

Cancer Prevention: Primary Prevention, Early Detection

Preface

The Mobilizing for Action through Planning and Partnerships (MAPP) priority planning process identified the area of *Cancer Prevention* as a priority.

In developing the plan the partners relied heavily on the recommendations and research contained in the National Prevention Strategy 2011, The Guide to Community Preventive Services and Healthy People 2020. The conceptual framework for this plan is drawn from these documents to assure alignment and use of evidence-based strategies with state and national priorities.

The Panhandle CHIP Cancer Prevention Plan is also heavily aligned with the Nebraska Comprehensive Cancer Control State Plan 2011- 2016. As noted in this plan, collaboration across the state will be required to have a significant impact on cancer. By aligning the Panhandle Plan we are engaging in active partnership with state and federal sources to assure meaningful impact from evidence-based strategies.

This document is considered a high level overarching strategic plan. Work plans to implement this plan will be developed at the regional level through initiatives such as Tobacco Free Panhandle Work Plan, Panhandle Colon Cancer Community Awareness Work Plan, Title X Plans, Worksite Wellness, and Pool Cool project. The plan will also be implemented through alignment of community/agency plans with this overarching document. The plan focuses on environmental and policy areas which engage a cross-sector of the region in actions to change or address the health status of the region.

The goals objectives and strategies outlined in *Cancer Prevention* are inter-related with other sections of the Panhandle Community Health Improvement Plan 2012, particularly the section on *Healthy Living*.

The *Cancer Prevention* section, as with other sections of the Panhandle Community Health Improvement Plan (CHIP) prioritizes actions to address the Healthy People 2020 Leading Health Indicators. These include:

- C-16 Increase the proportion of adults who receive a colorectal cancer screening based on the most recent guidelines (C-16).
- Reduce the percentage of adults who are current smokers (TU 1.1).
- Reduce the percentage of adolescents who smoked cigarettes in last 30 days (TU - 2.2).
- Reduce the percentage of children 3-11 exposed to secondhand smoke (TU11.2).

Related Healthy People 2020 Objectives which are not considered Leading Health Indicators but reflect the regional requirement for a broad spectrum *Cancer Prevention* are included in the plan as well.

To have a meaningful impact on health outcomes the plan will be implemented across all age sectors of the community through the strong engagement of the local public health system including: schools, day cares, businesses, citizens, agencies, health care providers, and local areas of government. Implementation work plans will address lower income, aging, disabled, and minority populations most at risk for significant health concerns.

Cancer Prevention Summary

The *Cancer Prevention* section of the Community Health Improvement Plan is divided into two Priority Areas: Primary Prevention, and Early Detection and Appropriate Screenings.

Primary Prevention to reduce cancer risks is addressed through two goals:

- Reduce the impact of tobacco use and exposure on cancer incidence and mortality
- Reduce exposure to ultraviolet light

Please note: Goals and objectives for a third area, Promote Healthy Eating and Physical Activity are covered in the *Healthy Living* Section, and are an integral part of the Cancer Prevention Plan.

Strategies which will address the reduction of primary prevention risks include:

- Support comprehensive tobacco-free and other evidence-based tobacco control policies
- Reduce underage access to tobacco
- Use media to educate and encourage people to live tobacco-free
- Reduce exposure to ultraviolet light
- Clinician Counseling and Interventions to Prevent Tobacco Use and Tobacco-Caused Disease in Adults and Pregnant Women (USPSTF)

Early Detection and Appropriate Screenings is addressed through one goal:

- Increase cancer screening rates

Strategies to be used include:

- Client Reminders
- One on One Education
- Provider Recall Systems
- Small Media
- Reduce Out of Pocket Expenses

PRIORITY AREA Cancer Prevention

**PROBLEM
STATEMENT**

The Nebraska Comprehensive Cancer Control Plan 2011-2016 notes the following:

Cancer is the leading cause of death for some groups of Nebraska residents. For persons under age 75, cancer claims more lives than heart disease; after age 75, this pattern is reversed.

Among the top ten cancer sites in 2008 in Nebraska, Prostate comprises (15%), Female Breast (14%), Lung and Bronchus (13%) and Colon and Rectum (12%) were the top four. The remaining six which comprise 49% of all cancers include: Urinary/Bladder, Non Hodgkin Lymphoma, Melanoma, Kidney and Renal Pelvis, Leukemia, and Uterine Corpus.

In Nebraska, prostate cancer mortality rates have decreased from 26.9 cases per 100,000 population in 1999 to 24.0 cases per 100,000 population in 2008.

Breast cancer is the most common malignancy among women and the second most frequent cause of female cancer deaths. Between 2004 and 2008, 6,172 Nebraska women were diagnosed with malignant breast cancer (and another 1,348 women were diagnosed with in-site breast cancer) and 1,181 women died from it. Since 1990, the rate of breast cancer deaths in Nebraska and the nation has declined significantly.

Although lung cancer was only the third most frequently diagnosed cancer among Nebraska residents in 2008, it was the year's leading cause of cancer mortality, accounting for more than 25% of the state's cancer deaths. During the past five years (2004-2008) lung cancer has averaged over 1,200 diagnoses and 900 deaths in Nebraska per year.

In 2008, colorectal cancer was the fourth most frequently diagnosed cancer among Nebraska residents, accounting for 1,001 new malignancies. It was the second leading cause of cancer death in the state, accounting for 369 deaths. Seventy percent (70%) of colorectal cancer cases occurred in persons who were 65 or older at diagnosis. Colorectal cancer mortality rates have decreased from 22.4 cases per 100,000 population in 1999 to 18.4 cases per 100,000 population in 2008.

According to the National Institutes of Health (NIH), the total cost of cancer for the entire U.S. in 2010 was \$263.8 billion. This figure includes \$102.8 billion for direct medical costs and \$161 billion for indirect costs. Indirect costs may further be broken into indirect morbidity costs (\$20.9 billion) and indirect mortality costs (\$140.1 billion).

For Nebraska the cost of cancer is estimated at \$1.53 billion per year. Direct costs were \$595 million, indirect morbidity costs were \$121 million, and indirect mortality costs were \$811 million.

Many cancers are preventable by reducing risk factors such as:

- Use of tobacco products
- Physical inactivity and poor nutrition
- Obesity
- Ultra violet light exposure

HEALTH DISPARITIES

Nebraska Women's Health Equity Report 2012 notes that cancer is the leading cause of death for women in Nebraska. In terms of preventative care, racial and ethnic women face greater barriers and challenges in access to health care and use of recommended health services.

Cancer incidence varies considerably across racial and ethnic groups. For example, African American men have higher rates of prostate cancer than men in other racial and ethnic groups. Hispanic women have higher rates of breast cancer than women in other groups. The [Nebraska Comprehensive Cancer Control State Plan 2011-2016](#) provides detailed information about the Cancer Incidence Rates for primary sites by race and ethnicity.

INFLUENTIAL FACTORS

The [Nebraska Comprehensive Cancer Control Plan 2011-2016](#) notes the following influential risk factors for cancer prevention, detection, and reduction of cancer deaths include:

Tobacco Use

[Healthy People 2020](#) notes that the risk of developing lung cancer is approximately 23 times higher among men who smoke and 13 times higher among women who smoke compared with people who have never smoked. Smoking causes an estimated 90% of all lung cancer deaths in men and 80% of all lung cancer deaths in women.

People who smoke die approximately 13 to 14 years earlier than people who do not smoke.

There is ample evidence that secondhand smoke, smokeless tobacco, pipe tobacco, cigars, and cigarettes cause cancer. Exposure to secondhand smoke also causes other health problems such as respiratory illness and asthma attacks. Oral cancer occurs several times more frequently among smokeless tobacco users than non-users.

Healthy Eating and Active Living

Diet, obesity, and physical activity are also important modifiable determinants of cancer risk. The American diet is estimated to account for about one-third of all U.S. cancer deaths. The greatest concern with the American diet today is the consumption of too much saturated fat and too few vegetables, fruits, and whole grains (See the Panhandle Healthy Living CHIP Plan for further information).

Early Detection Screenings Cancer Screening

Screening tests are currently available for detecting breast, cervical, colon and

rectal cancers. The research arena is working hard to improve these screening modalities and to develop new ones, especially for lung and bronchus cancers.

In recent years, new guidelines have been issued regarding the recommended frequency and age of onset for various screenings. One of the most important components of the Panhandle Cancer Prevention CHIP is to work in partnership with medical providers to inform and educate the public on the recommend screenings.

Breast Cancer

National Breast and Cervical Cancer Early Detection Program (NBCCEDP and in Nebraska Every Woman Matters) and the decreasing use of post-menopausal hormone replacement therapy have attributed to a decline breast cancer. One important risk factor for breast cancer is age, with fewer than 20% of all malignancies occurring among women under age 50. Early detection of breast cancer has resulted in over half (51%) of female breast cancers being diagnosed at local stage.

Cervical Cancer

Throughout the United States, cervical cancer incidence and mortality have fallen drastically during the past several decades, as a result of the introduction and widespread adoption of the Pap test as a means to screen for the disease. The Pap test is a simple procedure that can detect cervical cancer and pre-cancerous lesions, and can be done as part of a pelvic exam.

Prostate Cancer

Prostate cancer screening remains controversial. The U.S. Preventive Services Task Force recently concluded again that there is insufficient evidence to promote routine screening for all men and inconclusive evidence that screening improves health outcomes. Two screening tests are commonly used: prostate-specific antigen (PSA) test and digital rectal exam (DRE).

Exposure to Ultra Violet Light

Working and playing outdoors without wearing proper protective clothing and sunscreen can result in skin cancer. Use of tanning beds and sun lamps also results in ultraviolet light exposure.

DETERMINANTS The Healthy People 2020 Cancer section notes that “complex and interrelated factors contribute to the risk of developing cancer. These same factors contribute to the observed disparities in cancer incidence and death among racial, ethnic, and underserved groups. “

Further the CDC indicates that the most obvious factors are associated with a lack of health care coverage and low socioeconomic status (SES). SES is most often based on a person’s:

- Income
- Education level
- Occupation
- Social status in the community

- Geographic location

Studies have shown that a person's SES, more than racial and ethnic background, predicts the likelihood of an individual's or groups' access to:

- Education
- Health insurance
- Safe and healthy living and working conditions, including places free from exposure to environmental toxins

All of these factors are associated with the risk of developing and surviving cancer.

SES also appears to play a major role in:

- Prevalence of risk factors for behaviors for cancer (like tobacco use, physical inactivity, obesity and excessive alcohol use)
- Rates of cancer screenings, with those with lower SES having fewer screenings

Determinants for Tobacco Use

According to Healthy People 2020 there is broad range of social, environmental, psychological, and genetic factors associated with tobacco use. These include, gender, race and ethnicity, income level, educational attainments, and geographic locations.

Motivation to begin and continue smoking is influenced by the social environment, although genetic factors are also known to play a role.

Smoke-free protections, tobacco prices and taxes, and the implementation of effective tobacco prevention programs all influence tobacco use.

Among adolescents the use of tobacco is influenced by:

- Use of tobacco and approval of tobacco use by peers and siblings
- Accessibility of tobacco products
- Exposure to tobacco use campaigns
- Low image or self-esteem

PRIORITY AREA: Cancer Prevention: Primary Prevention

GOALS:

- **Reduce the impact of tobacco use and exposure on cancer incidence and mortality.**
- **Reduce exposure to ultra violet light.**

STRATEGIES	ACTIVITIES	PARTNERS
#1 Support comprehensive tobacco free and other evidence-based tobacco control policies.	Support and assess tobacco-free school campuses.	Prevention Coalition, schools and Tobacco Free Panhandle
	Support and assess tobacco-free homes and vehicles.	WIC staff, Public Health Healthcare
	Promote and assess smoke-free multi-family dwellings.	Tobacco Free Panhandle Landlords
	Designate smoke free outdoor area policies at county fairs and public events	County fair boards, recreational facilities, events hosts, municipalities, Tobacco Free Panhandle
	Smoke-free campuses and doorways at businesses.	Panhandle Worksite Wellness Council, Tobacco Free Panhandle
#2 Reduce underage access to tobacco.	Tobacco sales compliance checks.	State patrol, local law enforcement, Tobacco Free Panhandle
#3 Use media to educate and encourage people to live tobacco-free.	Assure culturally relevant educational materials.	Native American Community, Tobacco Free Panhandle
#4 Reduce exposure to ultraviolet light.	Promote proper use of sunscreen and protective clothing and reduction of the use of tanning beds.	Pools, sports/events, county fairs, event hosts, physicians
	Assess pool safety for sun protection (natural and shade structures).	Municipalities, pools and Public Health

	Adopt pool policies for sun safe behaviors for lifeguards.	Municipalities, pools, and Public Health
	Education and policy approaches in outdoor recreation and work settings	Sports facilities, schools, state parks, community events, worksites
#5 Clinician counseling and interventions to prevent tobacco use and tobacco-caused disease in adults and pregnant women (USPSTF).	Clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products.	Clinicians and patients
	Clinicians ask all pregnant women about tobacco use and provide augmented, pregnancy-tailored counseling for those who smoke.	Clinicians and patients

EVALUATION OF CANCER PREVENTION: PRIMARY PREVENTION STRATEGIES

STRATEGIES	TARGET: By July 2017...	DATA SOURCE	BASELINE
#1 Support comprehensive tobacco-free and other evidence-Based tobacco control policies.	Increase the number of schools with tobacco-free campus policies.	TRAIN Tobacco Reporting and Information Networks	Panhandle 2011: 80%
	Increase the number of county fair boards with policies designating a portion of outdoor areas smoke-free.	TRAIN	Panhandle 2012: 3
	Increase number of outdoor recreational facilities (fairgrounds, amusement parks, playgrounds, sports stadiums) that have policies designating all or a portion of the outdoor areas smoke-free.	TRAIN	Panhandle 2011: 7
	Increase number of Panhandle Worksite Wellness worksites with policies on smoke-free campuses.	NE Worksite Wellness Survey	NE 2011: 25% Panhandle: 47%
	Increase the number of Panhandle worksites with policies on smoke-free entryways (15 feet from door).	NE Worksite Wellness Survey	NE 2011: 57% Panhandle 2011: 58%
	Increase the number of policies to ensure smoke-free multi-unit housing complexes.	TRAIN	Panhandle 2012: 43%
#2 Reduce underage tobacco use.	Increase the number of policies to ensure smoke-free multi-unit housing complexes.	TRAIN	Panhandle 2012: 43%
	Reduce the percentage of youth who report ever having tried tobacco.	YRBS	NE 2011: 39%
	Reduce the % of youth who smoked cigarettes in the past 30 days.	YRBS	NE 2011: 15%
	Reduce the % of youth who have used smokeless tobacco in the past 30 days.	YRBS	NE 2011: 6%
#3 Use media to educate and encourage people to live tobacco-free.	Increase proportion of homes with a smoke free pledge.	TRAIN	Panhandle 2012: 1027 pledges
	Increase proportion of families who report their personal vehicle is smoke-free.	TRAIN	Panhandle 2012: 1027 pledges

	Increase culturally competent messaging for media presentations.	TRAIN	Panhandle: TBD
	Increase regional smoke-free billboard presence in three counties.	TRAIN	Panhandle: TBD
#4 Reduce exposure to ultraviolet light.	Increase the number of pools with sun safety policies for lifeguards.	Public Health	Panhandle: 0
	Assess and promote use of natural and shaded structures for pool sun protection.	Public Health	Panhandle: 16 of 16
	Reduce the % of youth who report having used an indoor tanning device in the past 12 months.	NE Youth Risk Behavior Survey	NE 2011: 19%
	Mass media campaigns to increase awareness of artificial light (tanning booths/sunlamps).	TBD	TBD
	Free sunscreen to increase use.	Public Health	SBCHD: 2 of 5 pools PPHD: 18 of 18 pools
	Worksite policies to protect employees from sun exposure.	TBD	TBD
	Education and policy approaches in outdoor recreation and work settings.	TBD	TBD
#5 Counseling and Interventions to Prevent Tobacco Use and Tobacco-Caused Disease in Adults and Pregnant Women (USPSTF)	Clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products.	Meaningful Use of Electronic Medical Records	TBD
	Clinicians ask all pregnant women about tobacco use and provide augmented, pregnancy-tailored counseling for those who smoke.	Meaningful Use for Electronic Medical Records	TBD

EVALUATION OF PRIMARY PREVENTION GOALS

The goals for Primary Prevention align with Nebraska Comprehensive Cancer Control Plan 2011-2016.

GOALS	TARGET: By July 2017	DATA SOURCE	BASELINE	RELATED HP 2020 OBJECTIVE
Reduce the impact of tobacco use and exposure on cancer incidence and mortality.	Decrease the % of youth (grades 9-12) who have used tobacco products in the last 30 days.	Nebraska Youth Risk Behavior Survey (YRBS)	NE 2009: 22.3%	TU-2 Reduce tobacco use by adolescents. TU2.2 Cigarette use in past 30 days.
	Decrease the % of adults who smoke cigarettes.	Nebraska Behavioral Risk Factor Surveillance System (BRFFS)	NE 2010: 16.7% SBCHD: 15.4% PPHD: 6.9%	TU-1 Reduce tobacco use by adults.
	Decrease the % of adult males who use smokeless tobacco.	BRFSS	NE 2008: 9.1% SBCHD: 17.4% PPHD: 23.7%	TU-1 Reduce tobacco use by adults.
	Increase the proportion of adult Nebraskans that are protected from secondhand smoke.	NE Adult Climate Survey/Social Climate Survey	NE 2009: 85%	TU 11 Reduce the proportion of nonsmokers exposed to second hand smoke. TU 11.1 Children age 3-11 (LHI).
	Increase the proportion of adults that are protected from second hand smoke in cars.	NE Adult Climate Survey/Social	NE 2009: 80.2%	TU 11 Reduce the proportion of nonsmokers exposed to second hand

		Climate Survey		smoke. TU 11.1 Children age 3-11 (LHI)
	Increase the % of teens who participate in behaviors that reduce exposure to artificial ultraviolet light.	NE Youth Risk Behavior Survey	US: 13% NE 2011: 19%	CU 20 Increase the proportion of persons who participate in behaviors that reduce their exposure to ultra violet light. C 20.5 Youth in grades 9-12. C 20.6 Adults over 18.

PRIORITY AREA: Cancer Prevention: Early Detection

GOALS:

- **Increase cancer screening rates**

STRATEGIES	ACTIVITIES	PARTNERS
#1 Client Reminders.	Letters, postcards, phone calls to alert clients that it is time for their screening.	Clinics, providers, Title X, Every Woman Matters, Public Health
#2 One on One Education.	In person or telephone contact to encourage individuals to be screened for cancer.	Clinics, Worksite Wellness, Title X, Every Woman Matters, health fairs, Public Health
#3 Provider Recall Systems.	EHR reminds providers it is time for a screening test (reminder) or that the client is overdue for a screening (recall).	Rural Nebraska Healthcare Network, Title X, health care providers.
#4 Use of Small Media.	Use videos, letters, brochures, and newsletters tailored to specific persons or general audiences to inform and motivate people to be screened for cancer.	Senior centers, clinics, Every Woman Matters, Public Health, providers, Panhandle Worksite Wellness Council, Cancer Coalition
	Information campaigns informing clients about most recent guidelines for screenings.	Public Health, Rural Nebraska Healthcare Network, Every Woman Matters, Panhandle Worksite Wellness Council
# 5 Reduce Out of Pocket Expenses.	Distribute Fecal Occult Blood Test (FOBT) kits and coupons.	Panhandle Public Health, pharmacies, Every Woman Matters, Panhandle Worksite

		Wellness Council, Cancer Coalition
	Reduce cost of screenings for women.	Title X, Every Woman Matters

EVALUATION OF CANCER PREVENTION: EARLY DETECTION STRATEGIES

STRATEGIES	TARGET: By July 2017...	DATA SOURCE	BASELINE
Client Reminders	Increase number of clinics/providers sending reminders, postcards, letters or phone calls for screenings.	TBD	TBD
	Increase breast cancer screening rates for rural women.	BRFSS	NE Combined 2007-08, 2010: 72.8% Panhandle Combined 2007-08, 2010: 65.1%
One on One Education	Increase the number of clinics, worksite wellness, health fairs, public health events that provide one to one education on health screenings.	TBD	TBD
Provider Recall Systems	Increase number of health care providers using reminders and recalls.	Meaningful Use for Electronic Medical Records	TBD
Small Media	Increase in small media events tailored to specific persons or general audiences to inform and motivate people to be screened for cancer.	TBD	TBD
	Information campaign in each county regarding the current guidelines for screenings.	TBD	TBD
Reduce Out of Pocket Expenses	Increase # of persons accessing FOBT kits and coupons.	Public Health	2011:
	Increase screening rates for women with incomes below \$35,000 per year.	Every Woman Matters	NE: 59% Panhandle:

EVALUATION OF EARLY DETECTION GOAL

The goals for Early Detection Goal aligns with Nebraska Comprehensive Cancer Control Plan 2011- 2016.

GOAL	TARGET: By July 2017...	DATA SOURCE	BASELINE	RELATED HP 2020 OBJECTIVE
Increase screening rates.	Increase breast cancer screening rates for women.	Nebraska Behavioral Risk Factor Surveillance System (BRFSS)	NE Combined 2007-08, 2010: 72.8% Panhandle Combined 2007-08, 2010: 65.1%	Increase the proportion of women who receive a breast cancer screening based on most recent guidelines (C-17).
	Increase % of women who received a pap smear in the last three years.	BRFSS	NE Combined 2007-08, 2010: 75.4% Panhandle Combined 2007-08, 2010: 71.3%	Increase the proportion of women who receive cervical cancer screening based on most recent guidelines. (C-15).
	Increase the % of adults who receive appropriate colon cancer screenings.	BRFSS	NE Combined 2007-10: 59.3% Panhandle Combined 2007-10: 49.8%	C-16 Increase the proportion of adults who receive a colorectal cancer screening based on the most recent guidelines (C-16) LHI.
	Developmental: Increase the proportion of men who have discussed with their health care provider whether to have a prostate-	TBD	TBD	Developmental: Increase the proportion of men who have discussed with their health

	specific antigen (PSA) test to screen for prostate cancer.			care provider whether to have a prostate-specific antigen (PSA) test to screen for prostate cancer (C-19).
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EVALUATION OF CANCER PREVENTION HP 2020 LEADING HEALTH INDICATORS

HP 2020 LEADING HEALTH INDICATOR	DATA SOURCE	BASELINE
<p>C-16 Increase the proportion of adults who receive a colorectal cancer screening based on the most recent guidelines.</p> <p>HP 2020 Target: 70%</p> <p>Target Setting Method: Modeling/Projection</p>	<p>Nebraska Behavioral Risk Factor Surveillance Systems</p>	<p>NE Combined 2007-10: 59.3%</p> <p>Panhandle Combined 2007-10: 49.8%</p>
<p>TU 1.1 Reduce the percentage of adults who are current smokers.</p> <p>HP 2020: 12%</p> <p>Target Setting Method: Retain HP 2010 target of 12%</p>	<p>Nebraska Behavioral Risk Factor Surveillance System</p>	<p>NE Combined 2007-10: 18.1%</p> <p>Panhandle Combined 2007-10: 19.7%</p>
<p>TU 2.2 Reduce the percentage of adolescents who smoked cigarettes in last 30 days.</p> <p>HP 2020: 16%</p> <p>Target Setting Method: Retain HP 2010 target of 16%</p>	<p>Nebraska Youth Risk Behavior Survey (YRBS)</p>	<p>NE 2011: 15%</p>
<p>TU 11.2 Reduce the percentage of children 3-11 exposed to second hand smoke.</p> <p>HP 2020: 42%</p> <p>Target Setting Method: 10% improvement</p>	<p>TBD</p>	<p>TBD</p>