.3%	5.9%	6.4%	5.1%	5.9%							4.0%	
	White						6.4%								
	Black						2.4%								
	Hispanic						2.2%								
	Income<$15,000						2.2%								
	<High School Education						3.5%								
5b	Youth Alcohol Use														CT YRBS
	consume alchohol		27.2%		45.3%		46.0%							40%	
	Males				45.0%		46.7%								
	Females				45.5%		45.3%								
	White				49.0%		50.6%								
	Black				31.9%		26.3%								
	Hispanic				38.8%		42.7%								
	Youth who report binge drinking													20%	
	Youth condom use						62.7%								CT YRBS
	Male						67.4%								
	Females						58.7%								

APPENDIX D. Tracking Table

Connecticut Cancer Plan 2009-2013 Tracking Data

Obj. No.	Objective Description with Target	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Target 2013	Data Source
EARLY DETECTION															
1	Increase the percentage of women age 40 and over who have had a mammogram in the past two years		82.40%	81.10%		82.0%								90%	BRFSS
	White					82.5%									
	Black					81.8%									
	Hispanic					76.4%									
	Income< $15K					64.8%									
	<High School Education					73.3%									
2	Increase the proportion of patients who receive timely and appropriate follow-up after receiving abnormal breast cancer screening results (BCCEDP participants)														BCCEDP
	Abnormal results with complete follow-up		87.2%	94.0%	87.9%	90.3%								95%	BCCEDP*
	Abnormal results: time from screening to diagnosis within 60 days		12.8%	10.3%	7.6%	90.6%								95%	BCCEDP
3	Increase the percentage of women over 18 who have had a Pap test within the past 3 years	73.4		87.8		86.8%								90%	BRFSS
	White					87.0%									
	Black					88.9%									
	Hispanic					84.2%									
	Income< $15K					71.7%									
	<High School Education					68.8%									
4	Increase percentage of adults 50 and over who have had appropriate colorectal cancer screening:														
	Colonoscopy or sigmoidoscopy ever					68.7%									BRFSS
	Men					70.5%									
	Women					67.3%									
	White					70.0%									
	Black					59.6%									
	Hispanic					65.0%									
	Income<$15K					58.4%									
	<High School Education					62.8%									
	Fecal occult blood in past 2 yrs					26.9%									BRFSS
	Men					25.5%									
	Women					27.9%									
	White					27.7%									
	Black					27.2%									
	Hispanic					13.0%									
	Income<$15K					19.0%									
	<High School Education					18.1%									
5	Increase proportion of residents who know the early signs of lung, ovarian, prostate, testicular, skin, and oral cancers.		N/A												BRFSS

APPENDIX D. Tracking Table

Connecticut Cancer Plan 2009-2013 Tracking Data

Obj. No.	Objective Description with Target	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Target 2013	Data Source
TREATMENT															
1	Increase the number of health care providers and cancer patients who have recent and comprehensive about cancer treatment and standards of care								TBD						Surveys, web site hits, CIS
2	Increase the number CT patients participating in clinical trials														Clinical Trials Network
	# patients in clinical trials								TBD						
	# Clinical sites enrolling patients in CT								TBD						
	# Open clinical trials								TBD						NCI
	Number of hits to info on clinical trials on web site														
3	Increase number of approved cancer programs and oncology certified/specialized healthcare professionals in Ct														ACoS CoC
	ACoS approved cancer programs								26						
	Oncology certified nurses								407						
	Other professions														
SURVIVORSHIP															
1	Increase the proportion of provider referrals and cancer survivors and cancer care providers who access and utilize survivor support services								TBD						surveys
2	Increase the number of health care providers who are knowledgeable about evidence-based survivorship care								TBD						number of educational programs offered, number of attendees, pre-post tests, surveys
3	Increase the number of providers, families, and caregivers who are knowledgeable about the needs of children surviving cancer.								TBD						number of educational programs offered, number of attendees, pre-post tests, surveys
4	Increase percentage of cancer survivors who practice positive health behaviors regarding wieght, physical activitiy, tobacco and alcohol use, sun exposure and cancer screenings.								TBD						Survivor survey

APPENDIX D. Tracking Table

Connecticut Cancer Plan 2009-2013 Tracking Data

Obj. No.	Objective Description with Target	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Target 2013	Data Source
PALLIATIVE AND HOSPICE CARE															
1	Increase the number of health care professionals (physicians, nurses, social workers, and spiritual counselors) who specialize in or are certified in palliative and hospice care.														
	Physicians		N/A						27					30	www.aahpm.org
	Nurses								163					250	www.nbchpn.org
	Administrators (nursing)								0					6	
	Spiritual Counselors													TBD	
	Social workers (new program as of 2008)													TBD	www.socialworkers.org
2	Increase number of healthcare setting offering palliative and hospice care services														www.capc.org/reportcard
	Hospitals								14/26					20/26	www.qualitycheck.org
	Nursing homes													TBD	Hospice Licensure info from www.ct.gov/dph
	Home care providers								32					TBD	
3	Increase the number of people served by palliative and hospice care initiatives														Ct Coalition to Improve End of Life Care
	# trainings in pediatrics, prison, veterans settings						Prison-8								CT AHCH
	# professonals trained in pediatrics, prison, veterans settings						Prison-130								
	#patients served in pediatrics, prison, veterans settings						Prison-63								
4	Increase the percentage of patients receiving effective pain management														www.hospitalcompare.hhs.gov
	Hospitals														
	Long-term Care (LTC) facilities														www.medicare.gov/NHCompare
5	Increase the percentage of Connecticut residents who receive hospice care in a timely manner and at home														Medicare hospice data
	Increase the percentage of Connecticut residents who receive hospice care at home at time of death						27.70%							35	DPH death registry
	Percentage on Medicare hospice benefit for at least 30 days prior to death													50%	Medicare hospice data
	Percentage of deaths while on Medicare hospice benefit	(2000) 19.4%					28%								Medicare hospice data
	Median length of hospice stay days	(2001) 21 days		21.7	26.0	20.6**	40.0							45	
	Cancer deaths at home	26.60%			27.8%	28.4%*									Ct DPH Death Registry

Connecticut Cancer Partnership Organizations

This list reflects organizations represented by individual members. Many organizations have several members. Membership also includes many individual survivors, advocates, and volunteers.

Advocate
Aetna
African American Affairs Commission
American Cancer Society
American Cancer Society volunteers
American College of Obstetricians & Gynecologists
American College of Surgeons
American Lung Association
Ann's Place, the Home of I Can
Axa Advisors LLC
Boscarino, Grasso & Twachtman, LLP
Breast Cancer Survival Center
Breast Center at Greenwich Hospital
Bridgeport Hospital
Bristol Hospital
Burgdorf/Fleet Health Center
CADH
Cancer Information Service of NE
CancerCare of Connecticut
CAPS
Charlotte Hungerford Hospital
Chatham Health District
Chesprocott Health District
Choices Inc.
City of Bridgeport
City of Bristol
Clinical Trials Network, Yale University School of Medicine
Coalition for a Safe & Healthy Connecticut
Community Access Program Coordinator - Yale New Haven Hospital
Community Health Center Association of CT
Community-Partnerships
Comprehensive Breast Health Center
Connecticut AHEC Program
Connecticut Association for Home Care, Inc.
Connecticut Carcinoid Initiative
Connecticut Department of Public Health
Connecticut Oncology Association
Connecticut Pathology Laboratories, Inc.
Connecticut Primary Care Association
Connecticut Public Health Association
Connecticut Society of Radiological Technologists
CT Association of Directors of Health
CT Breast Cancer Coalition
CT Challenge Survivorship Clinic at Yale Cancer Center
CT Children's Medical Center
CT Community Care Inc.
CT Dept of Transportation/Dist. III Construction
CT Employment Rights Department
Connecticut Hospital Association
CT Nurses Association (CNA)
CT VNA
Connecticut VNA Hospice/Masonicare
Danbury Hospital
Darien Health Department
Divine Survivors Society
Easter Seals Greater Hartford Rehabilitation Center
Eastern Connecticut State University
Eastern CT Health Network/Women's Center For Wellness
Education Works Consulting Services
EFNFP-UConn Cooperative Extension
ELNEC
Environment and Human Health, Inc.
Fairfield University
Fairhaven Community Health Center
Father McGivney Cancer Center, Hospital of St. Raphael
Gardner's House
Glastonbury Health Dept.
Greenwich Department of Health
Greenwich Hospital, Blendheim Cancer Center
Greenwich Hospital Home Hospice
Hair For You
Hartford Hospital
Hartford Health & Human Services Department
Holt, Wexler, & Farnam, LLP
Hope Clinic
Hospice of Bristol Hospital
Hospice of SE Connecticut
Hospital for Special Care
Hospital of Saint Raphael
Human Development and Family Studies, UConn
IBM
John D. Thompson Institute of the CT Hospice
Jonas Consults
Komen Foundation
Lawrence & Memorial Hospital
Ledge Light Health District
Leever Cancer Center
Leukemia & Lymphoma Society
Lower Fairfield County Regional Action Council
Manchester Memorial Hospital
Mashantucket Pequot Tribal Nation
MATRIX Public Health Solutions, Inc.
Medical Ethics Consulting/Education
Medical Oncology and Hematology
Middlebury Department of Health
Middlesex Hospital Cancer Center
Mid-Fairfield Hospice
MidState Medical Center
Mohegan Tribe
Morra Communications
National Alliance of State Prostate Cancer Coalitions
National Lung Cancer Partnership
National Ovarian Cancer Coalition
National Prison Hospice Assoc.
Naugatuck Valley Health District
New Britain General Hospital
New Opportunities, Inc./Home Based Family Services
Northwestern Area Health Education Center
Norwalk Hospital
Novartis Oncology
OBGYN Group of Manchester
Office of Managed Care Ombudsman
Oncology Network of Connecticut
Permanent Commission on the Status of Women
Pfizer Oncology
Pfizer, Inc.
Phoenix Community Cancer Center
Physicians Health Alliance, LLC
Praxair Cancer Center at Danbury Hospital
Qualidigm
Quinlan-Wolyniec Consulting, LLC
Quinnipiac University
Regional Hospice of Western CT, Inc.
Relay for Life of Bethel
Saint Francis Hospital
Southern Connecticut State University
Southwest Regional Mental Health Board, Inc
Susan G. Komen for the Cure, Hartford
St Vincent's Medical Center
Stamford Dept. Public Health & Social Services
Stamford Hospital
The Hospital of Central CT at New Britain General & MidState Medical Center
The Leukemia & Lymphoma Society
The William W. Backus Hospital Pain Management Center
Tumor Registrars Association of CT
UConn- Cooperative Extension System
University of Connecticut, Human Development and Family Studies
UConn Health Center
UConn School of Medicine
United Way of Connecticut/2-1-1
VA Connecticut Health Care System
Visiting Nurse Association of South Central CT
VNA of Ridgefield
Waterbury Health Department - WIC
Waterbury Hospital
West Haven Health Dept.
Windham Hospital
Windham Regional Community Council
Witness Project of CT., Inc.
Yale Rudd Center for Food Policy and Obesity
Yale Interdisciplinary Palliative Care Educational Project
Yale Cancer Center
Yale New Haven Hospital
Yale School of Nursing
Yale School of Public Health
Yale University of Medicine
Y-ME CT Breast Cancer Org.