

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.²⁴ 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.²⁵ 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 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.

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

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