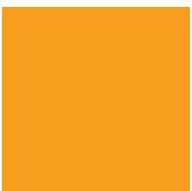


# Kansas Cancer Prevention and Control Plan 2012 - 2016



K A N S A S

comprehensive  
cancer

control &  
prevention

September 25, 2012

Dear Citizens of Kansas:

If I were to ask if you or anyone you know has ever been diagnosed with cancer, you would probably say yes. In fact, in 2008, more than 13,000 new cases of cancer were diagnosed among Kansas residents. The good news is that the number of people surviving cancer keeps growing as prevention, screening, early diagnosis and treatment improve.

The burden of cancer in Kansas is staggering. Estimates of the costs of cancer to the state are approximately \$2 billion annually. This includes \$934 million for direct medical costs and \$1.1 billion for indirect mortality costs. Even more importantly, the humanitarian costs are incalculable.

All Kansans can join the effort to reduce the burden of cancer by taking steps to reduce their cancer risk. Science tells us that tobacco use, obesity, excessive alcohol consumption, not eating enough fruit and vegetables, and low levels of physical activity all contribute to the development of cancer, as well as many other chronic diseases. Environmental factors such as second hand smoke, radon and ultraviolet radiation also increase cancer risk. Some risk factors for cancer cannot be changed, such as genetics and age. However, lifestyle changes made by individual Kansans do reduce our cancer risk.

Regularly scheduled cancer screening helps detect the disease at its earliest stage when it is most treatable. It is imperative for Kansans to work with their physicians to determine what screenings are appropriate for them based on family history and risk factors. Once cancer is diagnosed, prompt and thorough treatment is essential for prolonging survival and improving quality of life. It is important to understand that being diagnosed with cancer means it is time to fight. Working together, we will beat this disease.

Robert Moser, MD, Secretary of the Kansas Department of Health and Environment, joins me in presenting this Kansas Cancer Prevention and Control Plan 2012-2016 to you, the citizens of Kansas. This plan was produced through the collective efforts of more than 150 public and private sector members of the Kansas Cancer Partnership. Please join our efforts to put this plan into action to reduce the burden of cancer in Kansas. For humanity's sake, we need to put this killer to death.

Sincerely,



Sam Brownback  
Governor of the State of Kansas

July 9, 2012

Dear Fellow Kansans:

As the Chair and Co-Chair of the Kansas Cancer Partnership (KCP), we are pleased to provide you with the 2012-2016 Kansas Cancer Prevention and Control Plan. This plan represents the collective thinking and action of cancer stakeholders throughout Kansas with the goals of reducing the burden and suffering of cancer and enhancing the lives of cancer survivors and their families.

Significant accomplishments have been possible through the work of individuals and agencies since the release of the previous Kansas cancer plan in 2004. KCP's public policy committee members worked with other coalitions on successful initiatives that culminated in: passage of the Kansas Clean Indoor Air Act; increased access to cancer clinical trials; access to oral chemotherapy; increased state support for the Early Detection Works breast and cervical cancer control program; revised Cancer Registry laws and enacted Kansas Radon laws. Additional achievements include leveraging resources through public-private partnerships for cancer screening and other initiatives, and numerous continuing education opportunities for health professionals on cancer prevention and control topics.

While many other accomplishments have been achieved, much work remains. The 2012-2016 plan outlines goals and objectives along a cancer continuum. Goals include:

**Prevention:** Prevent cancer from occurring or reoccurring.

**Early Detection and Diagnosis:** Detect cancer in its earliest stage through early detection and a timely, definitive diagnosis.

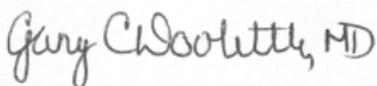
**Treatment:** Treat cancer with appropriate, quality care.

**Survivorship and Quality of Life:** Assure the highest quality of life possible for cancer survivors throughout their lives.

Cancer touches many Kansans every day. In the time since we started developing the plan both of us have been diagnosed with cancer, but our prognosis is good. We both were fortunate to have excellent support systems of family and friends, access to quality cancer care and we both had insurance. These are all factors that reduce the burden of a cancer diagnosis on the individual, their family and on Kansas. All Kansans should have the same opportunities.

The Kansas Cancer Partnership strives to provide opportunities in the development, coordination and implementation of cancer prevention and control in Kansas. We encourage new members to take an active role in working with us on the goals, objectives and strategies in this plan. Please visit [www.cancerkansas.org](http://www.cancerkansas.org) for information on becoming a KCP member and join us in addressing the burden of cancer in Kansas.

Sincerely,



Gary Doolittle, MD

Professor of Clinical Oncology  
Midwest Cancer Alliance  
University of Kansas Cancer Center



Peggy Johnson, Executive Director/COO

Wichita Medical Research and Education Foundation  
Mission Advisory Council  
Mid-Kansas Affiliate, Susan G Komen for the Cure

# Table of Contents

|                                       |    |   |
|---------------------------------------|----|---|
| Table of Contents .....               | i  |   |
| Executive Summary .....               | ii |   |
| Introduction .....                    | 1  |   |
| Burden of Cancer in Kansas .....      | 7  |    |
| Goals and Objectives (Overview) ..... | 17 |    |
| Prevention.....                       | 19 |    |
| Early Detection and Diagnosis .....   | 27 |    |
| Treatment.....                        | 33 |    |
| Survivorship and Quality of Life..... | 37 |    |
| State Plan Evaluation .....           | 41 |  |
| Information Resources .....           | 45 |  |



# EXECUTIVE SUMMARY

Cancer is a devastating disease that affects thousands of Kansans every year. In 2008, there were more than 13,000 new cases of cancer diagnosed among Kansas residents and an age-adjusted cancer incidence rate of 460.1 cases per 100,000 persons.<sup>1</sup> Cancer is also a very deadly disease. In 2009, there were approximately 5,300 deaths due to cancer in Kansas and an age-adjusted cancer mortality rate of 172.9 deaths per 100,000 persons.<sup>2</sup> Few individuals have escaped personal contact with cancer and most citizens of the state can attest to the hardship it induces.

Furthermore, cancer is a massive financial drain on state resources. Estimates of the costs of cancer to the state of Kansas are approximately \$2 billion annually.<sup>3</sup> It is imperative that action be taken to confront cancer with a focused and systematic plan of attack.

The primary goal of the Kansas Cancer Partnership (KCP) is to reduce the burden and suffering of cancer and to enhance the lives of all Kansas cancer survivors and their families. In pursuit of this goal, the KCP developed the Kansas Cancer Prevention and Control Plan: 2012 - 2016. This plan is a useful road map for assuring a well thought out approach to address cancer issues in Kansas. Effective state plan implementation must ensure that KCP's efforts:

- Leverage KCP's strengths
- Are coordinated and collaborative
- Base action on identified gaps
- Are linked to measurable outcomes
- Use existing and new resources

The Kansas Cancer Plan is a five-year plan, and each year KCP will use criteria such as need, potential impact, and likelihood for success to select new or retain previous priority objectives. To address state plan priority objectives, KCP workgroups will select evidence-based strategies and develop detailed action plans to guide this work. Action plans will outline the role of individual partners and the resources leveraged from collaborative efforts.



## Goals and Objectives

- **Prevention Goal: Prevent cancer from occurring or recurring**
  - Reduce tobacco use among adolescents and adults.
  - Increase HPV immunization rates among adolescents.
  - Increase the proportion of adolescents and adults who meet current federal physical activity guidelines.
  - Increase consumption of fruits and vegetables among adolescents and adults.
  - Reduce the proportion of Kansans who report sunburns.
  - Increase the percent of Kansas homes that have installed radon mitigation systems or were built using radon-resistant construction techniques.
- **Early Detection and Diagnosis Goal: Detect cancer in its earliest stage through screening and a timely, definitive diagnosis**
  - Increase the percent of Kansas adults using one of the screening options recommended for colorectal cancer based on nationally recognized guidelines.
  - Increase the number of cancer centers that offer patient navigator support services from early detection through treatment and survivorship per American College of Surgeons standards.
  - Increase the percent of women who receive breast cancer screening based on nationally recognized guidelines.
  - Increase the percent of women who receive cervical cancer screening based on nationally recognized guidelines .
  - Increase lung cancer screening for high risk populations, based on the most recent published guidelines. Increase the proportion of men who have discussed with their health care provider whether or not to have a prostate-specific antigen (PSA) test to screen for prostate cancer.
  - Increase the percentage of adults with a family history of cancer who have discussed with their health care provider whether or not to receive genetic counseling.
  - Decrease the time between initial visit with a suspicious finding to a definitive diagnosis and treatment to less than 30 days.
- **Treatment Goal: Treat cancer with appropriate, quality care**
  - Increase access to palliative care services during and after treatment.
  - Increase participation in cancer treatment clinical trials.
- **Survivorship and Quality of Life Goal: Assure the highest quality of life possible for cancer survivors throughout their lives**
  - Improve quality of life for cancer survivors, including physical and mental health.
  - Increase the number of cancer centers that work together with patients to develop a comprehensive care summary and follow-up plan to promote physical and mental health after completing treatment.
  - Increase use of hospice services.

## Target populations

Implementation of the state cancer plan will decrease cancer and cancer-related deaths among all Kansans and will improve the quality of life among cancer survivors. There are differences in cancer risks and rates among different groups of Kansans and these groups will be prioritized for state plan implementation. The following is a list of cancer-relevant health disparities:

- **Age:** Cancer risk increases with age.
- **Income:** Lack of health insurance is an important barrier to cancer prevention and early detection. Some patients who are struggling to pay for their cancer treatment could have prevented their cancers altogether or been diagnosed at an earlier stage with better access to health care.<sup>4</sup>
- **Disability:** Kansans with disabilities have a higher prevalence of all chronic conditions including cancer, compared to Kansans without disabilities.<sup>5</sup>
- **Rural-urban location:** The percentage of Kansans who meet cancer screening guidelines is significantly lower among persons living in rural or frontier counties compared to those who live in urban or semi-urban counties.<sup>6</sup>
- **Race/Ethnicity:** Disparities in the cancer burden among racial and ethnic minorities reflect differences in the prevalence of risk factors among different racial/ethnic groups, as well as obstacles to receiving health care services related to early detection and high-quality treatment.

## Evaluation

Existing data sources will be routinely monitored to track progress of long-term outcomes (5-10 years) and intermediate (2-5 years) outcomes of the state plan. Long-term outcomes include changes in cancer incidence and mortality rates and intermediate outcomes include alterations in screening practices and cancer risk protective behaviors. In addition, KCP workgroups will develop more focused evaluation plans to assess short-term outcomes ( $\leq 1$  year) related to activities addressing selected annual priority objectives.

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<sup>1</sup>2000-2008 Kansas Cancer Registry.

<sup>2</sup>2000-2009 Kansas Information for Communities, Bureau of Epidemiology and Public Health Informatics, Kansas Department of Health and Environment. [http://kic.kdhe.state.ks.us/kic/death\\_table.html](http://kic.kdhe.state.ks.us/kic/death_table.html) Accessed 10/26/11.

<sup>3</sup>Cancer Facts and Figures 2012, American Cancer Society.

<sup>4</sup>American Cancer Society, Cancer Facts and Figures 2008; 2012.

<sup>5</sup>2008-2010 Kansas Behavioral Risk Factor Surveillance System (BRFSS), Bureau of Health Promotion, Kansas Department of Health and Environment. <http://www.kdheks.gov/brfss/index.html> Accessed 10/26/11.

<sup>6</sup>2010 Kansas Behavioral Risk Factor Surveillance System, Kansas Department of Health and Environment.



# INTRODUCTION

## Purpose

The common goal at the basis of the Kansas Cancer Partnership (KCP) is to reduce the burden and suffering of cancer and to enhance the lives of all Kansas cancer survivors and their families. This plan presents objectives and strategies to foster collaboration for achieving this goal.

This Kansas Cancer Prevention and Control Plan represents the collective thinking and action of cancer stakeholders - both individuals and organizations that comprise the Kansas Cancer Partnership - throughout Kansas. It is not just a state agency plan, but a plan for all organizations and individuals concerned about the cancer burden in the state. Ultimately, achievement of plan objectives will improve the health-related quality of life of Kansans.

## Kansas Cancer Partnership (KCP)

The Kansas Cancer Partnership provides statewide leadership in the development, coordination, and implementation of cancer prevention and control in Kansas. The partnership brings together a wide range of individuals and organizations to work towards the KCP common goal; the partnership's work could not be accomplished by individuals or agencies acting alone. For example, multiple entities working together ensure continuity of services and support. This is vital for Kansans who are diagnosed with cancer and their family members, as Melissa and Ken describe (see textbox). In addition to the collaborative work that is the focus of this document, KCP recognizes the contributions of individual advocates and agencies that work on cancer initiatives that are and are not represented in this plan. KCP developed this strategic plan to guide the partnership's work over the next five years.

Early detection can save your life.

early  
detection

works

call to see if you qualify for a free screening

Toll Free:

1-877-277-1368

[www.preventionworkskansas.com](http://www.preventionworkskansas.com)

## *"Cancer changed our lives forever."*

***Melissa:** I needed a biopsy for a large lump on my right breast because the mammogram and ultrasound results were called "highly suspicious." We had no insurance and the bills started to pile up. I was checking in for my biopsy and meeting with the financial counselor when I learned that I qualified for the Early Detection Works Program (EDW). They covered the biopsy cost!*

*The biopsy came back positive and I was diagnosed with Stage IIIa breast cancer. EDW helped me get into the Medicaid program to pay for treatment. I am very thankful for EDW and the people that worked hard to make sure that I got the medical attention that I needed.*

*I am also very thankful for having a local cancer center and not having to drive far for treatment. I had a right mastectomy and am now taking treatments for the next 18 months along with radiation. The people at the cancer center have been wonderful, and quick to make sure I am taken care of.*

***Ken:** I had no idea that EDW even existed until right when we needed it. Our family cannot afford insurance so to have this program is a real godsend. Without EDW we would be thousands and thousands of dollars in debt. Now we can focus on my wife's health and not have to focus on paying bills. We can look forward to the future knowing that we have done everything possible to fight this disease.*

## Providing Leadership to Prevent and Control Cancer in Kansas

The Kansas Cancer Partnership is actively engaged in and accountable for the following leadership roles in addressing cancer in Kansas.

**Work Together:** We recognize many individuals and organizations are working towards common cancer goals and objectives in Kansas, and therefore we strive to support each other in our individual as well as the Kansas Cancer Partnership's efforts.

**Plan for the Future:** We work to develop, update and implement the KCP CCC plan that focuses on all Kansas cancer stakeholders working together on cancer control efforts that otherwise would not happen or be as successful if organizations worked separately.

**Support Coalition Work:** We create and support a coalition infrastructure, such as KCP workgroups that fosters focused team efforts with planned approaches, collaboration, and effective operations and impactful outcomes.

**Build and Sustain the KCP:** We assure the KCP membership remains strong in both size as well as active involvement by creating a supportive environment and ample opportunities for members to fully participate the KCP.

**Prioritize KCP Efforts:** We identify priorities of the KCP and assure an effective infrastructure and a concerted effort to obtain and allocate resources to those priorities.

**Assure Accountability through Assessment and Evaluation:** We regularly assess the successful implementation of decisions made by both the KCP Steering Committee and the KCP coalition and the overall progress of KCP efforts through its work through KCP workgroups and other KCP groups.

**Leverage and Connect Efforts:** We minimize duplication and leverage cancer control efforts by identifying collaborative and cross-cutting opportunities within the work of KCP and the work of other organizations throughout Kansas.

### What is in this Plan?

The Kansas Cancer Prevention and Control Plan and the KCP use a comprehensive approach to address cancer challenges and opportunities. This approach encompasses the continuum of prevention, early detection, treatment, survivorship, and quality of life. This has been successful in the past, as the plan's progress report and key accomplishments attest. Survivor stories remind us of the inherent strengths of Kansans who have experienced cancer.

During the state planning process, Kansas data provided the foundation for goals and objectives. The organization of this plan reflects its comprehensive approach, with sections that parallel the cancer continuum. Corresponding goals include:

### **Prevention Goal:**

Prevent cancer from occurring or reoccurring.

### **Early Detection and Diagnosis Goal:**

Detect cancer in its earliest stage through early detection and a timely, definitive diagnosis.

### **Treatment Goal:**

Treat cancer with appropriate, quality care.

### **Survivorship and Quality of Life Goal:**

Assure the highest quality of life possible for cancer survivors throughout their lives.

### ***Disparate Populations***

*Rather than develop a specific objective for disparate populations, the Kansas Cancer Partnership (KCP) will direct workgroups to prioritize these target populations across all objectives. Increasing representation of these disparate populations within KCP membership will ensure that health disparities are not neglected.*

KCP identified five population groups that experience cancer-related health disparities. These disparate populations include older Kansans, those who live in rural areas, or those who have lower incomes, a disabling condition, or belong to a racial/ethnic minority group. This plan's burden of cancer section highlights key data. A more detailed Burden of Cancer in Kansas report will be published separately and will include cancer incidence, mortality, screening practices, and risk behaviors among disparate populations, when data are available. KCP also plans on producing a document describing the burden of childhood cancer in Kansas.

Sections of this plan that correspond with cancer continuum goals each contain objectives, baseline and target data, and evidence-based strategies. These sections also contain strategies such as implementation of evidence-based practices and environmental approaches, leveraging existing programs and systems, and providing public and professional education. This facilitates collaborative work both within the KCP and with other individuals and organizations throughout Kansas.

### **Progress towards Cancer Prevention and Control in Kansas**

Kansas began comprehensive cancer control planning in 1999. By 2010, this initiative had evolved from an informal group of about 20 individuals into the Kansas Cancer Partnership with over 225 individuals representing diverse private and public organizations across the state. KCP strengthened existing relationships and established others with partners that included:

- Tobacco Free Kansas Coalition
- Susan G. Komen for the Cure
- American Cancer Society
- Local hospitals and clinics
- Midwest Cancer Alliance
- Kansas Health Consumers Coalition
- American Heart Association
- Kansas Small Business Development Center
- The University of Kansas Cancer Center

In addition, KCP works with the Kansas Department of Health and Environment (KDHE) in an integrated approach to chronic disease prevention and control (e.g., cancer, arthritis, school health, diabetes, disability, heart disease and stroke, tobacco control, and injury).<sup>7</sup> This collaborative work is reflected in strategies for meeting state plan objectives. Collaborative workgroups implemented much of the 2005 Kansas Comprehensive Cancer Control and Prevention Plan. However, member organizations also carried out their individual roles in education, awareness, and advocacy pertaining to cancer prevention and control. To build the capacity of partner organizations, in 2008 KCP revitalized advocacy training day, and each year since KCP has convened a morning partnership meeting during the legislative session; many members took the opportunity for individual meetings with state legislators in the afternoon.<sup>7</sup> These educational efforts paid off in the form of policy initiatives that furthered cancer prevention and control in the state.

In 2008, KCP established Kansans for Better Health to educate and advocate to the Legislature about cancer and other health issues. Through Kansans for Better Health, approximately 65 advocates provided a united voice on key issues such as health reform and public health programs. The KCP realized significant policy accomplishments over the past five years:

- The Kansas Clean Indoor Air Act was signed into law, March 12, 2010.
- Kansans' access to cancer treatment was increased through policy change: 1) clinical trials through insurance coverage of routine costs, 2005 and 2010; and 2) oral chemotherapy legislation, 2010.
- Annual State support for the Early Detection Works breast and cervical cancer control program was secured in 2006, with additional funds secured in 2012.
- Cancer registry laws were revised: 1) expanded reporting requirements to include individual physicians, 2004; and 2) enabled the Kansas Cancer Registry to conduct follow-up studies with cancer survivors for specific research projects, 2007.
- Kansas Radon Laws were enacted: 1) radon awareness and testing during real estate transactions, 2008; and 2) measurement and mitigation for technicians/ laboratories and required reporting, 2010.

### **More Key Accomplishments**

■ *Launched KCP website, [www.cancerkansas.org](http://www.cancerkansas.org), in 2006. The site serves as a portal to information on KCP, reliable cancer resources, and monthly cancer awareness topics. By the end of 2011, the website had received more than 275,000 hits.*

■ *Conducted educational activities year-round:*

- *September – Prostate Cancer; Gynecologic Cancer*
- *October - Breast Cancer*
- *Flu season - CDC's "Cancer, Flu, and You"*
- *January - Cervical Cancer; Radon*
- *March – Colorectal Cancer*
- *April - Health Care Decisions Day*
- *May - Women's Health Week; Melanoma/Skin Cancer*
- *June - Men's Health Month; National Cancer Survivors Day*
- *Ongoing – Promote tobacco use cessation and Kansas Tobacco Quitline*

***Textboxes throughout the document describe additional key accomplishments.***

## Implementation of the Plan

The written Kansas Cancer Control Plan is a useful road map for assuring a well-thought-out approach to address cancer issues in Kansas. The key to a successful plan lies in the implementation of the plan itself. The KCP believes that effective state plan implementation must ensure that KCP's efforts:

- Leverage KCP's strengths
- Are coordinated and collaborative
- Base action on identified gaps
- Are linked to measurable outcomes
- Use existing and new resources

The Kansas Cancer Plan is a five-year plan, and KCP will select priority objectives based on criteria such as need, potential impact, and likelihood for success. Priority objectives for year one have already been identified. Each year new priority objectives will be selected or previously selected ones may continue. A cover letter that accompanies each copy of the state plan will describe the priority objectives and provide plan updates; this letter will be updated annually.

To address state plan priority objectives, KCP workgroups will select evidence-based strategies and develop detailed action plans that will guide this work. Action plans will note the role of individual partners and document resources leveraged from these collaborative efforts. Ultimately, state plan implementation will increase evidence-based and environmental approaches, use of observational data for planning and evaluation, clinical-community linkages, health systems change, and quality clinical preventive services.

## What Can You Do to Help?

The KCP is an inclusive coalition of those who are concerned about and want to work together to address the cancer problem. New members are welcome and can take an active role in collaboratively working on the goals, objectives and strategies in this plan. Please visit [www.cancerkansas.org](http://www.cancerkansas.org) for information on becoming a KCP member. The website also contains a link to a brochure with suggestions for those who want to become more actively involved in cancer prevention and control activities. Specific suggestions are tailored to individuals and members of disparate populations, health professionals, employers, schools, colleges/universities, local health departments, community coalitions, professional organizations, and faith-based groups.

*“Kansas has a long and rich history of taking a proactive approach to public health. The over arching mission of KDHE is to protect and improve the health and environment of all Kansans. In keeping with this mission, the KDHE Cancer Prevention and Control Program supports the work of the KCP and implementation of this state plan through staffing, training and technical assistance, assessment of epidemiologic data, and evaluation of KCP effectiveness and interventions that aim to reduce the incidence and burden of cancer in Kansas.”*

*- Robert Moser, MD, KDHE Secretary and State Health Officer*

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<sup>7</sup>Rochester, PW, Townsend, JS, Given, L, Krebill, H, Balderrama, S, Vinson, C. (2010). Comprehensive cancer control: progress and accomplishments. *Cancer Causes Control*. 21:1967–1977.



# BURDEN OF CANCER IN KANSAS

*NOTE: data presented throughout this document are based on the most current statistics available at time of publication.*

## Cancer Mortality

In 2009, there were approximately 5,300 deaths due to cancer in Kansas. The age-adjusted cancer mortality rate in Kansas has decreased significantly in the past decade from 186.2 deaths per 100,000 persons (95% confidence interval: 181.1 to 191.3) in 2000 to 172.9 deaths per 100,000 persons (95% confidence interval: 168.2 to 177.7) in 2009. In Kansas, age-adjusted cancer mortality rates were significantly higher for men as compared to women during this time period (Figure 1). In addition, age-adjusted cancer mortality rates were significantly higher for African Americans compared to whites.<sup>8</sup> The declining trends in cancer mortality, as well as overall gender and race differences, in Kansas mirror national trends.<sup>9</sup>

## Leading Causes of Cancer Death in Kansas (2009)

### Females

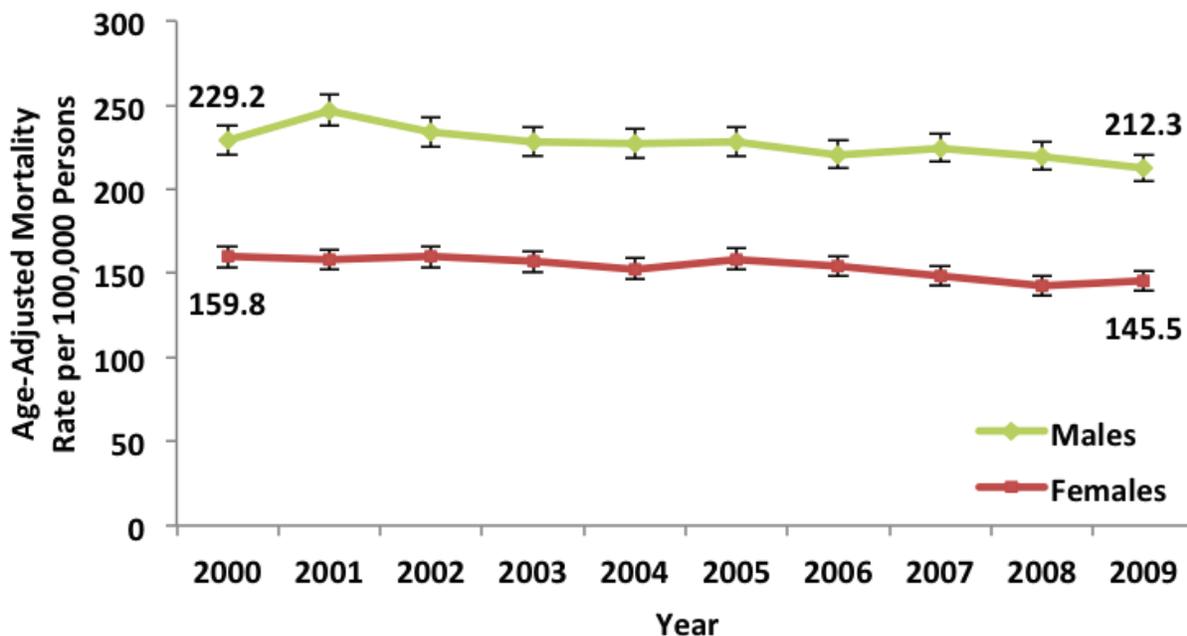
- Lung cancer (40.5 deaths per 100,000 females)
- Breast cancer (21.4 deaths per 100,000 females)
- Colorectal cancer (12.8 deaths per 100,000 females)

### Males

- Lung cancer (67.8 deaths per 100,000 males)
- Prostate cancer (19.7 deaths per 100,000 males)
- Colorectal cancer (18.9 deaths per 100,000 males)

Source: 2009 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. Rates were age-adjusted to the 2000 U.S. Standard population using the direct method.

Figure 1. Age-adjusted cancer mortality rates by gender, Kansas, 2000-2009



Source: 2000-2009 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. Rates were age-adjusted to the 2000 U.S. Standard population using the direct method.

In 2009, deaths due to cervical cancer in females (1.9 deaths per 100,000 persons) and melanoma of the skin in both females (2.3 deaths per 100,000 persons) and males (4.3 deaths per 100,000 persons) were less common; however, these cancer deaths are worth noting due to the fact that there are effective prevention strategies available.

### Cancer Incidence

In 2008, there were more than 13,000 new cases of cancer diagnosed among Kansas residents. The age-adjusted cancer incidence rate in Kansas has remained stable in the past decade with 464.4 cases per 100,000 persons (95% confidence interval: 456.3 to 472.6) in 2000 and 460.1 cases per 100,000 persons (95% confidence interval: 452.3 to 468.0) in 2008. In Kansas, age-adjusted cancer incidence rates were significantly higher for men as compared to women during this time period (Figure 2). In addition, age-adjusted cancer incidence rates were significantly higher for African Americans in Kansas compared to whites.<sup>10</sup>



### Most Commonly Diagnosed Cancers in Kansas (2008)

#### Females

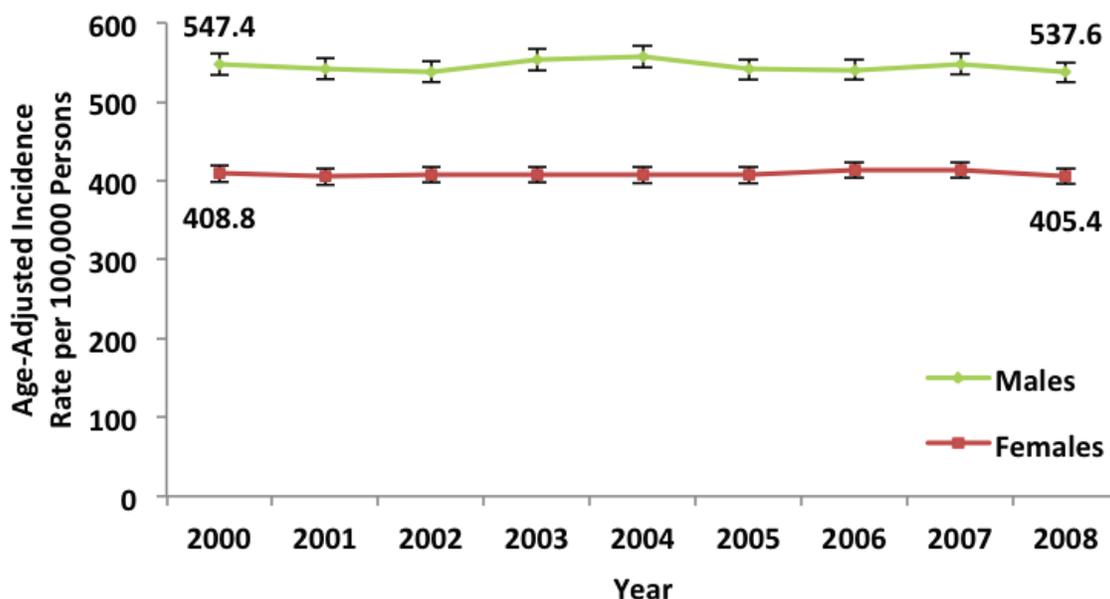
- Lung cancer (120.3 cases per 100,000 females)
- Breast cancer (49.5 cases per 100,000 females)
- Colorectal cancer (41.4 cases per 100,000 females)

#### Males

- Lung cancer (151.3 cases per 100,000 males)
- Prostate cancer (78.8 cases per 100,000 males)
- Colorectal cancer (52.9 cases per 100,000 males)

Source: 2000-2008 Kansas Cancer Registry. Rates were age-adjusted to the 2000 U.S. Standard population using the direct method. Excludes skin cancers.

Figure 2. Age-adjusted cancer incidence rates by gender, Kansas, 2000-2008



Source: 2000-2008 Kansas Cancer Registry. Rates were age-adjusted to the 2000 U.S. Standard population using the direct method.

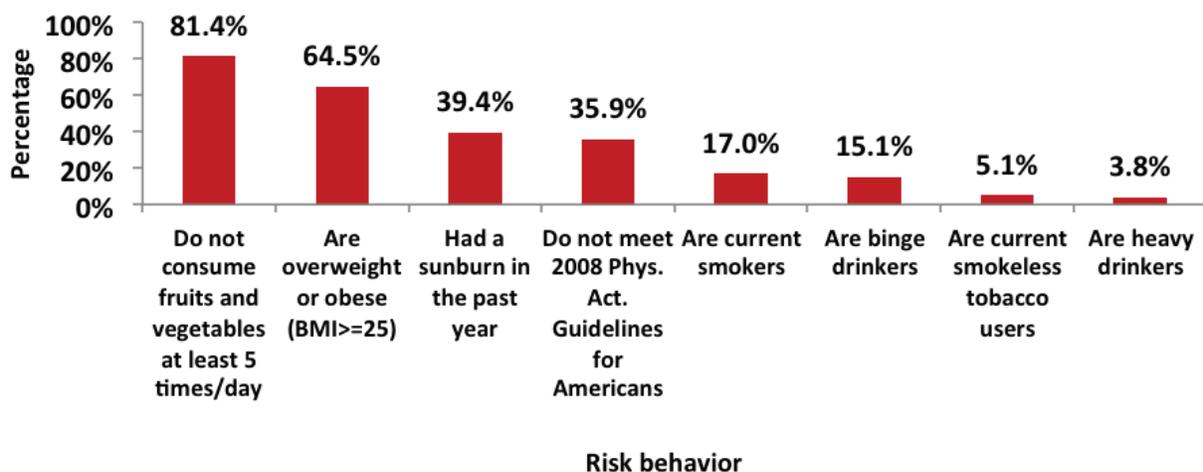
## Cancer Costs

Estimates of the costs of cancer to the state of Kansas are approximately \$2 billion annually. This total includes \$934 million for direct medical costs and \$1.1 billion for indirect mortality costs. These figures were calculated based on national estimates, and took into account the proportion of the state population relative to U.S. population, as well as Kansas' estimated number of new cancer cases and deaths. Nationally, the National Institutes of Health estimates that the overall costs of cancer in the U.S. in 2007 were \$226.8 billion: \$103.8 billion for direct medical costs (total of all health expenditures) and \$123 billion for indirect mortality costs (cost of lost productivity due to premature death).<sup>11</sup>

## Behavioral Risk Factors for Cancer

Modifiable risk factors for cancer include behaviors such as tobacco use, inadequate fruit and vegetable consumption, low levels of physical activity, and excessive alcohol use. In 2009, the majority of Kansas adults (81.4%) did not consume recommended levels of fruits and vegetables (i.e. five or more times a day) and more than one-third (35.9%) did not participate in recommended levels of physical activity according to the 2008 Physical Activity Guidelines for Americans (Figure 3). In addition, about 1 in 6 adults in Kansas are current smokers (17.0%), while approximately the same proportions are binge drinkers (15.1%). Being overweight or obese and excessive sun exposure are additional risk factors for cancer. Nearly 2 in 3 Kansas adults (64.5%) were overweight or obese in 2010, and approximately 2 in 5 (39.4%) reported getting sunburned at least once during the previous year in 2008.<sup>12</sup> In addition, cancer survivors also engage in modifiable risk behaviors. In Kansas, survivors are more likely to be current smokers and to not engage in any leisure time physical activity compared to persons never diagnosed with cancer.<sup>13</sup>

**Figure 3. Percentage of adults who engage in selected cancer risk behaviors, Kansas 2008-2010**



Source: 2008-2010 Kansas Behavioral Risk Factor Surveillance System (BRFSS), Bureau of Health Promotion, Kansas Department of Health and Environment. BMI=body mass index. Binge drinkers are defined as males having 5+ drinks on one occasion in the past 30 days or females having four or more drinks on one occasion in the past 30 days. Heavy drinkers are defined as males consuming an average of more than two drinks per day and females consuming an average of more than one drink per day during the past 30 days. Questions regarding sunburns were asked in the 2008 BRFSS survey. Questions regarding fruit and vegetable consumption and physical activity were asked in the 2009 BRFSS survey. Questions regarding tobacco use, alcohol use, and weight status were asked in the 2010 BRFSS survey. 2008 Physical Activity Guidelines for Americans recommend adults engage in at least 150 minutes a week of moderate-intensity aerobic activity, or 75 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate and vigorous intensity aerobic activity.

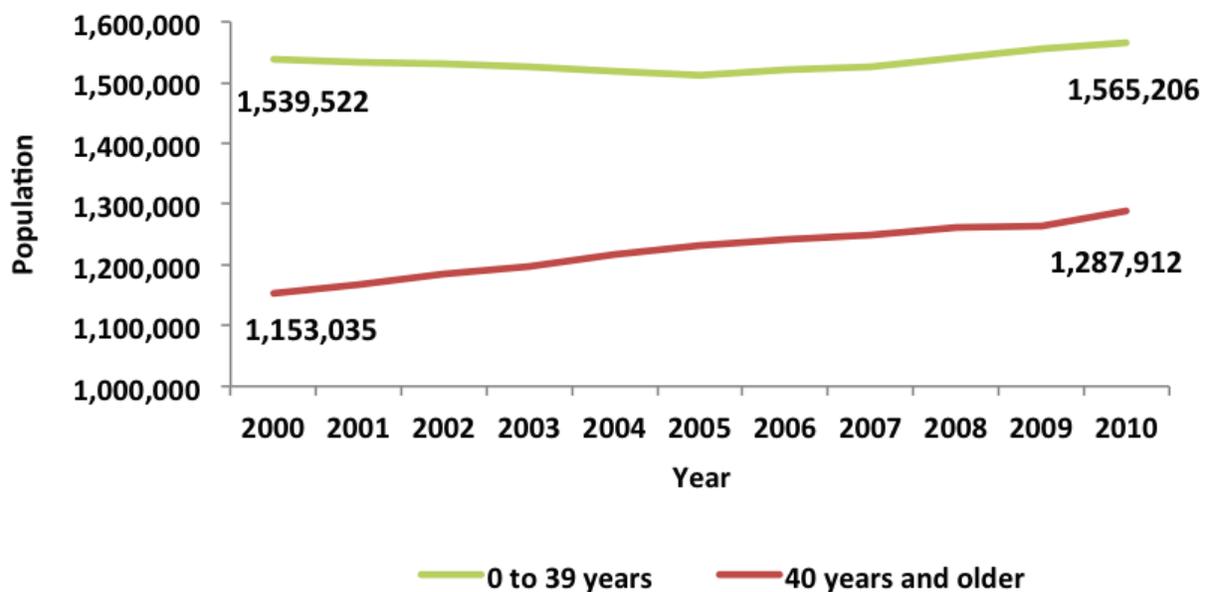
## Health Disparities

While all people have some risk of developing cancer, there are differences in cancer risks and cancer rates among different groups of Kansans. Understanding these differences is important for understanding the story of cancer in the state. Cancer-relevant health disparities by age, income, disability, rural-urban location, and race or ethnic status are highlighted below.

### Age

The 2010 U.S. Census calculated the population of Kansas at more than 2.8 million people, a 6.1 percent increase since 2000. Approximately 75 percent of the state's population is aged 18 years and older, while 13 percent is aged 65 years or older.

Figure 4. Population of Kansas residents aged 0 to 39 years and 40 years and older, by year



Source: 2000-2010 Population for the State of Kansas, Kansas Information for Communities, KDHE.

As Figure 4 indicates, from 2000 to 2010 the population of adults aged 40 years and older in Kansas increased by approximately 12 percent, or by nearly 135,000 people. During this time period, the population of Kansans younger than 40 years old only increased by 2 percent, or by nearly 26,000 people.<sup>14</sup> Cancer risk increases with age. As the population continues to age, the actual number of new cases of cancer can be expected to increase, despite a relatively stable cancer incidence rate.

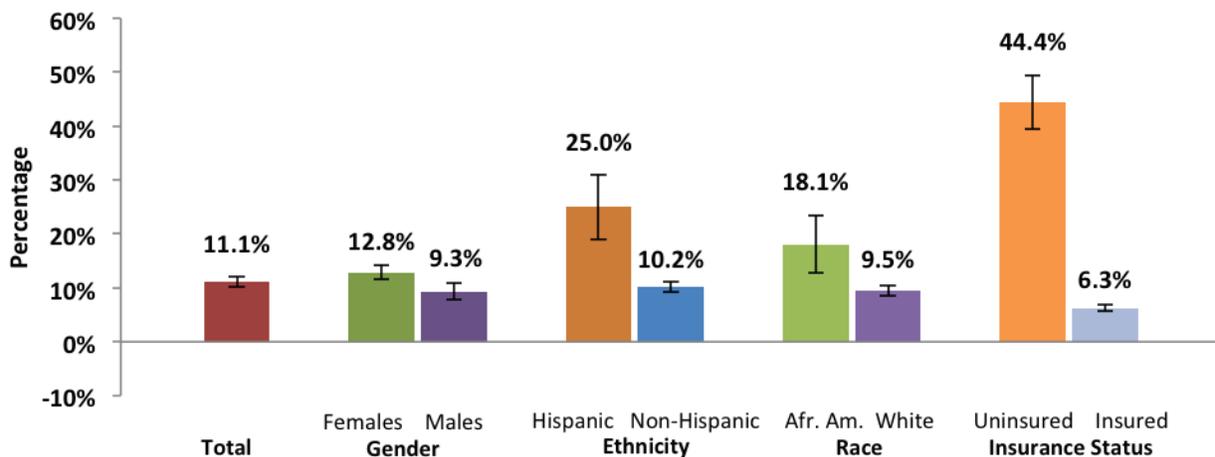
## Income

According to the 2010 American Community Survey, the median household income in Kansas was estimated at \$48,257 in 2010; approximately 13 percent of residents were below the poverty level and nearly 14 percent were uninsured.<sup>15</sup> Lack of health insurance is an important barrier to cancer prevention and early detection; some of the patients who are struggling to pay for their cancer treatment could have prevented their cancers altogether or been diagnosed at an earlier stage had they had better access to health care. For many cancer patients, health insurance status and other financial barriers delay or limit access to treatment and supportive services, and for almost all patients, cancer treatment presents a significant financial burden.<sup>16</sup>

According to the 2010 Kansas Behavioral Risk Factor Survey, 14.3 percent of Kansas adults aged 18 years and older reported not having a personal doctor or health care provider. Additionally, in 2010, 11.1 percent of Kansans reported not seeing a doctor because of cost in the past year (Figure 5). Not seeing a doctor because of cost was more commonly reported among females (12.8%; 95% confidence interval: 11.5-14.1%) compared to males (9.3%; 95% confidence interval: 7.8-10.8%).

Racial and ethnic disparities were also associated with cost barriers to seeing a doctor in the past year. Reports of cost barriers were more common among Hispanics (25.0%; 95% confidence interval: 19.0-30.9%) compared to non-Hispanics (10.2%; 95% confidence interval: 9.2-11.2%). Reports of cost barriers were also more common among African Americans (18.1%; 95% confidence interval: 12.8-23.4%) compared to whites (9.5%; 95% confidence interval: 8.5-10.5%). In addition, reports of cost barriers were more common among uninsured (44.4%; 95% confidence interval: 39.3-49.4%) compared to insured individuals (6.3%; 95% confidence interval: 5.5-7.0%).<sup>17</sup>

**Figure 5. Percentage of adults who could not see doctor because of cost in the past year, Kansas 2010**



Source: 2010 Kansas Behavioral Risk Factor Surveillance System (BRFSS), Bureau of Health Promotion, KDHE.  
Vertical error bars indicate 95% confidence interval for weighted prevalence estimates.

## Disabilities

Kansans with disabilities have a higher prevalence of all chronic conditions compared to Kansans without disabilities, including cancer. In 2009, 19 percent of adult Kansans living with a disability had been diagnosed with cancer; conversely, 39 percent of adult Kansans diagnosed with cancer had a disability. Overall, nearly one in four adults (23%) 18 years and older in Kansas had a disability in 2010.<sup>12</sup> The CDC has recommended that current health and public health care systems respond to both the unique health needs of this disparate population, and the reciprocity between disability and health outcomes.<sup>18</sup>

The unique health needs of adults with disabilities include an increased need for physical accessibility and other disability-related accommodations within health care settings. People with disabilities often do not receive preventive screening services and are less likely to receive standard treatment therapy. For example, Kansas women 40 years and older with disabilities are more likely to have not had a mammogram within the last two years compared to those without disabilities (27.4% vs. 22.4% respectively).

Kansans with disabilities are much more likely to report being in fair or poor health, to be current smokers, and to not meet physical activity minimum requirements.<sup>20</sup> Understanding people with disabilities as a disparate population has a place in cancer prevention, screening, and treatment efforts in several ways. This includes increasing access to cancer screenings for Kansans with disabilities and, if there is a diagnosis of cancer, ensuring that care is appropriate and accommodates the disability.

Current health and public health care systems should also respond to the role that disability plays in health outcomes. Kansans with disabilities encounter social and environmental barriers, including higher unemployment and lower educational levels and incomes than people without disabilities.<sup>20</sup> For example, in 2010, 10 percent of Kansans with disabilities reported needing health care access but were unable to receive it in the past year.<sup>12</sup>

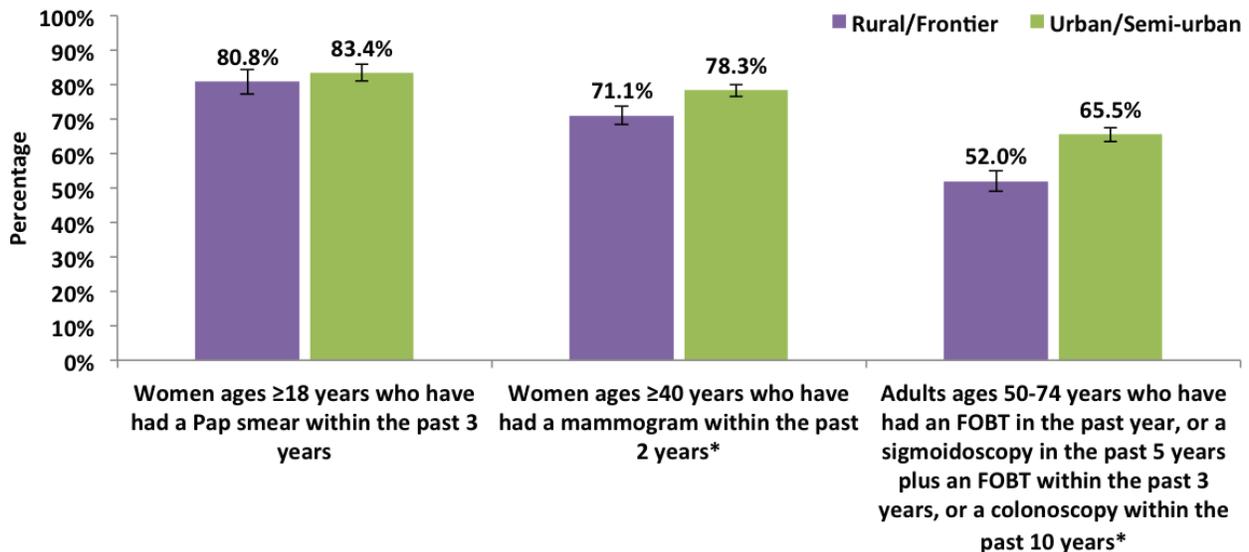
Certainly, this disparity needs to be addressed. However, from a social determinants perspective, it is important to understand how presence of a disability (e.g., underlying health condition) interacts with other factors (e.g., lower income) to influence health outcomes. This approach to disability and public health has implications for survivorship and quality of life.

## Population Density

Population density is calculated as the number of residents per square mile of land. Population density can be categorized as urban (150 or more persons per square mile), semi-urban (40-149 persons per square mile), densely-settled rural (20-39 persons per square mile), rural (6-19 persons per square mile), or frontier (fewer than 6 persons per square mile). The majority (84%) of Kansas' 105 counties are densely-settled rural (n=19), rural (n=38), or frontier (n=31), while the remaining 16 percent are semi-urban (n=12) or urban (n=5).<sup>21</sup>

In 2010, the percentage of Kansas adults who met female breast and colorectal cancer screening guidelines was significantly lower among persons who lived in rural or frontier counties compared to those who lived in urban or semi-urban counties (Figure 6).

**Figure 6. Percentage of adults who have had cancer screenings according to nationally recognized guidelines by population density, Kansas 2010.**



Source: 2010 Kansas Behavioral Risk Factor Surveillance System, KDHE.  
FOBT= fecal occult blood test. Vertical bars indicate 95% confidence intervals.  
\*statistically significant between-group difference

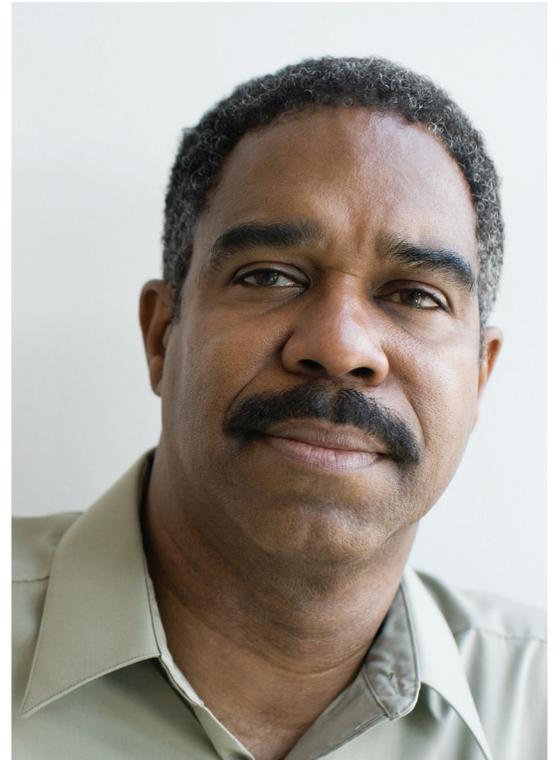
## Race/Ethnicity

About 6 percent of Kansans are African American, and nearly 11 percent are persons of Hispanic or Latino origin.<sup>22</sup> Disparities in the cancer burden among racial and ethnic minorities reflect obstacles to receiving health care services related to cancer prevention, early detection, and high-quality treatment, with poverty as the over-riding factor. In Kansas, race and ethnicity are associated with barriers to accessing care, as the discussion above explained (Figure 5).

According to the American Cancer Society, Cancer Facts and Figures 2011, discrimination is another factor that contributes to racial/ethnic disparities in the cancer burden. Racial and ethnic minorities tend to receive lower-quality health care than whites, even when insurance status, age, severity of disease, and health status are comparable. Social inequalities, including discrimination, communication barriers, and provider assumptions, can affect interactions between patient and physician and contribute to miscommunication or delivery of substandard care.

In addition to poverty and social discrimination, cancer occurrence in a population may also be influenced by cultural and/or inherited factors that decrease or increase risk. While genetic factors may explain some differences in cancer incidence, genetic differences associated with race are thought to make a minor contribution to the disparate cancer burden between different racial/ethnic populations.

According to the Annual Report to the Nation on the Status of Cancer, 1975–2008, among racial and ethnic groups, the highest cancer incidence rates between 2004 and 2008 in the U.S. were among African American men and white women, while cancer mortality rates were highest among African American men and African American women. In Kansas, age-adjusted cancer incidence and mortality rates are significantly higher among African Americans as compared to whites. In particular, age-adjusted incidence and mortality rates for lung, prostate, and colorectal cancers were significantly higher among African American Kansans as compared to white Kansans during the time period 2004-2008.<sup>23</sup>



According to the ACS's Cancer Facts & Figures for Hispanics 2009-2011, Hispanic Americans are less likely to die from cancer than other race/ethnic groups, but have higher rates of cancers related to infections, such as cancers of the stomach, liver, and cervix. In Kansas, age-adjusted cancer incidence and mortality rates are indeed significantly lower among Hispanics than non-Hispanics; however, Hispanic women have significantly higher age-adjusted incidence rates for invasive cervical cancer compared to non-Hispanic women.

Cancer incidence and mortality rates for Kansans of other race categories are not shown because the numbers of cases were insufficient for computing statistically reliable rates for these race groups.

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<sup>8</sup> 2000-2009 Kansas Information for Communities, Bureau of Epidemiology and Public Health Informatics, Kansas Department of Health and Environment. [http://kic.kdhe.state.ks.us/kic/death\\_table.html](http://kic.kdhe.state.ks.us/kic/death_table.html) Accessed 10/26/11.

<sup>9</sup> Surveillance, Epidemiology, and End Results (SEER) Program, SEER\*Stat Database: Mortality - All COD, Aggregated With State, Total U.S. (19 90-2008), National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch. [www.seer.cancer.gov](http://www.seer.cancer.gov) Accessed 10/27/11.

<sup>10</sup> 2000-2008 Kansas Cancer Registry.

<sup>11</sup> Cancer Facts and Figures 2012, American Cancer Society.

<sup>12</sup> 2008-2010 Kansas Behavioral Risk Factor Surveillance System (BRFSS), Bureau of Health Promotion, Kansas Department of Health and Environment. <http://www.kdheks.gov/brfss/index.html> Accessed 10/26/11.

<sup>13</sup> 2009 Cancer Survivorship Module. Kansas Behavioral Risk Factor Surveillance System (BRFSS), Bureau of Health Promotion, Kansas Department of Health and Environment. <http://www.kdheks.gov/brfss/index.html>

<sup>14</sup> 2000-2010 Population for the State of Kansas, Kansas Information for Communities, Kansas Department of Health and Environment.

<sup>15</sup> U.S. Census Bureau, 2010 American Community Survey. <http://factfinder2.census.gov> Accessed 11/15/11.

<sup>16</sup> American Cancer Society, Cancer Facts and Figures 2008; 2012

<sup>17</sup> 2010 Kansas Behavioral Risk Factor Surveillance System (BRFSS), Bureau of Health Promotion, Kansas Department of Health and Environment. <http://www.kdheks.gov/brfss/index.html> Accessed 10/26/11.

<sup>18</sup> Krahn G, Campbell VA. Evolving views of disability and public health: The roles of advocacy and public health. *Disability and Health Journal*. 2011;4:12-18.

<sup>19</sup> Iezzoni, L. (2011). Eliminating health and healthcare disparities among the growing population of people with disabilities. *Health Affairs*, 30(10); 1947-1954.

<sup>20</sup> 2009. Kansas Behavioral Risk Factor Surveillance System (BRFSS), Bureau of Health Promotion, Kansas Department of Health and Environment. <http://www.kdheks.gov/brfss/index.html> Accessed 10/26/11.

<sup>21</sup> Kansas Behavioral Risk Factor Surveillance System (BRFSS), Bureau of Health Promotion, Kansas Department of Health and Environment. <http://www.kdheks.gov/brfss/index.html> Accessed 10/26/11.

<sup>22</sup> U.S. Census Bureau, 2010 Population Finder. <http://www.census.gov/popfinder/> Accessed 11/15/11.

<sup>23</sup> Burden of Cancer in Kansas. (Under preparation). Bureau of Health Promotion, Kansas Department of Health and Environment.



# GOALS AND OBJECTIVES (OVERVIEW)

## Prevention - Prevent cancer from occurring or recurring

1. Reduce tobacco use among adolescents and adults.
2. Increase HPV immunization rates among adolescents.
3. Increase the proportion of adolescents and adults who meet current federal physical activity guidelines.
4. Increase consumption of fruits and vegetables among adolescents and adults.
5. Reduce the proportion of Kansans who report sunburns.
6. Increase the percent of Kansas homes that have installed radon mitigation systems or were built using radon-resistant construction techniques.

## Early Detection and Diagnosis - Detect cancer in its earliest stage through early detection and a timely, definitive diagnosis

1. Increase the percent of Kansas adults using one of the screening options recommended for colorectal cancer based on nationally recognized guidelines.
2. Increase the number of cancer centers that offer patient navigator support services from early detection through treatment and survivorship per American College of Surgeons standards.
3. Increase the percent of women who receive breast cancer screening based on nationally recognized guidelines.
4. Increase the percent of women who receive cervical cancer screening based on nationally recognized guidelines.
5. Increase lung cancer screening for high risk populations, based on the most recent published guidelines.
6. Increase the proportion of men who have discussed with their health care provider whether or not to have a prostate-specific antigen (PSA) test to screen for prostate cancer.
7. Increase the percentage of adults with a family history of cancer who have discussed with their health care provider whether or not to receive genetic counseling.
8. Decrease the time between initial visit with a suspicious finding to a definitive diagnosis and treatment to less than 30 days.

## Treatment - Treat cancer with appropriate, quality care

1. Increase access to palliative care services during and after treatment.
2. Increase participation in cancer treatment clinical trials.

## Survivorship and Quality of Life - Assure the highest quality of life possible for cancer survivors throughout their lives

1. Improve quality of life for cancer survivors, including physical and mental health.
2. Increase the number of cancer centers that work together with patients to develop a comprehensive care summary and follow-up plan to promote physical and mental health after completing treatment.
3. Increase use of hospice services.

**In the following objective sections:**

**Goals** - The major transformations to be achieved through KCP efforts.

**Objectives** - What to accomplish along the way to achieve the goals.

**Evidence Based Strategies** - How to achieve objectives. Strategies are based on research or proven best practices when possible.

**Baseline and Targets** - Benchmarks for measuring progress. Where applicable, targets were based on Healthy People 2020 target setting methods.

**Timeframe** - All targets were modified for a five-year timeframe.



# PREVENTION

## Prevention Goal: Prevent cancer from occurring or recurring

Prevention of cancer and cancer recurrence is an integral part of overall reduction and management of cancer in Kansas. The Kansas Cancer Partnership (KCP) focuses on the environmental aspects of prevention, defining environmental contributors to cancer as any factors that are not directly inherited. This definition is similar to one used in a recent Institute of Medicine report on environmental factors associated with breast cancer.<sup>24</sup> The Kansas Cancer Prevention and Control Plan targets tobacco use, physical activity, nutrition, sun exposure, and Human Papilloma Virus (HPV) immunization. Some prevention objectives will help reduce incidence of both cancers and other chronic diseases. For example, increasing fruit and vegetable consumption is linked to prevention of colorectal cancer as well as prevention of cardiovascular disease and diabetes. The table below lists selected risk factors and their associated cancers.

### Selected Risk Factors and Associated Cancers

|                            |  |
|----------------------------|--|
| Tobacco Use                | Lung, larynx, mouth, esophagus, bladder, kidney, throat, stomach, pancreas, cervix, and acute myeloid leukemia |
| Alcohol consumption        | Mouth, throat, esophagus, larynx, liver, and breast  |
| High-fat diet              | Colon, uterus, and prostate  |
| Lack of physical activity  | Breast, colon, esophagus, kidney, and uterus   |
| Overweight/obesity         | Breast, colon, esophagus, kidney, and uterus   |
| Ultraviolet (UV) radiation | Skin   |

Source: National Cancer Institute (NCI). "What You Need to Know About Cancer: Risk Factors." NIH Publication No. 06-1566.

KCP also recognizes the importance of additional environmental factors such as second hand smoke and radon.<sup>25</sup> The current state plan objectives address some of these risk factors for cancer indirectly. For example, physical activity and nutrition objectives will help reduce obesity, and the tobacco use objective will help reduce exposure to second hand smoke.

### Young Cancer Survivor Promotes Prevention



*Some people think I'm overly cautious when my son and I cover our skin and wear sunscreen, sunglasses and a hat when we're outside. They need to know my story. Although I fit some classic risk factors for skin cancer (fair skin, red hair and green eyes) I never expected a Stage IV metastatic melanoma diagnosis at age 25.*

*The same week of my diagnosis, I found out I was pregnant. My husband and I determined to treat the cancer in a way that would not hurt the baby. During my second trimester, a surgeon removed the tumor along with lymph nodes in my neck and shoulder. After our son was born, I began radiation and chemotherapy. After two more surgeries—and X-rays and PET scans every two months—the cancer cells were gone.*

*My son is an active, healthy boy who loves being outside and I don't want him to go through what I did. I always make sure he's safe from the sun, and I encourage everyone I know to limit their sun exposure.*

## KCP Accomplishments

### Sun Exposure:

- In 2006, 2007 and 2008, partnered with Kansas Coordinated School Health program to promote “Sunwise” skin cancer awareness.
- In 2010, worked with the Environmental Protection Agency to develop Kansas specific skin cancer awareness fact sheet released.
- In 2005 and 2008, added skin cancer questions to BRFSS survey. Data from this telephone survey are used to plan interventions to address behavioral risks and consequent health outcomes, and to monitor progress toward achieving public health program goals and objectives.

### Radon:

- Successful incorporation of radon resistant new construction building codes in the cities of Manhattan, Topeka, and Lawrence.
- In 2008, passage of statewide law required radon information and testing recommendation during sale of all homes.
- In 2010, passage of statewide law required reporting and certification of individuals performing radon measurement or mitigation.

### Secondhand Smoke:

- In 2010 passage of statewide Kansas Indoor Clean Air Act has a tremendous public health impact as Kansans are no longer exposed to second hand smoke in public places.
- In 2011 and 2012, Kansas Indoor Clean Air Act successfully defended.

### Tobacco Use:

- In 2009, KCP’s website [www.cancerkansas.org](http://www.cancerkansas.org) began promoting the Kansas Tobacco Quitline toll-free number, 1-800-QUIT-NOW.
- In 2010, the KDHE Early Detection Works (EDW) program began asking women about household tobacco use and offering Quitline resources. KCP and partners began promotion of Quitline at health fairs, conferences, and other events.
- Quitline monthly calls significantly increased during winter 2010/2011 following KCP promotions, and remains above pre-winter level.

### Disability:

- In 2010, collaborated with the Disability and Health Advisory Board to offer a course on Healthcare Access for Persons with Disabilities.
- In 2010, worked with the National Center on Physical Activity and Disability to create and distribute a poster unique to Kansans with disabilities.



*The KDHE Bureau of Environmental Health operates the Kansas Environmental Public Health Tracking (EPHT) Program funded by the Centers for Disease Control and Prevention (CDC). In 2000, the Pew Environmental Health Commission issued a report that identified an “environmental health gap, a lack of basic information needed to document links between environmental hazards and chronic disease.” The EPHT provides data on environmental exposure, hazards and health outcomes to the public and research community.*

*The Kansas EPHT is part of a national network of states and research centers that adopted a set of nationally consistent data measures to support tracking efforts of funded agencies. The most common environmental health hazards are air and water pollution: asthma, cancer and lead poisoning are the most frequent adverse health effects that concern Americans.*

*CDC requires specific cancers with evidence of possible links to environmental exposures to be included in state and federal EPHT portals. Those cancers include incidence of Acute Myeloid Leukemia, Bladder, Brain and Other Nervous System, Female Breast, Chronic Lymphocytic Leukemia, Kidney, Leukemia, Liver, Lung and Bronchus, Melanoma, Mesothelioma, Non-Hodgkin’s Lymphoma and Thyroid. The Kansas portal is located at <http://keap.kdhe.state.ks.us/epht/portal/home.aspx>. A secure portal site provides researchers with additional data and is scheduled to be operational by 2013.*

## Prevention Objective: Tobacco

### 1. Reduce tobacco use among adolescents and adults

| Measure  | Baseline           | Five Year Target |
|--|--------------------|------------------|
| Percent of Kansas adults aged 18 years and older who currently smoke cigarettes              | 17.0% (2010 BRFSS) | 12%              |
| Percent of Kansas males aged 18 years and older who currently use smokeless tobacco products | 9.8% (2010 BRFSS)  | 8%               |
| Percent of Kansas high school students currently smoke cigarettes                            | 14.4% (2011 YRBS)  | 12%              |
| Percent of male Kansas high school students who currently use smokeless tobacco              | 14.1% (2011 YRBS)  | 8%               |

#### Strategies

1a. Collaborate with Tobacco Free Kansas Coalition to leverage resources for prevention and cessation initiatives related to tobacco use.

1b. Increase awareness of evidence-based practices to decrease use and exposure to tobacco.

1c. Collaborate with Chronic Disease Risk Reduction program to support local efforts to decrease tobacco use and increase awareness of common risk factors to cancer and chronic disease.

1d. Promote increased use of Kansas Tobacco Quitline.

1e. Incorporate steps to target identified disparate populations (age, income, disability, rural-urban location, and race or ethnic status) when implementing recommended strategies.

*According to the CDC, HPV vaccines protect against the types of HPV that most commonly cause cervical cancer.*

## Prevention Objective: Human Papillomavirus (HPV)

### 2. Increase HPV immunization rates among adolescents

| Measure  | Baseline              | Five Year Target |
|--|-----------------------|------------------|
| Percent of Kansas females aged 13 to 17 years who report having been vaccinated with 3 or more doses of the human papillomavirus vaccine | 25.1% (2010 NIS-Teen) | 40%              |
| Percent of Kansas males aged 13 to 17 years who report having been vaccinated with 3 or more doses of HPV vaccine                        | To be determined      | To be determined |

#### Strategies

2a. Assess the knowledge, attitudes and practices of Kansas health care providers as it relates to HPV.

2b. Develop, coordinate, and disseminate tools to promote HPV vaccination based on assessment of Kansas health care providers and in partnership with key partners.

## Prevention Objectives: Physical Activity and Nutrition

### 3. Increase the proportion of adolescents and adults who meet current federal physical activity guidelines

| Measure   | Baseline           | Five Year Target |
|---|--------------------|------------------|
| Percent of Kansas adults aged 18 years and older meet 2008 Physical Activity Guidelines for Americans (i.e. engage in aerobic physical activity of at least moderate intensity for at least 150 minutes/week, or 75 minutes/week of vigorous intensity, or an equivalent combination) | 64.1% (2009 BRFSS) | 67%              |
| Percent of Kansas adolescents in grades 9-12 meet 2008 Physical Activity Guidelines for Americans (i.e. physically active for a total of at least 60 minutes per day on 7 of the past seven days)   | 30.2% (2011 YRBS)  | 35%              |

#### Strategies

- 3a. Systematically disseminate and support implementation of evidence-based programs, policies, and messages to promote physical activity to health coalitions, community leaders, partners, health professionals and worksites. Ensure programs, policies and messages are accessible to Kansans with disabilities.
- 3b. Coordinate across all stakeholders to address elimination of chronic disease risk factors in order to maximize outcomes and improve collaboration across the state.
- 3c. Collaborate with Chronic Disease Risk Reduction program to support local efforts to increase physical activity among adolescents and adults, and increase awareness of common risk factors to cancer and chronic disease.
- 3d. Develop and disseminate tools for a coordinated community-wide physical activity campaign at the local level, incorporating steps to target identified disparate populations (age, income, disability, rural-urban location, and race or ethnic status).
- 3e. Advocate for funding and policies (at local and state level) to support physical activity in schools.

## Prevention Objectives: Physical Activity and Nutrition (cont.)

### 4. Increase consumption of fruits and vegetables among adolescents and adults

| Measure   | Baseline           | Five Year Target |
|---|--------------------|------------------|
| Percent of Kansas adults aged 18 years and older consumed fruits and vegetables five or more times per day  | 18.6% (2009 BRFSS) | 20%              |
| Percent of Kansas adolescents in grades 9-12 ate fruits two or more times per day and ate vegetables three or more times per day during the past seven days | 8.1% (2011 YRBS)   | 10%              |

#### Strategies

- 4a. Systematically disseminate and support implementation of evidence-based programs, policies, and messages to promote healthy diet to health coalitions, community leaders, partners, health professionals and worksites.
- 4b. Coordinate across all stakeholders, including KDHE supported programs, which address elimination of chronic disease risk factors in order to maximize outcomes and improve collaboration across the state.
- 4c. Develop and disseminate tools for a coordinated media campaign at the local level about the importance of fruit and vegetable consumption.
- 4d. Collaborate with Chronic Disease Risk Reduction program to support local efforts to increase consumption of fruits and vegetables among adolescents and adults, and increase awareness of common risk factors to cancer and chronic disease.
- 4e. Advocate for funding and policies (at local and state level) to support consumption of fruits and vegetables in schools.
- 4f. Incorporate steps to target identified disparate populations (age, income, disability, rural-urban location, and race or ethnic status) when implementing recommended strategies.

## Prevention Objective: Ultraviolet (UV) Radiation

### 5. Reduce the proportion of Kansans who report sunburns

| Measure  | Baseline           | Five Year Target |
|--|--------------------|------------------|
| Percent of Kansas adults had a sunburn within the past 12 months | 39.4% (2008 BRFSS) | 37%              |

#### Strategies

- 5a. Include question on Youth Risk Behavior Survey that asks adolescents about sunburn and sun protection behaviors.
- 5b. Support the implementation of evidence-based community level UV protection programs, policies and messages that focus on adolescents, farmers and outdoor workers through partnership with regional health coalitions, local communities and health professionals.

## Prevention Objective: Radon

### 6. Increase the percent of Kansas homes that have installed radon mitigation systems or were built using radon-resistant construction techniques

| Measure  | Baseline                             | Five Year Target |
|--|--------------------------------------|------------------|
| Percent of existing Kansas homes that have radon mitigation systems installed                          | <1% (KDHE Radiation Control Program) | 10%              |
| Number of Kansas cities that have adopted building codes requiring radon-resistant building techniques | 3 (KDHE Radiation Control Program)   | 15               |

#### Strategies

- 6a. Educate homeowners on the techniques for installation of radon mitigation systems.
- 6b. Develop a coordinated media campaign about radon-induced lung cancer and the importance of testing and mitigating homes for radon.
- 6c. Educate realtors about radon exposure and lung cancer, and the role they can play in helping reduce radon-induced lung cancer deaths.
- 6d. Advocate at the state level for the adoption of a state-wide building code for radon.
- 6e. Advocate at the local level for the adoption of new construction building codes for radon (Appendix F of the International Residential Code).



Kansas Radon Program

*Radon is a naturally occurring, odorless, colorless, invisible radioactive gas that can be a health hazard indoors. More than 40% of Kansas homes have elevated radon levels. Radon is the second-leading cause of lung cancer in the U.S., and the first leading cause of lung cancer in people who have never smoked. More than 200 lung cancer deaths per year in Kansas may be linked to indoor radon.*

<sup>28</sup> IOM (Institute of Medicine). 2010. Breast cancer and the environment: A life course approach. Washington, DC: The National Academies Press.

<sup>29</sup> <http://www.kdheks.gov/radiation/radon.htm>

## EARLY DETECTION AND DIAGNOSIS

**Early Detection and Diagnosis Goal: Detect cancer in its earliest stage through early detection and a timely, definitive diagnosis**

Regularly scheduled cancer screening helps detect the disease at its earliest stages. This is important because premalignant abnormalities may be removed or treated, and treatment may be more effective, halting or slowing progression of disease. Thus, early detection can improve survival and decrease mortality. Not all cancers are preventable, but in some cancers that are more common in the Kansas population, early detection and treatment per recommended guidelines may help save lives.

Screening barriers include confusion about screening guidelines and knowledge gaps regarding recent advances in early detection. For example, prostate cancer screening guidelines are changing, and lung cancer screening is now recommended for high risk populations. In addition, some Kansans have limited financial resources to pay for early detection services, deductibles, or co-payments. At the time this plan was developed, not all health insurance policies covered screening tests, and programs designed to fill unmet need did not have enough funds to provide early detection services for all eligible Kansans.

### ***Women Share More than Friendship***



*Jenny and Patty have shared a 50-year friendship from school days to marriages, births and the ups and downs of everyday life. What they didn't expect to share was breast cancer. Both women are survivors - Patty was diagnosed in June of 2001 and Jenny in March of 2009. Both women found their own lumps in their breasts and both sought immediate diagnosis. As they have supported each others' life journeys, they have discussed the tremendous differences just eight years made in diagnosis, surgery and treatment.*

*Jenny learned a lot through Patty's prior experience with breast cancer. "She got it first so she could help me on down the line," jokes Jenny. Indeed, Patty became Jenny's advocate, going to appointments with her and answering her questions and concerns. "It's great to have such a close friend who completely understands what you are going through. It has made this whole thing easier for me," Jenny affirmed.*

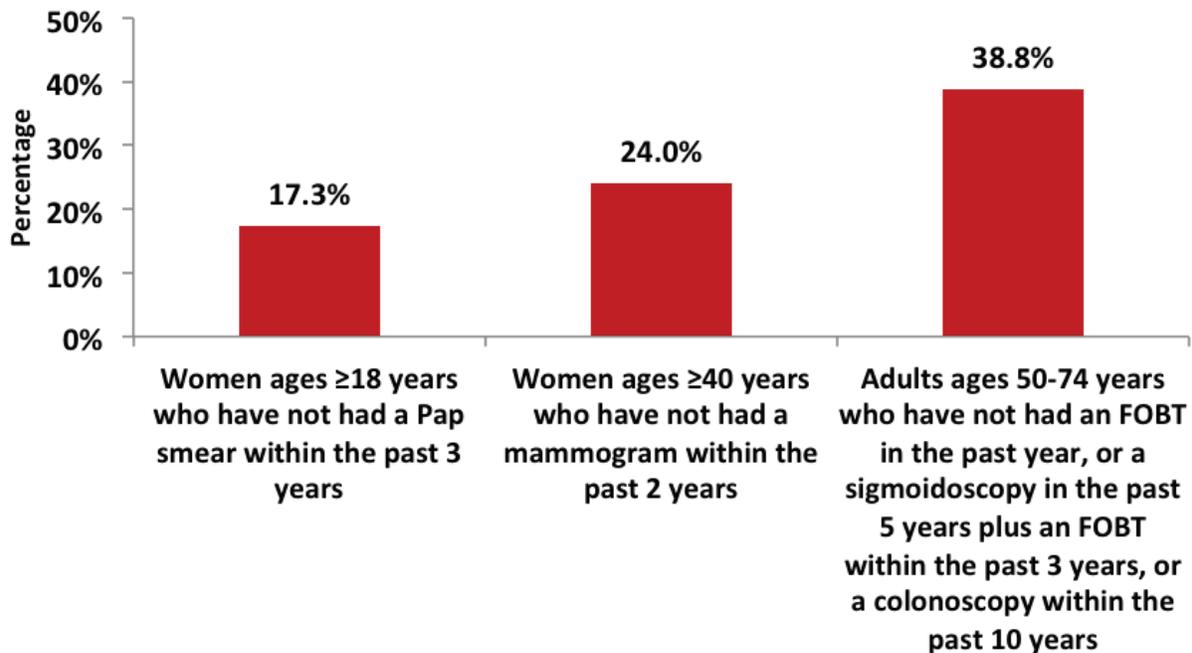
*Jenny was diagnosed with Stage II breast cancer. Because cancer was diagnosed through biopsy she was able to have just one surgery in which the tumor and several lymph nodes were removed. Maintaining an active lifestyle was critical to Jenny's quality of life. Chemotherapy was accompanied by anti-nausea and anti-anxiety drugs and treatments were scheduled so that she could fully participate in one son's wedding and another's graduation. She continued to teach school full time.*

*Jenny was set to begin radiation treatment, but as part of her cancer risk assessment underwent genetic testing. Results revealed that she has the BRCA2 gene, raising her risk of cancer later in life. She was already aware of the risk of cancer recurrence and, based on the genetic testing results, decided to undergo a complete mastectomy and hysterectomy to lower her risk and prolong her life.*

*Both women lament that their breast cancer treatment brought on early menopause, mood swings, darkening of their fingernails and toenails, swelling in their feet and other annoying side effects. They are aware of their risk of a cancer recurrence especially in their lungs, bones and brains. But both women are determined to not let cancer define their lives. Both are advocates of self breast exams. "If you find a lump, do something about it," Patty said. "And don't wait," added Jenny.*

The figure below shows the percentage of adult Kansans who have not had screening for cervical, breast, or colorectal cancer according to nationally recognized guidelines. There are currently no Kansas baseline data for lung cancer screenings. There is also a need to develop data sources regarding prostate cancer and genetic counseling for people with family history of cancer.

**Figure 7. Percentage of adults who have not had cancer screenings according to nationally recognized guidelines, Kansas 2010**



Source: 2009-2010 Kansas Behavioral Risk Factor Surveillance System (BRFSS), Bureau of Health Promotion, KDHE  
FOBT=fecal occult blood test. PSA=prostate specific antigen

In 2006, the Kansas LIFE Project engaged Kansas cancer patients and caregivers in a focus group process called Listen and Learn. Participants shared their personal experiences about their cancer journeys. This information helped the Kansas Cancer Partnership (KCP) develop a model for patient navigation. In addition, KCP piloted a patient navigator project in 2007 at Via Christi Hospital in Wichita.

Information from the focus group and pilot project was used as the basis for a Cancer Patient Navigation Program Toolkit. The toolkit describes patient navigators as health care professionals

#### **Key Accomplishments**

- In 2007, the Colorectal Cancer Awareness project began with Centers for Disease Control and Prevention funds. The project strengthened KCP partnerships with local cancer centers and other agencies and health care providers. Media and screening events served to raise awareness of colon cancer screening. The campaign has been repeated annually.
- In 2007, KCP worked with the Washburn School of Nursing to develop a Self-Assessment Cancer Screening Tool for the KCP website. The Tool includes lifestyle and family history questions and was designed to improve communication between physicians and patients. It was updated in 2008 to include questions about radon exposure.
- In 2011, more than 50 professionals attended the inaugural Kansas Patient Navigation conference, *Patient Navigation: Paving the Way in Cancer Care*. National and local presenters provided information and resources to establish and enhance patient navigation programs.

whose primary focus is to assist cancer patients, caregivers, and families in “bridging the gaps” within the health care system and to decrease barriers to care through effective use of resources. Patient navigators can effectively help cancer patients find their way through complex health care systems that often leave patients and their family members feeling confused, lost, or alienated. By early 2012 the KCP Patient Navigation Workgroup Chair identified 19 Cancer Patient Navigation positions in Kansas.

## Early Detection and Diagnosis Objective: Colorectal Cancer

### 1. Increase the percent of Kansas adults using one of the screening options recommended for colorectal cancer based on nationally recognized guidelines

| Measure   | Baseline           | Five Year Target |
|---|--------------------|------------------|
| Percent of Kansas adults aged 50-74 years old have had a Fecal Occult Blood Test (FOBT) in the past year, or a sigmoidoscopy in the past 5 years plus FOBT within the past 3 years, or a colonoscopy within the past 10 years | 61.2% (2010 BRFSS) | 65%              |

#### Strategies

- 1a. Develop messaging for use by the media and providers to increase colorectal cancer screening rates.
- 1b. Develop plans to disseminate information to populations at higher risk for colorectal cancer and the need for early detection.
- 1c. Support community screening days or awareness days.
- 1d. Work with existing programs to breakdown financial barriers, including working with employers for adequate time off to take advantage of screening opportunities in the community.
- 1e. Develop state support for a colorectal screening program through the Early Detection Works (EDW) program in the State Legislature.
- 1f. Incorporate steps to target identified disparate populations (age, income, disability, rural-urban location, and race or ethnic status) when implementing recommended strategies.

## Early Detection and Diagnosis Objective: Patient Navigator Support

### 2. Increase the number of cancer centers that offer patient navigator support services from early detection through treatment and survivorship per American College of Surgeons standards

| Measure            | Baseline         | Five Year Target |
|--------------------|------------------|------------------|
| Data not available | To be determined | To be determined |

#### Strategies

- 2a. Identify a data source to establish a baseline and five year target for this objective.
- 2b. Build on the success of the previous patient navigation conference and hold additional conferences to encourage development of patient navigation programs in hospitals, community-based organizations, cancer centers, and medical clinics to serve all patients, especially in low-income populations.
- 2c. Collect and analyze data on existing patient navigation programs in order to develop a plan to expand and create more patient navigation programs in Kansas.
- 2d. Work with the Insurance Commissioner’s office to support reimbursement for patient navigation services.

## Early Detection and Diagnosis Objective: Breast Cancer

### 3. Increase the percent of Kansas women who receive breast cancer screening based on nationally recognized guidelines

| Measure  | Baseline           | Five Year Target |
|--|--------------------|------------------|
| Percent of Kansas females aged 40 years and older have had a mammogram within the past two years | 76.0% (2010 BRFSS) | 80%              |

#### Strategies

- 3a. Support increased state funding for the EDW program through the State Legislature.
- 3b. Encourage continued private funding of the EDW program.
- 3c. Develop plan to improve screening behaviors for women with higher probability of developing breast cancer at an early age.
- 3d. Develop messaging for use by the media and providers to increase breast cancer screening rates, incorporating steps to target identified disparate populations (age, income, disability, rural-urban location, and race or ethnic status).
- 3e. Develop community screening days, working with existing programs to break down financial and disability-related barriers, including working with employers for adequate time off to take advantage of screening opportunities in the community.

## Early Detection and Diagnosis Objective: Cervical Cancer

### 4. Increase the percent of Kansas women who receive cervical cancer screening based on nationally recognized guidelines

| Measure   | Baseline           | Five Year Target |
|---|--------------------|------------------|
| Percent of Kansas females aged 18 years and older have had a Pap test within the past three years | 82.7% (2010 BRFSS) | 87%              |

#### Strategies

- 4a. Support increased state funding for the EDW program through the State Legislature.
- 4b. Develop plan to improve screening behaviors for women with higher probability of developing cervical cancer at an early age.
- 4c. Develop messaging for use by the media and providers to increase cervical cancer screening rates, incorporating steps to target identified disparate populations (age, income, disability, rural-urban location, and race or ethnic status).
- 4d. Encourage communities and employers to allow adequate time off to take advantage of screening programs.

## Early Detection and Diagnosis Objective: Lung Cancer

### 5. Increase lung cancer screening for high risk populations, based on the most recent published guidelines

| Measure            | Baseline         | Five Year Target |
|--------------------|------------------|------------------|
| Data not available | To be determined | To be determined |

#### Strategies

5a. Provide continuing education to health care practitioners, including primary care providers, to increase awareness of screening guidelines and encourages the implementation of evidence-based practice changes to identify high risk individuals who are candidates for screening.

5b. Develop a methodology to measure prevalence of lung screening among at-risk Kansans.

5c. Update educational curricula in schools of medicine, nursing and health professions to include information on evidence-based approach to lung cancer screening along with guidelines for screening of other cancers.

5d. Develop a model 'tool kit' to assist health care systems and nurse navigators in the development of lung cancer screening programs.

5e. Promote the implementation of lung cancer screening programs within health systems throughout Kansas.

5f. Create and implement a media campaign that will serve to inform the public of the new screening standard.

5g. Identify appropriate venues for lung cancer screening education opportunities and provide educational materials that are targeted for smokers considered high risk.

## Early Detection and Diagnosis Objective: Prostate Cancer

*60.4 percent of African American men ages 40 years and older in Kansas have had a PSA screening within the past two years (2010 BRFSS)*

### 6. Increase the proportion of men who have discussed with their health care provider whether or not to have a prostate-specific antigen (PSA) test to screen for prostate cancer

| Measure            | Baseline         | Five Year Target |
|--------------------|------------------|------------------|
| Data not available | To be determined | To be determined |

#### Strategies

6a. Develop appropriate messaging for prostate cancer early detection, including messaging for disparate populations (age, income, disability, rural-urban location, and race or ethnic status).

6b. Include question on BRFSS that asks men ages  $\geq 40$  years if they have discussed with their health care provider whether to have a PSA test to screen for prostate cancer.

## Early Detection and Diagnosis Objective: Genomics

### 7. Increase the percentage of adults with a family history of cancer who have discussed with their health care provider whether or not to receive genetic counseling

| Measure            | Baseline         | Five Year Target |
|--------------------|------------------|------------------|
| Data not available | To be determined | To be determined |

#### Strategies

7a. Develop appropriate messaging to encourage understanding of family history and how genetic counseling can help plan for early detection of cancer.

7b. Include question on BRFSS that asks adults with a family history of cancer if they have discussed with their health care provider whether or not to receive genetic counseling.

7c. Assess availability of genetic counseling services.

## Early Detection and Diagnosis Objective: Cross-Cutting

### 8. Decrease the time between initial visit with a suspicious finding to a definitive diagnosis and treatment to less than 30 days

| Measure            | Baseline         | Five Year Target |
|--------------------|------------------|------------------|
| Data not available | To be determined | To be determined |

#### Strategies

8a. Include “amount of time from initial visit with a suspicious finding to diagnosis” and “amount of time from diagnosis to treatment” as part of all quality indicators.

8b. Develop and disseminate provider practice guidelines to ensure appropriate follow up for all abnormal mammograms.

8c. Develop guidelines for critical items which should be included in “diagnosis information” provided to cancer patients.

8d. Monitor other states’ model programs for adding screening to National Program of Cancer Registries data, and potential usefulness of these data for evaluating this objective.



# TREATMENT

Treatment Goal: Treat cancer with appropriate, quality care

Once cancer is diagnosed, prompt and thorough treatment is essential for prolonging the patient's survival and improving the patient's quality of life. As varied as the individual, cancer treatment can entail surgery, radiation, chemotherapy and any combination thereof. Treatments and rehabilitation strategies have improved over the years and clinical trials may offer the latest advancements and potentially more effective treatment options.

Cancer patients may need assistance understanding treatment options available to them, and patient navigators can help with this process. (For more information on patient navigators, see the section on early detection and diagnosis.) The National Comprehensive Cancer Network offers Guidelines for Patients™ to help patients with cancer speak with their oncologists about their best treatment options. These guidelines contain reader-friendly information on state of the art cancer treatment information. Eight guidelines are available to cancer patients for the following types of cancer: breast, lung, ovarian, prostate, chronic myelogenous leukemia, malignant pleural mesothelioma, melanoma, and multiple myeloma. The National Cancer Institute also offers treatment information geared toward patients, as well as information on clinical trials.

Quality, compassionate care for people facing a serious illness is an essential component of treatment. Palliative care is a team-oriented approach to providing this care. This approach includes expert medical care, pain management, and emotional and spiritual support expressly tailored to the patient's needs and wishes. Support is provided to the patient's loved ones as well. The locations of physicians and nurses who are certified as providers of hospice and palliative services are illustrated on the Kansas map included.

## Key Accomplishments

- KCP members worked diligently to build relationships with cancer centers and clinics across the state. KCP also established relationships with 13 Kansas hospitals accredited by the American College of Surgeons' Commission on Cancer.
- The University of Kansas Cancer Center applied for designation by the National Cancer Institute, the gold standard for cancer program, in recognition of innovative research and excellence in patient care.
- Between 2006 and 2010, the State of Kansas invested \$5 million per year to promote this effort and build top notch research and treatment facilities for Kansas cancer patients.

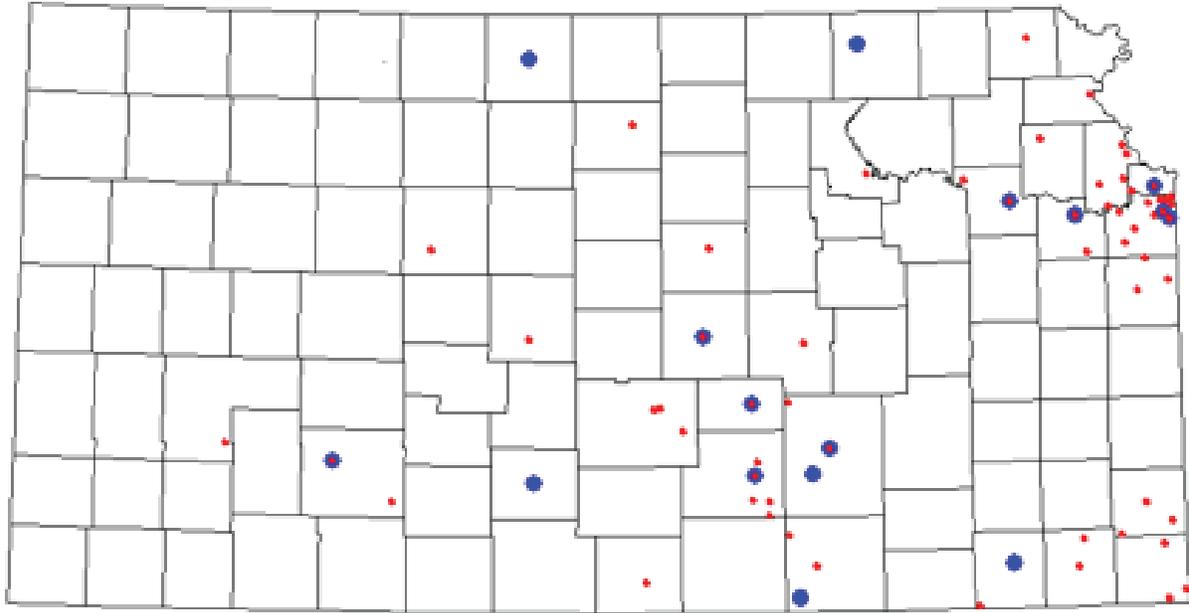
## Palliative Care

The National Hospice and Palliative Care Organization describes palliative care:

*"Palliative care extends the principles of hospice care to a broader population that could benefit from receiving this type of care earlier in their illness or disease process. No specific therapy is excluded from consideration. An individual's needs must be continually assessed and treatment options should be explored and evaluated in the context of the individual's values and symptoms. Palliative care, ideally, would segue into hospice care as the illness progresses."*

*(See Early Detection and Diagnosis for description of Patient Navigation; See Survivorship and Quality of Life for description of hospice care)*

## Palliative Care Providers, Kansas, 2011



● Physician(s)    ● Nurse(s)

Source: American Academy of Hospice and Palliative Medicine.  
Source: National Board for Certification of Hospice and Palliative Nurses.

- *See Early Detection & Diagnosis for objective on Patient Navigation*
- *See Survivorship & Quality of Life for objective on hospice*

### Treatment Objective: Palliative Care

#### 1. Increase access to palliative care services during and after treatment

| Measure  | Baseline   | Five Year Target |
|--|--|------------------|
| Number and geographic dispersion of physicians in Kansas who are members of the American Academy of Hospice and Palliative Medicine and/or are certified in the sub-specialty, either by one of the ten co-sponsoring boards of the American Board of Medical Specialties or the American Board of Hospice and Palliative Medicine | 33 (2011 The American Academy of Hospice and Palliative Medicine)            | To be determined |
| Number and geographic dispersion of nurses in Kansas are Certified Hospice and Palliative Nurses   | 136 (2011 National Board for Certification of Hospice and Palliative Nurses) | To be determined |

#### Strategies

1a. Provide continuing education to health care practitioners, including primary care providers, to increase knowledge and practice of palliative care during and after treatment.

## Treatment Objective: Clinical Trials

### 2. Increase participation in cancer treatment clinical trials

| Measure   | Baseline           | Five Year Target |
|---|--------------------|------------------|
| Percent of Kansas adults aged 18 years and older had a health care provider ever talk to them about participating in a clinical trial   | 3.7% (2007 BRFSS)  | 4%               |
| Among those who were ever told by a doctor that they have cancer and whose health care provider ever talked to them about participating in a clinical trial, the percent of adults aged 18 years and older enrolled in a cancer clinical trial managed by their Kansas health care provider | 32.5% (2007 BRFSS) | 34%              |

#### Strategies

- 2a. Convene representatives of all Kansas facilities offering cancer treatment trials to explore opportunities for collaboration regarding effective promotion, recruitment and retention strategies.
- 2b. Identify strategies to use national media resources to increase awareness of participation in cancer prevention and treatment trials and resources for accessing trials available in Kansas.
- 2c. Advocate for statewide policy that would expand self-funded insurance coverage to include treatment to patients enrolled in cancer clinical trials.
- 2d. Incorporate steps to target identified disparate populations (age, income, disability, rural-urban location, and race or ethnic status) when implementing recommended strategies.





# SURVIVORSHIP AND QUALITY OF LIFE

Overall Survivorship Goal: Assure the highest quality of life possible for cancer survivors throughout their lives

Cancer survivors are growing in numbers as prevention, screening, early diagnosis, and treatment improve. There were 65,524 cancer survivors among the Kansans who were diagnosed with malignant cancer between 1998 and 2008. In Kansas in 2009, 6.5 percent of adults reported ever being diagnosed with cancer (excluding skin cancer).<sup>27</sup> Survivors' quality of life and quality of care continue to play an important role in addressing the burden of cancer in Kansas. In the last twenty-five years we have thankfully seen a dramatic improvement in the treatment in childhood cancer, and currently the overall cure rate is 82 percent. This means that about 1 out of every 640 adults is a survivor of childhood cancer. It is important to note that 67 percent of childhood cancer survivors will develop at least one late effect and 25% of these will be severe or life-threatening.<sup>28,29,30</sup> Health care providers and survivors can learn more about how to manage the late effects of childhood and adult cancers at [www.survivorshipguidelines.org](http://www.survivorshipguidelines.org).

## LIVESTRONG™

*"Survivorship begins at diagnosis, the moment your battle with cancer begins, and continues through your treatment and beyond. A survivor is anyone battling cancer: the person with cancer, a spouse or partner, a child, a friend, a parent or a caregiver."*

- Resource for Cancer Survivors, Lance Armstrong Foundation Survivorship Notebook

People who have ever been diagnosed with cancer tend to have risk factors for cancer recurrence, including current smoking and not engaging in leisure time physical activity. In 2009, Kansas cancer survivors were significantly more likely to self-report fair/poor health, to report more physically and emotionally unhealthy days in the past month, and/or report more days where poor health interfered with usual activities. In addition, compared to those who did not report ever being diagnosed with cancer, Kansas cancer survivors were significantly more likely to be older, female, and/or retired. They were also less likely to have more than high school education and/or to be Hispanic than those who did not report ever being diagnosed with cancer. This information can be used to help develop and evaluate interventions aimed at improving the quality of life of cancer survivors.

When the disease is terminal, hospice services, including palliative care, quality of medical delivery, acceptance and assistance with grief processes, and culturally sensitive and compassionate support, are all critical. Terminally ill patients may access hospice services, regardless of age, religion, race, or type of illness. Most private insurance plans, managed care organizations, Medicaid, and Medicare cover hospice services.

### Hospice Care

*The National Hospice and Palliative Care Organization describes Hospice care as follows:*

*"At the center of hospice and palliative care is the belief that each of us has the right to die pain-free and with dignity, and that our families will receive the necessary support to allow us to do so."*

*"Hospice focuses on caring, not curing and, in most cases, care is provided in the patient's home. Hospice care also is provided in freestanding hospice centers, hospitals, and nursing homes and other long-term care facilities."*



The Institute of Medicine (IOM) recommends all survivors have a treatment summary and survivorship care plan to describe each survivor's treatment and plan for ongoing follow-up. The increasing number of cancer survivors underscores the need for medical and public health professionals to address the potential long-term and late effects of cancer on survivors' physical and psychosocial well-being.<sup>31</sup> Cancer patients and survivors often need support to deal with issues such as finances, insurance, employment, transportation and simply the tasks of daily living. In 2006, the Kansas LIFE Project engaged Kansas cancer patients and caregivers in Listen and Learn focus groups. Information that participants shared about their cancer journeys was used to identify needed resources, such as TLC in the Workplace<sup>®</sup> from Hospice and Palliative Care of Greensboro, North Carolina. The Kansas Cancer Partnership (KCP) expanded on the TLC approach, and developed Employee Illness and Survivorship in the Workplace (EISW) training curriculum to specifically address workplace issues for cancer survivors and others with serious chronic illness.

Cancer survivors also benefit from coordinated care, and promotion of 1) healthy behaviors (e.g., smoking cessation and physical activity) to reduce the risk for new or recurrent cancer and 2) early detection to increase the likelihood of survival with new or recurrent cancer.<sup>31</sup> Strategies outlined in previous sections that address prevention and early detection are relevant to cancer survivors.



*"Throughout my ordeal with cancer I have been able to maintain my quality of life."*



*With cancer diagnosed three times in eight years, Barbara knows she will live with it the rest of her life. "I am comfortable with my mortality," the retired teacher said.*

*Barbara's cancer journey began in 2001 with cancer diagnosed in her right breast, which was removed along with 19 lymph nodes. In 2003, her left breast was removed when a pre-cancerous lump was found. In 2007, a general feeling of tiredness, bladder problems and distended abdomen led to a diagnosis of Stage IV ovarian cancer.*

*Subsequently, Barbara had a total hysterectomy with removal of her ovaries. In addition, a colostomy was performed, followed by chemotherapy for seven months, then a surgery to remove tumors from her liver. Her spleen also was removed and she has since had numerous rounds of chemotherapy. She expects to have more surgery in the future as well.*

*Barbara thinks of cancer as a chronic disease that she lives with each day. She is now an advocate for fellow cancer survivors and states, "We all need someone else to talk to who knows what we're going through."*

### Key Accomplishments

- *Provided Pain Management/End-of-Life Workshop for legislators and health professionals in 2004 and 2009.*
- *“Caring Conversations” health care directive training in 2006 for select KCP members served as impetus for development of the EISW module to supplement TLC in the Workplace® training.*
- *Added Survivorship questions to BRFSS in 2007 and 2009. Data from this telephone survey helps in planning interventions to address behavioral risks and their consequent health outcomes, as well as monitoring progress toward achieving public health program goals and objectives.*
- *EISW training piloted in 2008 for 125 state employees. EISW won first place at the 2009 National Comprehensive Cancer Control Program Poster session as “an innovative project with an outstanding contribution to cancer programs in the nation.” In 2010, EISW was co-sponsored by KDHE and the Center for Practical Bioethics (CPB) for 11 more employers to take to their workforces. CPB posted a 15-minute related podcast on their website as well as highlighted the training in their weekly electronic E-Alert. The E-Alert posting resulted in 159 downloads, thereby expanding awareness of this critical workplace issue. CPB continues promotion of this course with large employers in the Kansas City area.*
- *In 2009, a representative of the American Society of Clinical Oncologists (ASCO) provided training to KCP members on use of ASCO Patient Treatment Records to document cancer treatment histories for patients and their primary physicians. Subsequently, a pilot project was conducted at two Topeka hospitals to evaluate use of these forms. Similar forms were examined by KCP members and general consensus was that the forms can be lengthy and cumbersome and until documentation of this information is a billable service, widespread use will be limited.*
- *Supported establishment of the KU Wichita Breast Cancer Survivorship Clinic in conjunction with Susan G. Komen for the Cure. The clinic serves women in the metro area and central and western Kansas. The clinic opened in late 2009 and marketing of services began in 2010. Efforts are ongoing to educate family practice physicians and other health care providers about services available through the Clinic.*

## Survivorship and Quality of Life Objective: Physical and Mental Health

### 1. Improve quality of life for cancer survivors, including physical and mental health

| Measure  | Baseline           | Five Year Target |
|--|--------------------|------------------|
| Among adults aged 18 years and older who have ever been diagnosed with cancer, the percent who reported that poor physical or mental health kept them from doing usual activities, such as self-care, work, or recreation, on 14 or more of the past 30 days | 20.2% (2009 BRFSS) | 19%              |

#### Strategies

- 1a. Systematically disseminate and support implementation of evidence-based programs, policies, and messages to improve quality of life of cancer survivors to health coalitions, community leaders, health professionals, and worksites.
- 1b. Improve nutrition and physical activity behaviors among cancer survivors.
- 1c. Expand availability of workshops (e.g., EISW) in the workplace statewide and among existing health coalitions.
- 1d. Collaborate with chronic disease prevention programs to leverage resources for promoting healthy behaviors and reducing health risk behaviors among cancer survivors.
- 1e. Incorporate steps to target identified disparate populations (age, income, disability, rural-urban location, and race or ethnic status) when implementing recommended strategies.

## Survivorship and Quality of Life Objectives: Quality of Care

### 2. Increase the number of cancer centers that work together with patients to develop a comprehensive care summary and follow-up plan to promote physical and mental health after completing treatment

| Measure                  | Baseline         | Five Year Target |
|--------------------------|------------------|------------------|
| Survey to Cancer Centers | To be determined | To be determined |

#### Strategies

2a. Increase awareness and use among primary care and oncology providers of survivor care plans that include patients in plan development and address both physical and mental health.

2b. Educate cancer patients/survivors about the need for survivor care plans.

2c. Increase the number of patient navigators who include patients in the development of survivor care plans that address physical and mental health.

2d. Develop a methodology for evaluating this objective.

### 3. Increase use of hospice services

| Measure   | Baseline                                  | Five Year Target |
|---|---|------------------|
| Average hospice days per cancer patient in Kansas during the last month of life | ~10 (2011 Dartmouth Atlas of Health Care) | ≥14              |

#### Strategies

3a. Make available Advance Care Planning tools and resources for those with advanced illness and Goals of Care, incorporating steps to target identified disparate populations (age, income, disability, rural-urban location, and race or ethnic status).

<sup>26</sup> 1998-2008 Kansas Cancer Registry data base, Bureau of Health Promotion, Kansas Department of Health and Environment.

<sup>27</sup> 2009 Cancer Survivorship Module. Kansas Behavioral Risk Factor Surveillance System (BRFSS), Bureau of Health Promotion, Kansas Department of Health and Environment. <http://www.kdheks.gov/brfss/index.html>

<sup>28</sup> Ganz, P.A., Casillas, J. and Hahn, E.E., Ensuring quality care for cancer survivors: implementing the survivorship care plan. *Semin Oncol Nurs*, 2008. 24(3): p. 208-17.

<sup>29</sup> Hewitt, M., Weiner, S.L. and Simone, J.V., eds. *Childhood Cancer Survivorship: Improving Care and Quality of Life*. 2003, The National Academies Press: Washington, D.C.

<sup>30</sup> Long-term follow-up care for pediatric cancer survivors. *Pediatrics*, 2009. 123(3): p. 906-15.

<sup>31</sup> Centers for Disease Control and Prevention. Cancer survivors-United States, 2007. *Morbidity and Mortality Weekly Report (MMWR)* 2011;60:269-272.

## STATE PLAN EVALUATION

The evaluation plan for the Kansas Comprehensive Cancer Prevention and Control State Plan 2012-2016 is outlined below. Existing data sources, including, but not limited to, Kansas Vital Statistics, the Kansas Cancer Registry (KCR), the Kansas Behavioral Risk Factor Surveillance System (BRFSS), and the Kansas Youth Risk Behavior Survey (YRBS) will be routinely monitored to track progress of long-term (5-10 years) and intermediate (2-5 years) outcomes of the state plan. In addition, KCP workgroups will develop more focused evaluation plans to assess short-term outcomes ( $\leq 1$  year) related to activities addressing selected annual priority objectives.

**Table 2. Kansas Cancer Prevention and Control State Plan 2012-2016 Evaluation Plan**

| Long-term Outcomes (5-10 years)                   |                 |                  |                         |            |
|---|-----------------|------------------|-------------------------|------------|
| State-level Indicator                             | Baseline (Year) | Five-Year Target | Data Source             | Time Frame |
| <b>Mortality</b>                                  |                 |                  |                         |            |
| Age-adjusted cancer mortality rate.               | 172.9 (2009)    | 164.2            | Kansas Vital Statistics | Annually   |
| Age-adjusted lung cancer mortality rate.          | 52.2 (2009)     | 49.6             |                         |            |
| Age-adjusted female breast cancer mortality rate. | 21.4 (2009)     | 20.3             |                         |            |
| Age-adjusted cervical cancer mortality rate.      | 1.9 (2009)      | 1.8              |                         |            |
| Age-adjusted colorectal cancer mortality rate.    | 15.4 (2009)     | 14.6             |                         |            |
| Age-adjusted prostate cancer mortality rate.      | 19.7 (2009)     | 18.7             |                         |            |
| Age-adjusted melanoma mortality rate.             | 3.1 (2009)      | 2.9              |                         |            |
| <b>Incidence</b>                                  |                 |                  |                         |            |
| Age-adjusted cancer incidence rate.               | 460.1 (2008)    | 437.1            | Kansas Cancer Registry  | Annually   |
| Age-adjusted lung cancer incidence rate.          | 62.1 (2008)     | 59.0             |                         |            |
| Age-adjusted female breast incidence rate.        | 120.3 (2008)    | 114.3            |                         |            |
| Age-adjusted cervical cancer incidence rate.      | 5.6 (2008)      | 5.3              |                         |            |
| Age-adjusted colorectal cancer incidence rate.    | 46.4 (2008)     | 44.1             |                         |            |
| Age-adjusted prostate cancer incidence rate.      | 151.3 (2008)    | 143.7            |                         |            |
| Age-adjusted melanoma incidence rate.             | 21.9 (2008)     | 20.8             |                         |            |

| Intermediate-term Outcomes (2-5 years)   |                 |                  |                              |              |
|--|-----------------|------------------|------------------------------|--------------|
| State-level indicator  | Baseline (Year) | Five-Year Target | Data Source                  | Time Frame   |
| <b>Prevention</b>  |                 |                  |                              |              |
| <b>Tobacco</b>   |                 |                  |                              |              |
| Percent of adults who currently smoke.   | 17.0% (2010)    | 12%              | BRFSS                        | Annually     |
| Percent of adolescents who currently smoke.  | 14.4% (2011)    | 12%              | YRBS                         | Biannually   |
| Percent of male adults who currently use smokeless tobacco.                                      | 9.8% (2010)     | 8%               | BRFSS                        | Annually     |
| Percent of male adolescents who currently use smokeless tobacco.                                 | 14.1% (2011)    | 8%               | YRBS                         | Biannually   |
| <b>Human Papillomavirus (HPV)</b>  |                 |                  |                              |              |
| Percent of adolescent females vaccinated with 3+ doses of HPV vaccine.                           | 25.1% (2010)    | 40%              | NIS-Teen                     | As available |
| Percent of adolescent males vaccinated with 3+ doses of HPV vaccine.                             | n/a             | TBD              | TBD                          | As available |
| <b>Physical Activity and Nutrition</b>   |                 |                  |                              |              |
| Percent of adults who meet 2008 Physical Activity Guidelines of America.                         | 64.1% (2009)    | 67%              | BRFSS                        | Biannually   |
| Percent of adolescents who meet 2008 Physical Activity Guidelines of America.                    | 30.2% (2011)    | 35%              | YRBS                         | Biannually   |
| Percent of adults who consume fruits and vegetables $\geq 5$ times per day.                      | 18.6% (2009)    | 20%              | BRFSS                        | Biannually   |
| Percent of adolescents who consume fruits $\geq 2$ and vegetables $\geq 3$ times per day.        | 8.1% (2011)     | 10%              | YRBS                         | Biannually   |
| <b>Ultraviolet (UV) Radiation</b>  |                 |                  |                              |              |
| Proportion of adults who had sunburn within past year.   | 39.4% (2008)    | 37%              | BRFSS                        | Biannually   |
| <b>Radon</b>   |                 |                  |                              |              |
| Percent of existing homes that have radon mitigation systems installed.                          | <1%             | 10%              | KS Radiation Control Program | Annually     |
| Number of cities that have adopted building codes requiring radon-resistant building techniques. | 3               | 15               | KS Radiation Control Program | Annually     |

| Intermediate-term Outcomes (2-5 years) (Cont.)   |                 |                  |             |               |
|--|-----------------|------------------|-------------|---------------|
| State-level indicator  | Baseline (Year) | Five-Year Target | Data Source | Time Frame    |
| <b>Early Detection and Diagnosis</b>   |                 |                  |             |               |
| Percent of adults age 50-74 years who have had an FOBT in past year, or a sigmoidoscopy in past 5 years plus FOBT in past 3 years, or a colonoscopy in past 10 years.                              | 61.2% (2010)    | 65%              | BRFSS       | Biannually    |
| Number of cancer centers that offer patient navigator support services per standards under development by ACOS.  | TBD             | TBD              | ACOS        | TBD           |
| Percent of women age 40+ years who have had a mammogram in past two years.   | 76.0% (2010)    | 80%              | BRFSS       | Biannually    |
| Percent of women aged 18+ years who have had a PAP test in past 3 years.   | 82.7% (2010)    | 87%              | BRFSS       | Biannually    |
| Percent of high-risk individuals who have been screened for lung cancer.   | TBD             | TBD              | BRFSS       | TBD           |
| Percent of men who have discussed with their health care provider whether or not to have a prostate-specific antigen (PSA) test to screen for prostate cancer.                                     | TBD             | TBD              | BRFSS       | TBD           |
| Percent of adults with a family history of cancer who have discussed with their health care provider whether or not to receive genetic counseling.   | TBD             | TBD              | BRFSS       | TBD           |
| Average time between initial visit with a suspicious finding to definitive diagnosis and treatment.  | TBD             | <30 days         | TBD         | TBD           |
| <b>Treatment</b>   |                 |                  |             |               |
| <b>Palliative Care Services</b>  |                 |                  |             |               |
| Number of board certified palliative care physicians.  | 33 (2011)       | TBD              | AAHPM       | Annually      |
| Number of board certified palliative care nurses.  | 136 (2011)      | TBD              | NBCHPN      | Annually      |
| <b>Clinical Trials</b>   |                 |                  |             |               |
| Percent of adults who have had a health care provider ever talk to them about participating in a clinical trial.   | 3.7% (2007)     | 4%               | BRFSS       | Every 3 years |
| Among those who were ever diagnosed with cancer and whose health care provider ever talked to them about participating in a clinical trial, percent of adults enrolled in a cancer clinical trial. | 32.5% (2007)    | 34%              |             |               |

| Intermediate-term Outcomes (2-5 years) (Cont.)  |                 |                  |                                |               |
|---|-----------------|------------------|--------------------------------|---------------|
| State-level indicator   | Baseline (Year) | Five-Year Target | Data Source                    | Time Frame    |
| <b>Survivorship/Quality of Life</b>   |                 |                  |                                |               |
| Among those who have ever been diagnosed with cancer, percent of adults who have reported that poor physical or mental health kept them from doing usual activities, such as self-care, work, or recreation, on 14 or more of the past 30 days. | 20.2% (2009)    | 19%              | BRFSS                          | Every 3 years |
| Number of cancer centers that work together with patients to develop a comprehensive care summary and follow-up plan after completing treatment.  | TBD             | TBD              | TBD                            | TBD           |
| Average hospice days per cancer patient in Kansas during the last month of life.  | ~10             | ≥14              | Dartmouth Atlas of Health Care | Every 3 years |



# INFORMATION RESOURCES

## Kansas Cancer Partnership Website

To simplify your search for cancer resources, please visit the Kansas Cancer Partnership's website. This website contains information on KCP, and links to current, scientifically accurate information: [www.cancerkansas.org](http://www.cancerkansas.org).

## Acronyms

BRFSS: Behavioral Risk Factor Surveillance System.

CDC: Centers for Disease Control and Prevention

EDW: Early Detection Works Program - Kansas Breast and Cervical Cancer Screening Program

EPHT: Kansas Environmental Public Health Tracking Program

FOBT: Fecal Occult Blood Test

HPV: Human Papilloma Virus

KCP: Kansas Cancer Partnership

KCR: Kansas Cancer Registry

KDHE: Kansas Department of Health and Environment

NIS Teen: National Immunization Survey - Teen

PSA: Prostate Specific Antigen

UV: Ultraviolet

YRBS: Youth Risk Behavior Survey

## Suggested Citation:

Kansas Department of Health and Environment, Bureau of Health Promotion, Comprehensive Cancer Control and Prevention Programs. Kansas Cancer Prevention and Control Plan 2012-2016. July, 2012.

To obtain an electronic copy of this document or for information on the Kansas Cancer Partnership, visit:



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This publication was supported by Cooperative Agreement 5U58DP000797-05 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention.

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