Evidence-Based Strategies in Comprehensive Cancer Control

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Evidence-Based Strategies in Comprehensive Cancer Control

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INTRODUCTION

Description of work

The Wyoming Survey & Analysis Center (WYSAC) at the University of Wyoming, under contract to the Wyoming Department of Health [WDH], created an inventory of evidence-based programs, practices, and interventions targeting comprehensive cancer control. This catalog presents the findings in an easy-to-use format intended for the Wyoming Comprehensive Cancer Consortium (WCCCC). WYSAC researchers hope this catalog serves as a first step toward identifying cancer control strategies that help achieve the goals of the WCCCC’s Control Plan.

Comprehensive Cancer Control

The National Comprehensive Cancer Control Program (NCCCP) provides an integrated and coordinated approach to reducing the impact of cancer that includes monitoring, policy, research, education, programs, services, and evaluation. The Centers for Disease Control and Prevention (CDC) fund states, territories, and Native American tribes to develop public-private coalitions or partnerships such as the WCCCC. These partnerships bring together interested and involved groups and individuals to maximize the use of existing resources and to identify new resources to further their efforts. Comprehensive cancer control, as defined by the CDC, is “an integrated and coordinated approach to reducing cancer incidence, morbidity, and mortality through prevention, early detection, treatment, rehabilitation, and palliation” (CDC, 2013). These efforts encourage healthy lifestyles, promote recommended cancer screening guidelines and tests, increase access to quality cancer care, and improve quality of life for cancer survivors. The WCCCC is dedicated to this approach.
INTRODUCTION

Goal Areas

The evidence-based programs, practices, and interventions contained in this document have been organized in accordance with the six goal areas defined by the WCCCC. These goal areas include prevention, early detection, diagnosis and treatment, quality of life, childhood cancer, and advocacy. The rest of this section contains a description of each goal area.

Prevention

In 2013, approximately 580,350 Americans were expected to die of cancer. This number equates to more than 1,500 people a day. Cancer is the second most common cause of death in the United States and accounts for nearly 1 of every 4 deaths (American Cancer Society [ACS], 2013). In 2012, cancer accounted for more than 20%, or 1 in every 5, deaths in Wyoming (WDH, 2012).

Avoiding potential exposures such as tobacco use, severe sun exposure, and excessive dietary fat may prevent the onset or promotion of cancer. Also, increasing beneficial practices such as eating five servings of fruit and vegetables every day may help to prevent cancer (WDH, 2013).

Tobacco

Smoking is linked to an increased risk of developing at least 15 different types of cancer: nasopharyngeal, nasal cavity and paranasal sinuses, lip, oral cavity, pharynx, larynx, lung, esophagus, pancreas, uterine, cervix, kidney, bladder, stomach, and acute myeloid leukemia (ACS, 2013; Ries, Melbert, Krapcho, et al., 2008). Smoking accounts for at least 87% of lung cancer deaths and 30% of all cancer deaths (Curtis, Freedman, Ron, Ries, Hacker, et al., 2006; Schottenfeld, 1999).

Smokeless tobacco products are not a safe substitute for smoking. These products can cause oral and pancreatic cancers, precancerous lesions in the mouth, gum recession, and bone loss around the teeth. Smokers who use smokeless tobacco products to postpone or avoid quitting cigarettes increase rather than decrease their risk of lung cancer (United States Department of Health and Human Services [USDHHS], 1986).

Based on data from the Wyoming Cancer Registry, in 2011, 253 cases of lung cancer and 68 cases of cancer of the oral cavity and pharynx were diagnosed in Wyoming. Additionally, in the same year, there were 225 deaths from lung cancer and 20 from cancer of the oral cavity and pharynx (WDH, 2013).

Strategies to prevent tobacco initiation among non-smokers and tobacco cessation among smokers are key to reducing the burden of primary and secondary tobacco-related cancers. In 1990, the U.S. Surgeon General outlined the benefits of smoking cessation (USDHHS, 1990):

- Quitting smoking will substantially decrease the risk of lung, laryngeal, esophageal, oral, pancreatic, bladder, and cervical cancers.
- Regardless of age, people who quit will live longer than people who continue to smoke.
- Smokers who quit before age 50 can cut their risk of dying in the next 15 years in half, compared to those who continue to smoke.
- Quitting lowers the risk of other chronic diseases, including heart disease and stroke.
INTRODUCTION

Secondhand Smoke

Exposure to secondhand smoke significantly increases a non-smoker’s risk of developing lung and other cancers or of experiencing other health problems (e.g., decreased respiratory function and other respiratory diseases, eye and nasal irritation, heart disease, and stroke). Children and pregnant women are particularly vulnerable to the health risks associated with exposure to secondhand smoke (National Cancer Institute [NCI], 2011).

According to the 2009 Wyoming BRFSS (which reports on data collected from 2003 to 2007), 15.7% of those who primarily work indoors are sometimes or frequently exposed to secondhand smoke at work (WDH, 2010).

Exposure to secondhand smoke is preventable. Implementation of clean indoor air policies that eliminate secondhand smoke exposure in workplaces, restaurants, bars, and public spaces has shown a major reduction in the level of secondhand smoke exposure in these environments (NCI, 2011).

Nutrition and Physical Activity

For the majority of Americans who do not use tobacco, dietary choices and physical activity are the most important modifiable causes of cancer risk (ACS, 2013). Each year, approximately one-third of the cancer deaths in the United States result from factors related to poor nutrition and physical inactivity.

The American Cancer Society’s most recent nutrition and physical activity guidelines (2006) stress the importance of weight control, physical activity, and dietary habits in reducing cancer risk (Kushi, Byers, Doyle, et al., 2006). The social environment in which people live, work, play, and go to school has a significant influence on diet and activity habits. Consequently, the guidelines include an explicit Recommendation for Community Action to promote the availability of healthy food choices and opportunities for physical activity in schools, workplaces, and communities (ACS, 2013).

According to the 2009 Wyoming BRFSS, 22.5% of Wyoming adults reported no physical activity in the previous 30 days. Additionally, the 2009 BRFSS indicates that more than three quarters of Wyoming adults do not consume the recommended number of servings of fruits and vegetables on a daily basis (WDH, 2010).

These risky behaviors are not limited to adults. According to the 2013 YRBS, only 21.7% of Wyoming high school students eat fruits and vegetables five or more times per day, and only 52.2% of Wyoming high school students engage in the recommended amount of physical activity (Wyoming Department of Education, 2013).
INTRODUCTION

**Ultraviolet Exposure**

In 2006, more than two million Americans were treated for basal cell or squamous cell cancers. Most of these skin cancers are highly curable. The most common serious form of skin cancer is melanoma: 76,690 Americans were expected to be diagnosed with it in 2013. Melanoma incidence rates have been increasing for at least 30 years. Most recently, rapid increases have occurred among white women, ages 15 to 34, and white men, 65 and older (ACS, 2013). Because severe sunburns in childhood may greatly increase the risk of melanoma later in life, children, in particular, should be protected from the sun.

Risk factors for any type of skin cancer include sun sensitivity (e.g., sun burning easily; difficulty tanning; naturally blond or red–headed; a history of excessive sun exposure, including sunburns; use of tanning booths; diseases that suppress the immune system; a history of basal cell or squamous cell skin cancers; and occupational exposure to such things as coal tar, pitch, creosote, arsenic compounds, or radiation; ACS, 2013). Living at high altitudes, where the sunlight is stronger than at low elevations, can also increase the risk of skin cancer. The primary risk factors for melanoma include a personal or family history of melanoma and the presence of atypical or numerous moles (more than 50).

According to the 2010 Wyoming BRFSS, 49.0% of Wyoming adults have had at least one sunburn in the past year. Moreover, 7.5% of Wyoming adults had six or more sunburns in 2010 (WDH, 2010). Finally, the CDC estimated that, among high school students, 6.2% of males and 20.9% of females had used tanning beds in 2011 (CDC, 2012).

**Early Detection**

Early detection of cancers is secondary prevention because it involves identifying the disease as early as possible, often before symptoms develop, and treating the disease immediately thereafter. Screening for certain cancers can increase the probability of effective, timely, and cost-effective treatment. Approximately one third of cancer deaths could have been prevented if the cancer had been detected earlier. Because any screening procedure can cause potential harm, individuals should talk with their healthcare provider about the risk and benefits of screening.

**Breast Cancer**

Breast cancer is the most frequently diagnosed cancer in women (excluding skin cancers). It ranks second (behind lung cancer) as a cause of cancer death in women. Death rates for breast cancer have decreased in women since 1990, showing progress in early detection and treatment (ACS, 2013).

In 2013, approximately 232,340 new cases of invasive breast cancer were diagnosed in U.S. women and approximately 2,240 new cases were diagnosed in U.S. men (ACS, 2013). Nationwide, an estimated 40,030 breast cancer deaths (39,620 women and 410 men) were expected to occur. In 2013, an estimated 380 new cases of breast cancer were diagnosed in Wyoming women, and 60 deaths were estimated to occur.
INTRODUCTION

Age and gender are the most important risk factors for breast cancer. Modifiable risk factors include being overweight or obese after menopause, use of multiple hormone therapies (especially combined estrogen and progestin therapies), physical inactivity, and drinking one or more alcoholic beverages per day. Many studies have also shown that being overweight negatively impacts survival for post-menopausal women with breast cancer (ACS, 2013).

According to the 2009 Wyoming BRFSS, only 70.3% of Wyoming women over the age of 40 had received a mammogram within the last two years, one of the lowest percentages in the country (WDH, 2010). Mammography can detect breast cancer at an early stage, when treatment is more effective and a cure is more likely. Numerous studies have shown that early detection saves lives and increases treatment options (ACS, 2013).

Factors associated with a lower risk of breast cancer include breastfeeding, moderate or vigorous physical activity, and maintaining a healthy body weight. Recent studies have shown that women who are physically active after a breast cancer diagnosis are less likely to die from the disease, compared to women who are inactive (ACS, 2013).

Cervical Cancer

Worldwide, cervical cancer is the second most common cancer. The primary cause of cervical cancer is infection from certain types of Human Papillomavirus (HPV). The Pap test, a simple procedure that collects a small sample of cells from the cervix to examine under a microscope, screens for cervical cancer. DNA tests to detect Human Papillomavirus (HPV) strains associated with cervical cancer can be used in conjunction with the Pap test, especially when results are unclear. The Food and Drug Administration (FDA) has approved Gardasil, the first vaccine developed to prevent the most common HPV infections that cause cervical cancer, for use in females, ages 9 to 24. Gardasil has also recently been approved for use by males.

With the advent of Pap screening in the last 40 years, the number of cervical cancers in Wyoming and the United States has dramatically decreased. Because most cervical pre-cancers develop slowly, nearly all cases can be prevented if a woman screens regularly. In 2013, an estimated 12,340 cases of invasive cervical cancer were expected to be diagnosed in the United States, and an estimated 4,030 women were expected to die from the disease (ACS, 2013). In 2008, 22 individuals in Wyoming received a new diagnosis of cervical cancer and 7 deaths were reported.

With Pap screenings becoming more common, pre-invasive lesions of the cervix are detected far more frequently than invasive cancer. Mortality rates have declined steadily over the past several decades as a result of these screenings (ACS, 2013). However, not all women are taking advantage of this test. According to the 2009 Wyoming BRFSS, only 76.8% of adult Wyoming women have regular Pap tests, one of the lowest rates in the nation (WDH, 2010).
INTRODUCTION

Colorectal Cancer

Nationally, colorectal cancer is the third most common cancer in both men and women. In Wyoming, colorectal cancer is one of the most commonly diagnosed cancers and the second leading cause of cancer death (behind lung cancer). In 2013, an estimated 102,480 cases of colon cancer and 40,340 cases of rectal cancer were expected to be diagnosed in the United States and an estimated 50,830 deaths from colorectal cancer were expected to occur. This figure accounts for approximately 9% of all cancer deaths. In 2013, an estimated 240 new cases of colorectal cancer were diagnosed in Wyoming and an estimated 80 deaths from colorectal cancer were expected to occur (ACS, 2013).

The risk of colorectal cancer increases with age: 90% of cases are diagnosed in individuals, age 50 and older. Colorectal cancer risk is increased by certain inherited genetic mutations, a personal or family history of colorectal cancer and/or polyps, or a personal history of chronic inflammatory bowel disease. Studies have also shown an association between diabetes and colorectal cancer. Several factors related to the increased risk of colorectal cancer can be impacted by personal lifestyle choices. These include obesity, physical inactivity, a diet high in processed and red meat, heavy alcohol consumption, inadequate intake of fruits and vegetables, and, possibly, smoking. Studies show that compared to individuals with healthy weight, men and women who are overweight are more likely to develop and die from colorectal cancer. Milk and calcium consumption appears to decrease this risk (ACS, 2013).

The screening process (sigmoidoscopy or colonoscopy) for colorectal cancer is very effective. Colorectal cancer screening can result in the identification and removal of polyps before they become cancerous as well as detect cancer at an early stage. However, based on 2009 Wyoming BRFSS data, only 60.5% of Wyoming adults reported having had a sigmoidoscopy or colonoscopy (WDH, 2010).

Prostate Cancer

Prostate cancer is the most frequently diagnosed cancer in men, and the second leading cause of cancer death in men. In 2013, an estimated 238,590 new cases of prostate cancer were expected to be diagnosed in the United States (and an estimated 430 new cases were expected to be diagnosed in Wyoming). Incidence rates are significantly higher in African American men than in white men, and the reasons for this disparity are unclear. Prostate cancer incidence rates have changed substantially over the past 20 years, reflecting the introduction of the prostate-specific antigen (PSA) blood test to screen for prostate cancer. Well-established risk factors for prostate cancer are age, race/ethnicity, and a family history of the disease. Approximately 63% of all prostate cancer cases are diagnosed in men, age 65 and older. Genetics studies suggest that strong family predisposition may be responsible for 5-10% of prostate cancers (ACS, 2013).

In 2008, 52.2% of Wyoming men over 50 had received in the last year a digital exam to screen for prostrate cancer (WDH, 2010). Currently, more research is needed to know if tests to detect early prostate cancer should be routinely conducted.
INTRODUCTION

The ACS recommends that healthcare providers discuss the potential benefits and limitations of prostate cancer early detection testing with their male patients. ACS also recommends that the PSA blood test and a digital rectal examination (DRE) be offered annually to men, 50 and older, who are at average risk of prostate cancer, do not have any major medical problems, and have a life expectancy of at least 10 years (ACS Prostate Cancer Advisory Committee et al., 2010).

Although some controversy surrounds the PSA blood test, the digital rectal exam remains an effective technique for detecting swelling of the prostate. The WCCCC concurs with the American Urological Association that no single PSA standard applies to all men. Applying population-based cut points while ignoring other individual risk factors (e.g., age, ethnicity, family history, previous biopsy characteristics) may not give men an optimal assessment of their risk, including the risk of high-grade disease.

Diagnosis and Treatment

The lack of medical sub-specialists and specialized modalities for diagnosis and treatment, the absence of culturally appropriate practices, and the cost of travel and transportation (because of the long distances many Wyoming residents must travel to reach specialized diagnostic and treatment centers) combine to challenge the Wyoming’s ability to provide quality care to cancer patients. Ongoing advancements in medicine, science, and technology make it difficult for general physicians, family practitioners, internists, general pediatricians, and general surgeons—the people who provide much of the cancer treatment in Wyoming—to keep current on the research and, therefore, to provide their patients with best practices. Although expanding the number of cancer specialists in Wyoming could resolve this problem, Wyoming’s low population doesn’t justify the recruitment of specialists.

In 2008, 1,212 physicians provided care in Wyoming, which equated to 1 physician for every 227 residents (Wyoming Department of Administration and Information Economic Analysis Division, 2010). Finally, the lack of specialists, particularly pediatric oncologists, necessitates that Wyomingites travel out of the state for certain cancer-related diagnoses and treatments, putting an additional burden on patients and their families.

Quality of Life

Quality of life (QOL) has always been of interest to cancer patients and cancer survivors. For decades, the primary focus of cancer research was on diagnosis and treatment. The field experienced an important shift when it began viewing cancer patients and survivors in an holistic way and began focusing on their psychological, social, and spiritual needs.

QOL research first addressed pain management and palliative and end-of-life care for cancer patients. Pain management for both acute and chronic pain continues to be a vital part of quality of life discussions for cancer patients and survivors. The goal of palliative care is to provide the best possible quality of life for patients and their families. Pain management, rehabilitation, and hospice care continue to be the backbone of QOL efforts for cancer patients.
INTRODUCTION

According to the Wyoming Workers Compensation Program, in 2006, 23,896 bills were paid on claims involving pain of some type (e.g., back pain, leg pain, and joint pain) totaling to more than $6.4 million dollars. Additionally, in 2006, 6,544 Wyoming hospital discharges related to a diagnosis of pain. Although bills and discharges related to cancer pain cannot be separated out in these data, pain related to cancer diagnoses affects thousands of Wyoming residents every year and Wyoming needs an integrated and organized plan to address it.

Childhood Cancer

Cancer is the second leading cause of death in children, exceeded only by accidents (ACS, 2013). Cancer kills more children than asthma, diabetes mellitus, cystic fibrosis, congenital anomalies, and AIDS combined (National Cancer Registrars Association, 2011). Over the past 20 years, there has been some increase in the incidence of children diagnosed with all forms of invasive cancer (NCI, 2005). Nationwide, experts estimated that in 2013, 11,630 children, ages 0 to 14, would be first diagnosed with cancer and that 1,310 deaths would be reported, with about one-third of these from leukemia. The two most common childhood cancers are leukemia (31% of all childhood cancers) and brain or other nervous system tumors (25% of all childhood cancers). Mortality rates for childhood cancer have declined by 50% since 1975, attributable largely to improved treatments and the high proportion of patients participating in clinical trials (ACS, 2013).

In Wyoming, from 2000-2008, 185 children and youth, ages 0 to 19, were diagnosed with cancer. This number represents approximately 20 cases per year. During this same period and for the same age group, 28 deaths were reported (WDH, 2012). These deaths represent 1,796 Years of Potential Life Lost (YPLL).

Currently, all Wyoming children diagnosed with cancer must travel out of state to receive specialized cancer care, as no cancer programs or hospitals in the state are staffed and equipped to handle pediatric cancer cases. As mentioned in the Wyoming Comprehensive Cancer Control Consortium publication, Childhood Cancer: A Look at Wyoming’s Most Valuable Resources, many childhood cancer survivors later experience effects from their cancer and its related treatment. These long-term effects may include infertility and stunting of normal physical and mental development. Other known medical concerns include learning disabilities, toxicity complications, and re-occurrence of the cancer.

Unlike many cancers in adults, no avoidable risk factors are known to influence a child’s risk of getting cancer. When a child develops cancer, nothing the child or the parents did caused it (ACS, 2014). Early symptoms are usually nonspecific, so children should have regular medical check-ups and parents should be alert to any unusual and persistent symptoms. These symptoms may include an unusual mass or swelling; unexplained paleness or loss of energy; sudden tendency to bruise; a persistent, localized pain; prolonged, unexplained fever or illness; frequent headaches, often with vomiting; sudden eye or vision changes; and excessive, rapid weight loss (ACS, 2013).
INTRODUCTION

Advocacy

Advocacy can be a tool to develop a foundation for identifying and motivating passionate constituents and partners as well as providing sustainability to the efforts of the WCCCC. The overall goal of advocacy is to influence public policy to help reduce the burden of cancer in Wyoming as demonstrated by the passage of the Wyoming Cancer Control Act in 2007. Wyoming has passed other cancer-related legislation focusing on the Wyoming Cancer Resources Services projects, tanning salons and minors, youth access to tobacco cessation programs, and Wyoming insurance. These successes prove that each resident is an instrumental voice and integral part in the success of the Wyoming Cancer Control Plan.

No evidence-based strategies related to the goal area of advocacy were identified for inclusion in this publication.
This catalog has been created for use by the WCCCC to assist members in selecting evidence-based strategies focusing on the WCCCC’s six goals of prevention, early detection, diagnosis and treatment, quality of life, childhood cancer, and advocacy. Each strategy entry includes two pages. The first page includes a description of the strategy, a discussion of its effectiveness, a discussion of program costs (where available), and an easy-to-read indicator specifying the evidence for the strategy’s effectiveness. Each entry also indicates the WCCCC goal area and focus area (e.g., reducing tobacco use and secondhand smoke exposure) for each strategy, a list of other names or examples of the strategy, and a table that denotes the evidence source, cancer focus, population focus, and the pertinent cancer control building blocks, where available. The following graphic provides a visual breakdown and description of a typical catalog entry.

**Graphic 1:** A guide for using this catalog.
HOW TO USE THIS DOCUMENT

The back page of each catalog entry lists references for the strategy description, evidence base, and for further reading. These references are resources to help WCCCC members make decisions about which specific strategies to implement.

To increase the utility of the catalog, the Strategy Index section includes three indexes for the strategies organized by 1) goal area, 2) evidence source, and 3) effectiveness indicator. Additionally, Appendix A lists strategies which the research has shown are ineffective. Appendix B provides a list of strategies identified in Research-tested Intervention Programs (RTIPs) that are specific examples of the general strategies included in the catalog.

Finally, this catalog presents information current at the time of publication, but research into comprehensive cancer control continues to be published. Ideally, this catalog will be updated periodically, both to include new research as it becomes available and to meet the ever-changing needs of the WCCCC.
ASSESSING THE EVIDENCE BASE

Approach for review of evidence-based strategies

WYSAC began developing this catalog by reviewing the literature to identify evidence-based strategies related to the WCCCC’s six goal areas: prevention, early detection, diagnosis and treatment, quality of life, childhood cancer, and advocacy. Because the literature review revealed little in the way of evidence-based strategies specific to comprehensive cancer control, WYSAC—in consultation with WCCCC leadership—decided to use three well-known and well-respected sources to identify strategies for presentation in this catalog. These evidence-based sources are the Cochrane Library, The Community Guide to Preventive Strategies (The Community Guide), and the Research-tested Intervention Programs (RTIPs) Registry. Each provides information on evidence-based strategies related to comprehensive cancer control.

WYSAC chose strategies from these sources for inclusion in the catalog if they related to one of WCCC’s six goals. WYSAC then reviewed the evidence presented in each source to determine the effectiveness of each chosen strategy. Based on the evidence presented, WYSAC made one of three assessments about the research: 1) the research indicated that the strategy was effective, 2) the research provided mixed evidence of the strategy’s effectiveness (i.e., under different conditions, the strategy was either effective or ineffective), or 3) the research provided insufficient evidence to determine the effectiveness of the strategy. The catalog communicates information on the assessments in two places: under the discussion of effectiveness and in the color of the effectiveness indicator (green, yellow, or orange). Green signifies that the research on the strategy shows it to be effective. Yellow indicates that the research produced mixed results, and orange shows that the evidence is insufficient to determine the strategy’s effectiveness. In considering strategies with a yellow effectiveness indicator, readers should carefully read the discussion of effectiveness to understand the conditions under which the strategy does and does not work.

To keep the size of this catalog manageable, the catalog does not include individual page entries on strategies that have been shown to be ineffective. Instead, these strategies are listed in Appendix A. In addition, because specific strategies from the RTIPs Registry were often specific examples of general strategies found in the Cochrane Library and The Community Guide, RTIPs strategies do not have individual page entries, but are listed in Appendix B.

Evidence-based sources

Cochrane Library

The Cochrane Library is comprised of systematic reviews published by the Cochrane Collaboration—an international network of healthcare professionals that prepares, maintains, and promotes the accessibility of systematic reviews on a range of health topics. The Cochrane reviews cover primary research in human health care and health policy and are internationally recognized as the highest standard in evidence-based health care (The Cochrane Collaboration, 2012).
ASSESSING THE EVIDENCE BASE

The Guide to Community Preventive Services (The Community Guide)

The Guide to Community Preventive Services is a resource for information on evidence-based prevention strategies, recommendations, and findings about what works to improve public health. The Community Guide uses a scientific systematic review process to answer questions critical to public health (The Guide to Community Preventive Services, 2013).

Research-tested Intervention Programs (RTIPs) Registry

The Research-tested Intervention Programs (RTIPs) Registry is a website sponsored by the NCI and the Substance Abuse and Mental Health Administration (SAMHSA). The RTIPs website is a searchable database of cancer control interventions that provides program planners and public health practitioners easy and immediate access to 1) programs tested in a research study, 2) publications of the study findings, and 3) program products or materials (NCI, 2013).
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Effectiveness indicator

The color of the effectiveness indicator shows the effectiveness of the strategy as determined by the source from which the strategy was derived (i.e., Cochrane Library, The Community Guide). That is, the color reflects the effectiveness of a given strategy based on rigorous and current research. However, the color of the effectiveness indicators could change as new research findings are published. When selecting a strategy for comprehensive cancer control, WCCC members should consider the specific community, the cost-effectiveness of each strategy, and the cancer control strategies currently in place.

The following provides a description of the meaning of the colors used for the effectiveness indicator:

- **Effective**

A green indicator implies that reviewers from the pertinent evidence-based source determined that the strategy was effective in achieving desired outcome(s).

- **Varied evidence of effectiveness**

A yellow indicator implies that reviewers from the pertinent evidence-based source determined that the evidence base yielded mixed results regarding the effectiveness of the strategy in achieving the desired outcome(s). For example, research may support the effectiveness of the strategy when used for one type of cancer, but not for another, or for one population, but not another. A strategy with a yellow indicator implies that the reader needs to carefully read the discussion of effectiveness to appreciate the conditions under which the strategy is effective. Typically, the strategy may only work for a specific type of cancer or population.

- **Insufficient evidence**

An orange indicator implies that reviewers from the pertinent evidence-based source found too little evidence to determine the effectiveness of the strategy for achieving desired outcomes.
References


References


## Strategies by Goal Area

### Prevention

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### Guide to Community Preventive Services (The Community Guide)

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#### Breast cancer

- **Client reminders: breast cancer screening**
- **Group education for clients: breast cancer screening**
- **One-on-one education for clients: breast cancer screening**
- **Reducing client out-of-pocket costs: breast cancer screening**
- **Reducing structural barriers: breast cancer screening**
- **Small media targeting clients: breast cancer screening**

#### Cervical cancer

- **Client reminders: cervical cancer screening**
- **Group education for clients: cervical cancer screening**
- **One-on-one education for clients: cervical cancer screening**
- **Reducing client out-of-pocket costs: cervical cancer screening**
- **Small media targeting clients: cervical cancer screening**

#### Colorectal cancer

- **Client reminders: colorectal cancer screening**
- **Group education for clients: colorectal cancer screening**
- **One-on-one education for clients: colorectal cancer screening**
- **Reducing client out-of-pocket costs: colorectal cancer screening**
- **Reducing structural barriers: colorectal cancer screening**
- **Small media targeting clients: colorectal cancer screening**

#### Diagnosis and Treatment

No strategies identified
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### Strategies by Evidence Source

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<td>Exercise interventions on health-related quality of life for cancer survivors</td>
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### Strategies by Indicator

#### Effective

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#### Varied evidence of effectiveness

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### Insufficient evidence

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</table>
Prevention

In 2013, approximately 580,350 Americans were expected to die of cancer. This number equates to more than 1,500 people a day. Cancer is the second most common cause of death in the United States and accounts for nearly 1 of every 4 deaths (American Cancer Society, 2013). In 2012, cancer accounted for more than 20%, or 1 in every 5, deaths in Wyoming (Wyoming Department of Health [WDH], 2012).

Avoiding potential exposures such as tobacco use, severe sun exposure, and excessive dietary fat may prevent the onset or promotion of cancer. Also, increasing beneficial practices such as eating five servings of fruit and vegetables every day may help to prevent cancer (WDH, 2013).
References


Tobacco

Smoking is linked to an increased risk of developing at least 15 different types of cancer: nasopharyngeal, nasal cavity and paranasal sinuses, lip, oral cavity, pharynx, larynx, lung, esophagus, pancreas, uterine, cervix, kidney, bladder, stomach, and acute myeloid leukemia (American Cancer Society, 2013; Ries, Melbert, Krapcho, et al., 2008). Smoking accounts for at least 87% of lung cancer deaths and 30% of all cancer deaths (Curtis, Freedman, Ron, Ries, Hacker, et al., 2006; Schottenfeld, 1999).

Smokeless tobacco products are not a safe substitute for smoking. These products can cause oral and pancreatic cancers, precancerous lesions in the mouth, gum recession, and bone loss around the teeth. Smokers who use smokeless tobacco products to postpone or avoid quitting cigarettes increase rather than decrease their risk of lung cancer (United States Department of Health and Human Services [USDHHS], 1986).

Based on data from the Wyoming Cancer Registry, in 2011, 253 cases of lung cancer and 68 cases of cancer of the oral cavity and pharynx were diagnosed in Wyoming. Additionally, in the same year, there were 225 deaths from lung cancer and 20 from cancer of the oral cavity and pharynx (Wyoming Department of Health, 2013).

Strategies to prevent tobacco initiation among non-smokers and tobacco cessation among smokers are key to reducing the burden of primary and secondary tobacco-related cancers. In 1990, the US Surgeon General outlined the benefits of smoking cessation (USDHHS, 1990):

- Quitting smoking will substantially decrease the risk of lung, laryngeal, esophageal, oral, pancreatic, bladder, and cervical cancers.
- Regardless of age, people who quit will live longer than people who continue to smoke.
- Smokers who quit before age 50 can cut their risk of dying in the next 15 years in half, compared to those who continue to smoke.
- Quitting lowers the risk of other chronic diseases, including heart disease and stroke.


References


Community Mobilization with Additional Interventions to Restrict Minors' Access to Tobacco Products

**Description of strategy**
This strategy includes community-wide interventions aimed at focusing public attention on 1) youth access to tobacco products and 2) mobilizing community support to reduce that access (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**
Sufficient evidence supports the effectiveness of community mobilization in combination with other interventions to reduce youth tobacco use and access to tobacco products from commercial sources (Guide to Community Preventive Services, 2013). Examples of other interventions are stronger local laws directed at retailers, active enforcement of retailer sales laws, and retailer education with reinforcement.

**Discussion of program costs**
Discussion of program costs not available.

**Goal Area:** Prevention
**Focus Area:** Reduce minors' access to tobacco products
**Other names/examples:** None

---

**Evidence Source**
- Cochrane Library
- The Community Guide
- RTIPs

**Cancer Focus**
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

**Population Focus**
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

**Cancer Control Building Block**
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/ Address Cancer Burden
- Conduct Evaluation

- Primary area
- Cross-referenced/Secondary area
COMMUNITY MOBILIZATION WITH ADDITIONAL INTERVENTIONS TO RESTRICT MINORS’ ACCESS TO TOBACCO PRODUCTS

References for description of strategy

Evidence base


Further reading
Description of strategy
Interventions to increase the unit price of tobacco products include public policies at the federal, state, and local levels to increase the purchase price per unit of sale. The most common policy approach for legislation to increase the excise tax on tobacco products. Legislative actions and regulatory decisions may also be used to levy fees on tobacco products at the point of sale. In evaluating the research literature, the reviewers considered only these two approaches (Guide to Community Preventive Services, 2013).

Discussion of effectiveness
Strong evidence demonstrates that increasing the price of tobacco products:
- Reduces the total amount of tobacco consumed;
- Reduces the prevalence of tobacco use;
- Increases the number of tobacco users who quit;
- Reduces initiation of tobacco use among young people;
- Reduces tobacco-related morbidity and mortality.

Public health effects are proportional to the size of the price increase and the scale of implementation. An intervention that increases the unit price for tobacco products by 20.0% would reduce overall consumption of tobacco products by 10.4%, prevalence of adult tobacco use by 3.6%, and initiation of tobacco use by young people by 8.6%. Evidence also indicates these interventions are effective in reducing tobacco-related disparities associated with income and, possibly, with race and ethnicity. Economic evidence shows that raising the unit price of tobacco products substantially reduces healthcare costs and can reduce productivity losses (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.
INCREASING THE UNIT PRICE OF TOBACCO PRODUCTS

References for description of strategy

Evidence base


Further reading


INTERVENTIONS FOR PREVENTING TOBACCO SALES TO MINORS

Description of strategy
Controlling access is an established strategy for reducing consumption of substances harmful to health. This approach is particularly effective for reducing the consumption of tobacco, alcohol, and illicit drugs. If young people are unable to purchase cigarettes, the number of youth who start to smoke should be reduced. These interventions include such activities as warnings and fines for retailers who illegally sell tobacco to underage youth (Stead & Lancaster, 2005).

Discussion of effectiveness
Interventions with retailers can lead to large decreases in the number of tobacco outlets selling tobacco to youths. Giving retailers information is less effective in reducing illegal sales than active enforcement and/or multi-component educational approaches (Stead & Lancaster, 2005).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Prevention
Focus Area: Reduce minors’ access to tobacco products
Other names/examples: Active Enforcement of Sales Laws Directed at Retailers (Community Guide); Retailer Education with Reinforcement and Information on Health Consequences (Community Guide)

Evidence Source
Cochrane Library
The Community Guide
RTIPs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/ Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
INTERVENTIONS FOR PREVENTING TOBACCO SALES TO MINORS

References for description of strategy

Evidence base

Further reading


Mass-Reach Health Communication Interventions

Description of strategy
Mass-reach health communication interventions to change tobacco-related knowledge, beliefs, attitudes, and behaviors target large audiences through television and radio broadcasts, print media (e.g., newspaper), out-of-home placements (e.g., billboards, movie theaters, point-of-sale), and digital media.

Intervention messages are typically developed through formative testing and aim to reduce initiation of tobacco use among young people, increase quit attempts by tobacco users of all ages, and inform the public about the health risks associated with tobacco use and secondhand smoke (Guide to Community Preventive Services, 2013).

Discussion of effectiveness
Strong research evidence supports the effectiveness of mass-reach health communication interventions to achieve the following outcomes:

- Decrease the prevalence of tobacco use;
- Increase cessation and use of available services such as quitlines;
- Decrease initiation of tobacco use among young people (Guide to Community Preventive Services, 2013).

Discussion of program costs
The economic evidence indicates mass-reach health communication interventions are cost-effective and savings from averted healthcare costs exceed intervention costs (Guide to Community Preventive Services, 2013).

Goal Area: Prevention
Focus Area: Reducing tobacco use and secondhand smoke exposure
Other names/examples: Mass Media Interventions for Smoking Cessation in Adults (Cochrane Library); Mass Media Interventions for Preventing Smoking in Young People (Cochrane Library)

Evidence Source
- Cochrane Library
- The Community Guide
- RTIPs

Cancer Focus
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

Population Focus
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

Cancer Control Building Block
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

- Primary area
- Cross-referenced/Secondary area
MASS-REACH HEALTH COMMUNICATION INTERVENTIONS

References for description of strategy

Evidence base

Further reading


Self-Help Interventions for Smoking Cessation

Description of strategy
Many smokers give up smoking on their own, but materials giving advice and information may increase the number who quit successfully. The reviewers compared the effectiveness of using different self-help materials to the effectiveness of receiving no treatment or of participating in minimal contact strategies. The reviewers also evaluated the effectiveness of individualized approaches and self-help adjuncts (e.g., computer-generated feedback, telephone hotlines, and pharmacotherapy) to no treatment (Lancaster & Stead, 2005).

Discussion of effectiveness
Compared to those receiving no intervention, standard self-help materials may increase quit rates, but the effect is likely to be small. The evidence does not show an additional benefit when used alongside other interventions (e.g., advice from a healthcare professional or nicotine replacement therapy). Evidence indicates that materials tailored for individual smokers are slightly more effective than materials intended for the general population (Lancaster & Stead, 2005).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Prevention
Focus Area: Smoking cessation
Other names/examples: Mobile Phone-Based Cessation Interventions (Community Guide); Quitline Interventions (Community Guide)

Evidence Source
Cochrane Library
The Community Guide
RTIPs
Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified
Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified
Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/ Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
SELF-HELP INTERVENTIONS FOR SMOKING CESSATION

References for description of strategy

Evidence base

Further reading


SECONDHAND SMOKE

Exposure to secondhand smoke significantly increases a non-smoker’s risk of developing lung and other cancers or of experiencing other health problems (e.g., decreased respiratory function and other respiratory diseases, eye and nasal irritation, heart disease, and stroke). Children and pregnant women are particularly vulnerable to the health risks associated with exposure to secondhand smoke (National Cancer Institute [NCI], 2011).

According to the 2009 Wyoming BRFSS (which reports on data collected from 2003 to 2007), 15.7% of those who primarily work indoors are sometimes or frequently exposed to secondhand smoke at work (Wyoming Department of Health, 2010).

Exposure to secondhand smoke is preventable. Implementation of clean indoor air policies that eliminate secondhand smoke exposure in workplaces, restaurants, bars, and public spaces has shown a major reduction in the level of secondhand smoke exposure in these environments (NCI, 2011).
References


**Legislative Smoking Bans for Reducing Secondhand Smoke Exposure, Smoking Prevalence, and Tobacco Consumption**

**Description of strategy**

Smoking bans have been implemented in a variety of settings to protect the public and employees from the harmful effects of secondhand smoke. These bans also have the potential to influence social norms and smoking behavior.

Reviewers assessed the extent to which legislated smoking bans or restrictions have reduced exposure to SHS, reduced tobacco consumption, lowered smoking prevalence, and positively affected health (Callinan, Clarke, Doherty, & Kelleher, 2010).

**Discussion of effectiveness**

Substantial evidence shows legislated smoking bans reduce exposure to passive smoking. Limited evidence documents the reduction in active smoking. Some evidence indicates improvement in health outcomes, with the strongest evidence indicating a reduction in hospital admissions for acute coronary syndrome (Callinan, Clarke, Doherty, & Kelleher, 2010).

**Discussion of program costs**

Discussion of program costs not available.

**Goal Area:** Prevention  
**Focus Area:** Effects of government policy on tobacco use  
**Other names/examples:** Smoke–Free Policies (Community Guide)

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**Evidence Source**

- Cochrane Library
- The Community Guide
- RTIPs

**Cancer Focus**

- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

**Population Focus**

- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

**Cancer Control Building Block**

- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

- Primary area
- Cross-referenced/Secondary area
**Legislative Smoking Bans for Reducing Secondhand Smoke Exposure, Smoking Prevalence, and Tobacco Consumption**

References for description of strategy

Evidence base

Further reading

Smoke-Free Policies

**Description of strategy**
Smoke-free policies are public-sector regulations and private-sector rules that prohibit smoking in indoor spaces and designated public areas. State and local ordinances establish smoke-free standards in designated indoor workplaces, indoor spaces, and outdoor public places. Private-sector smoke-free policies may ban all tobacco use on private property or restrict smoking to designated outdoor locations (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**
Strong evidence indicates that smoke-free policies achieve the following outcomes:
- Reduce exposure to secondhand smoke;
- Reduce the prevalence of tobacco use;
- Increase the number of tobacco users who quit;
- Reduce the initiation of tobacco use among young people;
- Reduce tobacco-related morbidity and mortality, including acute cardiovascular events (Guide to Community Preventive Services, 2013).

**Discussion of program costs**
Economic evidence indicates that smoke-free policies can reduce healthcare costs substantially. In addition, the evidence shows smoke-free policies do not have an adverse economic impact on businesses, including bars and restaurants (Guide to Community Preventive Services, 2013).

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**Goal Area:** Prevention  
**Focus Area:** Reducing tobacco use and secondhand smoke exposure  
**Other names/examples:** Legislative smoking bans (Cochrane Library)

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**Evidence Source**
- Cochrane Library
- The Community Guide
- RTIPs

**Cancer Focus**
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

**Population Focus**
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

**Cancer Control Building Block**
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/ Address Cancer Burden
- Conduct Evaluation

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- Insufficient evidence
- Varied evidence of effectiveness
- Effective

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- Primary area
- Cross-referenced/Secondary area
SMOKE-FREE POLICIES

References for description of strategy

Evidence base


Further reading

NUTRITION & PHYSICAL ACTIVITY

For the majority of Americans who do not use tobacco, dietary choices and physical activity are the most important modifiable causes of cancer risk (American Cancer Society [ACS], 2013). Each year, approximately one-third of the cancer deaths in the United States result from factors related to poor nutrition and physical inactivity.

The American Cancer Society’s most recent nutrition and physical activity guidelines (2006) stress the importance of weight control, physical activity, and dietary habits in reducing cancer risk (Kushi, Byers, Doyle, et al., 2006). The social environment in which people live, work, play, and go to school has a significant influence on diet and activity habits. Consequently, the guidelines include an explicit Recommendation for Community Action to promote the availability of healthy food choices and opportunities for physical activity in schools, workplaces, and communities (ACS, 2013).

According to the 2009 Wyoming BRFSS, 22.5% of Wyoming adults reported no physical activity in the previous 30 days. Additionally, the 2009 BRFSS indicates that more than three quarters of Wyoming adults do not consume the recommended number of servings of fruits and vegetables on a daily basis (Wyoming Department of Health, 2010).

These risky behaviors are not limited to adults. According to the 2013 YRBS, only 21.7% of Wyoming high school students eat fruits and vegetables five or more times per day, and only 52.2% of Wyoming high school students engage in the recommended amount of physical activity (Wyoming Department of Education, 2013).
References


### Community-Scale Urban Design Land Use Policies

**Description of strategy**
Community-scale urban design land use policies and practices involve urban planners, architects, engineers, developers, and public health professionals in changing the physical environment of urban areas (areas including, at minimum, several square miles) in ways that support physical activity. These strategies include policy instruments (e.g., zoning regulations, building codes, other governmental policies, and builders’ practices) and design elements that address:

- Proximity of residential areas to stores, jobs, schools, and recreation areas;
- Continuity and connectivity of sidewalks and streets;
- Aesthetic and safety aspects of the physical environment (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**
Sufficient evidence indicates that design and land use policies and practices effectively increase physical activity in urban areas (Guide to Community Preventive Services, 2013).

**Discussion of program costs**
Discussion of program costs not available.

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**Goal Area:** Prevention  
**Focus Area:** Environmental and policy approaches to increase physical activity  
**Other names/examples:** None

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**Evidence Source**  
- Cochrane Library  
- The Community Guide  
- RTIPs

**Cancer Focus**  
- Breast  
- Cervical  
- Colorectal  
- Lung  
- Prostate  
- Skin  
- Cancer focus not identified

**Population Focus**  
- Children and Youth  
- Young Adults  
- College/University Students  
- Adults  
- Other  
- Population focus not identified

**Cancer Control Building Block**  
- Enhance Infrastructure  
- Mobilize Support  
- Utilize Data & Research  
- Build Partnerships  
- Assess/ Address Cancer Burden  
- Conduct Evaluation  

- Primary area  
- Cross-referenced/Secondary area
COMMUNITY-SCALE URBAN DESIGN LAND USE POLICIES

References for description of strategy

Evidence base

Further reading

Heath GW, Brownson RC, Kruger J, et al. (2006). The effectiveness of urban design and land use and transport policies and practices to increase physical activity: a systematic review. Journal of Physical Activity and Health, 3(Suppl 1):S55-76.
**Community-Wide Campaigns to Increase Physical Activity**

**Description of strategy**
Community-wide campaigns to increase physical activity are interventions that:
- Involve many community sectors;
- Include highly visible, broad-based, multi-component strategies (e.g., social support, risk factor screening, or health education);
- May also address other cardiovascular risk factors, particularly diet and smoking (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**
Strong evidence shows that community-wide campaigns are effective in increasing physical activity and improving physical fitness among adults and children (Guide to Community Preventive Services, 2013).

**Discussion of program costs**
Description of program costs not available.

**Goal Area:** Prevention  
**Focus Area:** Campaigns and informational approaches to increase physical activity

**Other names/examples:** Community Health Activities Model Program for Seniors (RTIPs); Wheeling Walks (RTIPs)

**Evidence Source**
- Cochrane Library
- The Community Guide
- RTIPs

**Cancer Focus**
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

**Population Focus**
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

**Cancer Control Building Block**
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

**Notes:**
- Insufficient evidence
- Varied evidence of effectiveness
- Effective

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*WYSAC, University of Wyoming*  
*55 Evidence-Based Strategies in Comprehensive Cancer Control*
COMMUNITY-WIDE CAMPAIGNS TO INCREASE PHYSICAL ACTIVITY

References for description of strategy

Evidence base


Further reading


Creation of or Enhanced Access to Places for Physical Activity Combined with Informational Outreach Activities

**Description of strategy**
Creating or enhancing access to places for physical activity involves worksites, coalitions, agencies, and communities in changing the local environment to create opportunities for physical activity. Such changes include creating walking trails, building exercise facilities, or providing access to existing nearby facilities. The reviewers evaluated these multicomponent programs as a “combined package” because separating out the effects of each individual component is not possible (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**
Strong evidence shows creating or enhancing access to places for physical activity effectively increases physical activity and improves physical fitness (Guide to Community Preventive Services, 2013).

**Discussion of program costs**
Discussion of program costs not available.

**Evidence Source**
- Cochrane Library
- The Community Guide
- RTIPs

**Cancer Focus**
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

**Population Focus**
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

**Cancer Control Building Block**
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

**Goal Area:** Prevention
**Focus Area:** Environmental and policy approaches to increase physical activity
**Other names/examples:** Wheeling Walks (RTIPs)

- Insufficient evidence
- Varied evidence of effectiveness
- Effective

Primary area
Cross-referenced/Secondary area
References for description of strategy


Evidence base


Further reading


**Enhanced School-Based Physical Education**

**Description of strategy**
Enhanced school-based physical education (PE) involves curricular and practice-based changes that increase the amount of time that K-12 students engage in moderate- or vigorous-intensity physical activity during PE classes. Strategies include the following:

- Instructional strategies and lessons that increase physical activity (e.g., modifying rules of games, substituting less active games with more active games);
- Physical education lesson plans that incorporate fitness and circuit training activities.

Program changes may include developing and implementing a well-designed PE curriculum and employing or providing teachers with appropriate training. Programs may be combined with other school- and community-based interventions such as student health education about physical activity, activities that foster family involvement, and community partnerships to increase opportunities for physical activity (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**
Strong evidence indicates that increasing the length of, or activity levels in, school-based PE classes effectively improves both the physical activity levels and physical fitness of school-aged children and adolescents (Guide to Community Preventive Services, 2013).

**Discussion of program costs**
Discussion of program costs not available.

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**Goal Area:** Prevention  
**Focus Area:** Behavioral and social approaches to increase physical activity  
**Other names/examples:** Bienestar (RTIPs); Coordinated Approach to Child Health (RTIPs); Eat Well and Keep Moving (RTIPs); Middle School Physical Activity and Nutrition (RTIPs); New Moves (RTIPs);  
**Evidence Source:**  
- Cochrane Library  
- The Community Guide  
- RTIPs  

**Cancer Focus**
- Breast  
- Cervical  
- Colorectal  
- Lung  
- Prostate  
- Skin  

**Population Focus**
- Children and Youth  
- Young Adults  
- College/University Students  
- Adults  
- Other  

**Cancer Control Building Block**
- Enhance Infrastructure  
- Mobilize Support  
- Utilize Data & Research  
- Build Partnerships  
- Assess/Address Cancer Burden  
- Conduct Evaluation

- Insufficient evidence  
- Varied evidence of effectiveness  
- Effective  

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**Primary area**  
**Cross-referenced/Secondary area**
ENHANCED SCHOOL-BASED PHYSICAL EDUCATION

References for description of strategy

Evidence base


Evidence base


Further reading


**Point-of-Decision Prompts to Encourage Use of Stairs**

**Description of strategy**

Point-of-decision prompts are motivational signs placed in or near stairwells or at the base of elevators and escalators to encourage individuals to increase stair use. These signs:

- Inform people about health or weight loss benefits from taking the stairs;
- Remind people predisposed to becoming more active about an opportunity for physical activity.

Reviewers evaluated prompts used alone or in combination with stairwell enhancements (e.g., music in stairwells) to increase stair use (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**

Strong evidence indicates that point-of-decision prompts effectively increase the percentage of people taking the stairs rather than an elevator or escalator. Not enough studies have been conducted to determine if stair or stairwell enhancements (e.g., paint, carpet, art, signs, and music) further increase the effectiveness of these interventions (Guide to Community Preventive Services, 2013).

**Discussion of program costs**

Discussion of program costs not available.

**Goal Area:** Prevention  
**Focus Area:** Environmental and policy approaches to increase physical activity  
**Other names/examples:** Evaluation and Modification of Exercise Patterns in the Natural Environment (RTIPs)

**Evidence Source**
- Cochrane Library  
- The Community Guide  
- RTIPs

**Cancer Focus**
- Breast  
- Cervical  
- Colorectal  
- Lung  
- Prostate  
- Skin  
- Cancer focus not identified

**Population Focus**
- Children and Youth  
- Young Adults  
- College/University Students  
- Adults  
- Other  
- Population focus not identified

**Cancer Control Building Block**
- Enhance Infrastructure  
- Mobilize Support  
- Utilize Data & Research  
- Build Partnerships  
- Assess/Address Cancer Burden  
- Conduct Evaluation

- Primary area  
- Cross-referenced/Secondary area
POINT-OF-DECISION PROMPTS TO ENCOURAGE USE OF STAIRS

References for description of strategy

Evidence base


Further reading


SOCIAL SUPPORT INTERVENTIONS IN COMMUNITY SETTINGS TO INCREASE OR SUSTAIN PHYSICAL ACTIVITY

Description of strategy
These social support interventions focus on increasing physical activity by building, strengthening, and maintaining social networks that support behavior change. Some examples include:

- Setting up a buddy system;
- Making contracts with others to complete specified levels of physical activity;
- Setting up walking groups or other groups to provide friendship and support for engaging in physical activity (Guide to Community Preventive Services, 2013).

Discussion of effectiveness
Strong evidence indicates that providing social support in community settings to increase physical activity is effective and improves physical fitness among adults (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Prevention
Focus Area: Behavioral and social approaches to increase physical activity
Other names/examples: None

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Evidence Source
Cochrane Library
The Community Guide
RTIPs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
SOCIAL SUPPORT INTERVENTIONS IN COMMUNITY SETTINGS TO INCREASE OR SUSTAIN PHYSICAL ACTIVITY

References for description of strategy

Evidence base


Further reading

Street-Scale Urban Design Land Use Policies

Description of strategy
Street-scale urban design and land use policies involve the efforts of urban planners, architects, engineers, developers, and public health professionals to change the physical environment of small geographic areas (typically, no more than a few blocks), in ways that support physical activity. Policy instruments could include building codes, roadway design standards, and environmental changes. Design components could include:

- Improved street lighting;
- Infrastructure projects to increase safety at street crossings;
- Use of traffic-calming approaches (e.g., speed humps, traffic circles);
- Enhancing street landscaping (Guide to Community Preventive Services, 2013).

Discussion of effectiveness
Sufficient evidence shows that urban design and land use policies and practices increase physical activity in small geographic areas (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Prevention
Focus Area: Environmental and policy approaches to increase physical activity
Other names/examples: None

Evidence Source
Cochrane Library
The Community Guide
RTIs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
STREET-SCALE URBAN DESIGN LAND USE POLICIES

References for description of strategy

Evidence base

Further reading

Heath GW, Brownson RC, Kruger J, et al. (2006). The effectiveness of urban design and land use and transport policies and practices to increase physical activity: a systematic review. *Journal of Physical Activity and Health, 3*(Suppl 1):S55-76.
In 2006, more than two million Americans were treated for basal cell or squamous cell cancers. Most of these skin cancers are highly curable. The most common serious form of skin cancer is melanoma: 76,690 Americans were expected to be diagnosed with it in 2013. Melanoma incidence rates have been increasing for at least 30 years. Most recently, rapid increases have occurred among white women, ages 15 to 34, and white men, 65 and older (American Cancer Society [ACS], 2013). Because severe sunburns in childhood may greatly increase the risk of melanoma later in life, children, in particular, should be protected from the sun.

Risk factors for any type of skin cancer include sun sensitivity (e.g., sun burning easily; difficulty tanning; naturally blond or red–headed; a history of excessive sun exposure, including sunburns; use of tanning booths; diseases that suppress the immune system; a history of basal cell or squamous cell skin cancers; and occupational exposure to such things as coal tar, pitch, creosote, arsenic compounds, or radiation; ACS, 2013). Living at high altitudes, where the sunlight is stronger than at low elevations, can also increase the risk of skin cancer. The primary risk factors for melanoma include a personal or family history of melanoma and the presence of atypical or numerous moles (more than 50).

According to the 2010 Wyoming BRFSS, 49.0% of Wyoming adults have had at least one sunburn in the past year. Moreover, 7.5% of Wyoming adults had six or more sunburns in 2010 (Wyoming Department of Health, 2010). Finally, the Centers for Disease Control and Prevention (CDC) estimated that, among high school students, 6.2% of males and 20.9% of females had used tanning beds in 2011 (CDC, 2012).
References


Child Care Center-Based Interventions

Description of strategy
Child care center-based interventions to promote sun-protective behaviors include educational interventions, supportive behavioral interventions, and environmental and policy changes in daycare or preschool settings. Educational and behavioral interventions generally provide information about sun safety and the effects of ultraviolet (UV) radiation. These interventions may be directed at children, their caregivers (e.g., staff, parents), or both. Sun safety messages may be reinforced by modeling or role-playing. Sun-protective environmental and policy changes include increasing the availability of sun-protective items (e.g., sunscreen or protective clothing), adding sun-protective features to the physical environment (e.g., shade structures), and implementing sun-protection policies (e.g., clothing guidelines, and restrictions on outdoor activities during peak sunlight hours (Guide to Community Preventive Services, 2013).

Discussion of effectiveness
Sufficient evidence shows that child care center-based skin cancer prevention interventions that include sun protection policies and education of staff and parents increase children’s protection from excessive UV exposure (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Prevention
Focus Area: Preventing skin cancer
Other names/examples:
Block the Sun, Not the Fun (RTIPs); Sun Safe (RTIPs)

Evidence Source
Cochrane Library
The Community Guide
RTIPs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area

Evidence
Insufficient evidence
Varied evidence of effectiveness
Effective
CHILD CARE CENTER-BASED INTERVENTIONS

References for description of strategy

Evidence base


Further reading


**EDUCATIONAL AND POLICY APPROACHES IN OUTDOOR OCCUPATIONAL SETTINGS**

**Description of strategy**
Interventions to promote sun protective behaviors among workers in outdoor occupational settings may include any of the following:

- Educational approaches (e.g., providing informational messages about sun protection to workers through instruction, small media (e.g., posters or brochures), or both;
- Activities designed to increase sun-protective knowledge and attitudes and to affect sun protective behaviors among workers (e.g., modeling or demonstrating);
- Environmental approaches to encourage sun protection (e.g., providing sunscreen or shade); and
- Policies to support sun protective practices (e.g., requiring sun protective clothing; Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**
Strong evidence supports the use of interventions in outdoor occupational settings to increase outdoor workers’ sun protective behaviors (e.g., use of sunscreen, wearing of sun protective clothing) and to reduce sunburns (Guide to Community Preventive Services, 2013).

**Discussion of program costs**
Discussion of program costs not available.

**Goal Area:** Prevention  
**Focus Area:** Preventing skin cancer  
**Other names/examples:** None

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**Evidence Source**
Cochrane Library  
The Community Guide  
RTIPs

**Cancer Focus**
Breast  
Cervical  
Colorectal  
Lung  
Prostate  
Skin  
Cancer focus not identified

**Population Focus**
Children and Youth  
Young Adults  
College/University Students  
Adults  
Other  
Population focus not identified

**Cancer Control Building Block**
Enhance Infrastructure  
Mobilize Support  
Utilize Data & Research  
Build Partnerships  
Assess/ Address Cancer Burden  
Conduct Evaluation

- Primary area  
- Cross-referenced/Secondary area
EVIDENTIOALANPOLICYAPPROACHESINOUTDOOROCUPATIONAL SETTINGS

References for description of strategy

Evidence base


Further reading


Multicomponent Community-Wide Interventions

Description of strategy
Multicomponent community-wide interventions to prevent skin cancer combine individual-level strategies, mass media campaigns, and environmental and policy changes in multiple settings within a defined geographic area (city, state, province, or country) to influence ultraviolet (UV) protective behaviors. These interventions are usually delivered with a defined theme, name, logo, and set of messages. Programs vary substantially in duration and in the breadth of components included.

Reviewers only considered studies that implemented two distinct components in different settings (e.g., schools, recreation areas) or in an entire community (e.g., mass media campaigns; Guide to Community Preventive Services, 2013).

Discussion of effectiveness
Sufficient evidence shows that multicomponent community-wide interventions prevent skin cancer by increasing UV-protective behaviors (e.g., increasing sunscreen use). Some evidence also indicates benefits in reducing sunburns (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Prevention
Focus Area: Preventing skin cancer
Other names/examples:
Sun Safe in the Middle School Years (RTIPs)

Evidence Source
Cochrane Library
The Community Guide
RTIPs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
MULTICOMPONENT COMMUNITY-WIDE INTERVENTIONS

References for description of strategy

Evidence base

Further reading

**PRIMARY AND MIDDLE SCHOOL INTERVENTIONS**

**Description of strategy**

Kindergarten through 8th grade (primary and middle school) interventions to promote sun-protective behaviors include educational interventions, supportive behavioral interventions, and environmental and policy changes. Student-focused educational and behavioral interventions include teaching children about sun safety and the effects of ultra-violet (UV) radiation. These interventions are often reinforced by modeling, demonstration, or role-playing. Interventions may be delivered in a single session or as part of a comprehensive multisession curriculum.

Student-focused sun-protective environmental and policy changes include increasing the availability of sun-protective items (e.g., sunscreen or protective clothing); adding sun-protective features to the physical environment (e.g., shade structures); implementing sun-protection policies (e.g., clothing guidelines, and restrictions on outdoor activities during peak sunlight hours). Interventions also may include efforts to change the knowledge, attitudes, and behaviors of teachers and parents (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**

Strong evidence indicates that primary and middle school interventions to prevent skin cancer increase sun-protective behaviors and decrease ultraviolet exposure, sunburn incidence, and formation of new moles (Guide to Community Preventive Services, 2013).

**Discussion of program costs**

Discussion of program costs not available.
PRIMARY AND MIDDLE SCHOOL INTERVENTIONS

References for description of strategy

Evidence base


Further reading


EARLY DETECTION
**Early Detection**

Early detection of cancers is secondary prevention because it involves identifying the disease as early as possible, often before symptoms develop, and treating the disease immediately thereafter. Screening for certain cancers can increase the probability of effective, timely, and cost-effective treatment. Approximately one-third of cancer deaths could have been prevented if the cancer had been detected earlier. Because any screening procedure can cause potential harm, individuals should talk with their healthcare provider about the risk and benefits of screening.
**Client Incentives**

**Description of strategy**

Client incentives are small, non-coercive rewards (e.g., cash or coupons) that aim to motivate people to get a cancer screening or to encourage others (e.g., family members, close friends) to get a screening. Incentives are distinct from interventions to improve access to services (e.g., transportation, child care, reducing client out-of-pocket costs; Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**

Only one study for breast cancer and no studies for cervical and colorectal cancers qualified for review; hence, insufficient evidence exists for determining the effectiveness of client incentives in increasing screenings for breast, cervical, or colorectal cancers (Guide to Community Preventive Services, 2013).

**Discussion of program costs**

Discussion of program costs not available.

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**Goal Area:** Early Detection  
**Focus Area:** Increasing cancer screening  
**Other names/examples:** None
**CLIENT INCENTIVES**

**References for description of strategy**

**Evidence base**


**Further reading**


Cultural competency training is designed to achieve the following:

- Enhance self-awareness of attitudes toward people of different racial and ethnic groups;
- Improve healthcare by increasing knowledge about different populations and their cultural beliefs and practices, their attitudes toward healthcare, their healthcare-seeking behaviors, and the burden of various diseases on them; and
- Improve skills such as communication (Guide to Community Preventive Services, 2013).

Because only one study of fair quality qualified for review, insufficient evidence exists to determine the effectiveness of cultural competency training on improving the cultural competence of healthcare systems (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.
CULTURAL COMPETENCY TRAINING FOR HEALTHCARE PROVIDERS

References for description of strategy

Evidence base


Further reading


**Description of strategy**

Healthcare settings may raise both linguistic and cultural barriers for ethnic subgroups. Interventions to provide culturally- or ethnically-specific clinics and services, within the community served, may improve the delivery of healthcare services to these subgroups (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**

No studies qualified for review; hence, insufficient evidence exists for determining the effectiveness of culturally- or ethnically-specific healthcare settings on improving healthcare delivery to ethnic subgroups (Guide to Community Preventive Services, 2013).

**Discussion of program costs**

Discussion of program costs not available.

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**Evidence Source**

- Cochrane Library
- The Community Guide
- RTIPs

**Cancer Focus**

- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

**Population Focus**

- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

**Cancer Control Building Block**

- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/ Address Cancer Burden
- Conduct Evaluation

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**Goal Area:** Early Detection  
**Focus Area:** Culturally competent healthcare  
**Other names/examples:** None  

- Insufficient evidence
- Varied evidence of effectiveness
- Effective
CULTURALLY-SPECIFIC HEALTHCARE SETTINGS

References for description of strategy

Evidence base

Further reading


INTERVENTIONS TO ENCOURAGE UPTAKE OF CANCER SCREENING FOR PEOPLE WITH SEVERE MENTAL ILLNESS

Description of strategy

Mental illness is associated with certain health problems (i.e., obesity) and certain behaviors (smoking, drinking alcohol, and poor diet) that increase the risk of cancer. Cancer screening is the most effective method for detecting cancer early and for improving patient outcomes. However, people with severe mental illness are less likely than others to seek out cancer screenings. Reasons for the low uptake include low income, advanced age, lack of transportation, embarrassment, not being reminded of visits or to schedule a visit, and lack of familiar healthcare providers.

In the general population, telephone invitations, telephone counselling, prompts following the initial invitation, and opportunistic screenings increase the uptake of cancer screenings. Reducing financial barriers (i.e. providing free screening tests, bus passes, or postage) may also help. People with mental illness may require more individualized care (e.g., more intense counselling) to encourage screenings (Barley, Borschmann, Walters, & Tylee, 2013).

Discussion of effectiveness

Currently, no research trials have been conducted to determine whether interventions to encourage uptake of cancer screening for people with severe mental illness are successful. Because people with mental illness are at greater risk of cancer but less likely than others to be screened, further research is needed to ensure that people with mental illness receive cancer screenings (Barley, Borschmann, Walters, & Tylee, 2013).

Discussion of program costs

Discussion of program costs not available.

goal area: early detection
focus area: increasing cancer screening
other names/examples: None

evidence source

- Cochrane Library
- The Community Guide
- RTIPs

cancer focus

- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

population focus

- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

cancer control building block

- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

Primary area
Cross-referenced/Secondary area
INTERVENTIONS TO ENCOURAGE UPTAKE OF CANCER SCREENING FOR PEOPLE WITH SEVERE MENTAL ILLNESS

References for description of strategy

Evidence base

Further reading
MASS MEDIA TARGETING CLIENTS

Description of strategy
Mass media interventions—including television, radio, newspapers, magazines, and billboards—communicate educational and motivational information about cancer screenings. Although mass media can occur in isolation, it almost always includes other components (e.g., client reminders) or attempts to capitalize on existing interventions and infrastructure. Reviewers considered studies that assessed the effectiveness of mass media when used alone as well as its unique contribution when used as part of a multicomponent intervention to increase breast, cervical, and colorectal cancer screenings (Guid to Community Preventive Services, 2013).

Discussion of effectiveness
Too few studies qualified for review; hence, insufficient evidence exists to determine the effectiveness of mass media interventions on increasing screenings for breast, cervical, and colorectal cancers (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Increasing cancer screening
Other names/examples: None

Evidence Source
Cochrane Library
The Community Guide
RTIPs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
**MASS MEDIA TARGETING CLIENTS**

**References for description of strategy**


**Evidence base**


**Further reading**


PROGRAMS TO RECRUIT AND RETAIN STAFF WHO REFLECT THE COMMUNITY’S CULTURAL DIVERSITY

Description of strategy
These interventions seek to recruit and retain healthcare providers who reflect the cultural diversity of the community served (Guide to Community Preventive Services, 2013).

Discussion of effectiveness
No studies qualified for review; hence, there is insufficient evidence to determine whether these interventions increase the cultural competency of healthcare systems (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program cost not available.

Goal Area: Early Detection
Focus Area: Culturally competent healthcare
Other names/examples: None

Evidence Source
Cochrane Library
The Community Guide
RTIPs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/ Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
PROGRAMS TO RECRUIT AND RETAIN STAFF WHO REFLECT THE COMMUNITY’S CULTURAL DIVERSITY

References for description of strategy

Evidence base

Further reading


Description of strategy

Informed Decision Making (IDM) interventions aim to increase client participation in decision making and to promote decisions consistent with the client’s values. These interventions can be delivered in many ways (e.g., group education, mass media) and can include the use of decision aids (i.e., educational tools that provide patients with information on the options available to them and encourage them to think about what is important to them as they make their healthcare choices). IDM is not the same as “shared decision making,” which occurs between doctors and clients in clinical settings, but one supports the other (Guide to Community Preventive Services, 2013).

Discussion of effectiveness

Because too few studies have been conducted, insufficient evidence exists to determine the effectiveness of informed decision making interventions on community members who are not in healthcare settings and on healthcare systems and providers. Based on mixed results and small effect sizes, there is also insufficient evidence for determining effectiveness with individuals in healthcare settings (Guide to Community Preventive Services, 2013).

Discussion of program costs

Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Increasing cancer screening
Other names/examples: A Web-based Decision Aid for Prostate Cancer Screening (RTIPs); Breast Cancer Risk & Genetic Testing (RTIPs); Improving Knowledge, Risk Perception, and Risk Communication Among Colorectal Adenoma Patients (RTIPs); Prostate Health Awareness Project (RTIPs); The PSA Test for Prostate cancer: Is it Right for ME? (RTIPs)
References for description of strategy


Evidence base


Further reading


DESCRIPTION OF STRATEGY

Provider assessment and feedback interventions evaluate provider performance in delivering or offering screenings to clients (assessment) and present providers with feedback about their performance. Feedback may describe the performance of a group of providers (e.g., a practice) or of an individual. The assessment may compare provider performance with a goal or standard (Guide to Community Preventive Services, 2013).

DISCUSSION OF EFFECTIVENESS

Sufficient evidence exists to indicate that assessment and feedback interventions increase screenings for breast cancer (mammographies), cervical cancer (Pap tests), and colorectal cancer (fecal occult blood tests [FOBTs]). These interventions can occur in any setting. Provider training status may relate to the size of the effect (Guide to Community Preventive Services, 2013).

DISCUSSION OF PROGRAM COSTS

Discussion of program costs not available.

GOAL AREA: Early Detection

FOCUS AREA: Increasing cancer screening

OTHER NAMES/EXAMPLES: None
References for description of strategy

Evidence base


Further reading


**Description of strategy**

Provider incentives are direct or indirect rewards to motivate providers to perform cancer screenings or to refer their patients to these services. Rewards are often monetary, but can also include nonmonetary incentives (e.g., continuing medical education credit; Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**

Because of the small effect sizes across studies and because data from healthcare systems that provide incentives have not been published, insufficient evidence exists to determine whether provider incentives increase screenings for breast, cervical, or colorectal cancers (Guide to Community Preventive Services, 2013).

**Discussion of program costs**

Discussion of program costs not available.
**References for description of strategy**


**Evidence base**


**Further reading**


PROVIDER REMINDERS AND RECALL SYSTEMS

Description of strategy
Reminders inform healthcare providers that it is time for a client’s cancer screening (a “reminder”) or that the client is overdue for a cancer screening (a “recall”). The reminders can be provided in different ways, such as in client charts or by email (Guide to Community Preventive Services, 2013).

Discussion of effectiveness
Sufficient to strong evidence supports the use of provider reminder systems to increase
- Breast cancer screening by mammography,
- Cervical cancer screening by Pap test,
- Colorectal cancer screening by fecal occult blood test (FOBT), and
- Colorectal cancer screening by flexible sigmoidoscopy.

Insufficient evidence exists to determine whether provider reminders increase colorectal cancer screenings by colonoscopy or double contrast barium enema (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Increasing cancer screening
Other names/examples: None

Evidence Source
- Cochrane Library
- The Community Guide
- RTIPs

Cancer Focus
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

Population Focus
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

Cancer Control Building Block
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

Primary area
Cross-referenced/Secondary area
References for description of strategy

Evidence base


Further reading

**Description of strategy**

These interventions use bilingual providers, professionally trained interpreters, or bilingual staff members who, in addition to their regular duties, serve as interpreters, to translate for clients with limited proficiency in English (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**

Only one study of fair quality qualified for review; hence, insufficient evidence exists to determine whether interpreter services or bilingual providers increase the cultural competency of healthcare systems (Guide to Community Preventive Services, 2013).

**Discussion of program costs**

Discussion of program costs not available.

**Goal Area:** Early Detection  
**Focus Area:** Culturally competent healthcare  
**Other names/examples:** None
USE OF INTERPRETER SERVICES OR BILINGUAL PROVIDERS

References for description of strategy

Evidence base


Further reading


Use of Linguistically- and Culturally-Appropriate Health Education Materials

Description of strategy
These interventions use culturally- and linguistically-appropriate health education materials to accommodate for linguistic differences in language and nonverbal communication and for cultural differences in beliefs and practices (Guide to Community Preventive Services, 2013).

Discussion of effectiveness
Because too few studies have been conducted and they all have problems in their execution, insufficient evidence exists to determine whether culturally- and linguistically-appropriate health education materials increase the cultural competence of healthcare systems (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Culturally competent healthcare
Other names/examples: None

Evidence Source
- Cochrane Library
- The Community Guide
- RTIPs

Cancer Focus
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

Population Focus
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

Cancer Control Building Block
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/ Address Cancer Burden
- Conduct Evaluation

- Primary area
- Cross-referenced/Secondary area
USE OF LINGUISTICALLY AND CULTURALLY APPROPRIATE HEALTH EDUCATION MATERIALS

References for description of strategy

Evidence base

Further reading

Breast cancer is the most frequently diagnosed cancer in women (excluding skin cancers). It ranks second (behind lung cancer) as a cause of cancer death in women. Death rates for breast cancer have decreased in women since 1990, showing progress in early detection and treatment (American Cancer Society [ACS], 2013).

In 2013, approximately 232,340 new cases of invasive breast cancer were diagnosed in U.S. women and approximately 2,240 new cases were diagnosed in U.S. men (ACS, 2013). Nationwide, an estimated 40,030 breast cancer deaths (39,620 women and 410 men) were expected to occur. In 2013, an estimated 380 new cases of breast cancer were diagnosed in Wyoming women, and 60 deaths were estimated to occur.

Age and gender are the most important risk factors for breast cancer. Modifiable risk factors include being overweight or obese after menopause, use of multiple hormone therapies (especially combined estrogen and progestin therapies), physical inactivity, and drinking one or more alcoholic beverages per day. Many studies have also shown that being overweight negatively impacts survival for post-menopausal women with breast cancer (ACS, 2013).

According to the 2009 Wyoming BRFSS, only 70.3% of Wyoming women over the age of 40 had received a mammogram within the last two years, one of the lowest percentages in the country (Wyoming Department of Health, 2010). Mammography can detect breast cancer at an early stage, when treatment is more effective and a cure is more likely. Numerous studies have shown that early detection saves lives and increases treatment options (ACS, 2013).

Factors associated with a lower risk of breast cancer include breastfeeding, moderate or vigorous physical activity, and maintaining a healthy body weight. Recent studies have shown that women who are physically active after a breast cancer diagnosis are less likely to die from the disease, compared to women who are inactive (ACS, 2013).
References


**CLIENT REMINDERS: BREAST CANCER SCREENING**

**Description of strategy**

Client reminders are written (letter, postcard, email) or telephone (including automated) messages advising people that they are due for a cancer screening. Client reminders may be enhanced by one or more of the following:

- Follow-up (printed or telephone) reminders;
- Additional information, via text or discussion, about indications for, benefits of, and ways to overcome barriers to screening; and
- Assistance in scheduling appointments.

These interventions can address the overall population or be tailored to reach one specific person (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**

Strong evidence supports the use of client reminders to increase screenings for breast cancer (Guide to Community Preventive Services, 2013).

**Discussion of program costs**

Discussion of program costs not available.

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**Goal Area:** Early Detection  
**Focus Area:** Increasing cancer screening  
**Other names/examples:** Mammography Promotion and Facilitated Appointments through Community-based Influenza Clinics (RTIPs); Maximizing Mammography Participation (RTIPs); Prevention Care Management (RTIPs); Proactive System to Improve Breast Cancer Screening (RTIPs); Project Safe (RTIPs)

**Evidence Source**  
- Cochrane Library  
- The Community Guide  
- RTIPs

**Cancer Focus**  
- Breast  
- Cervical  
- Colorectal  
- Lung  
- Prostate  
- Skin  
- Cancer focus not identified

**Population Focus**  
- Children and Youth  
- Young Adults  
- College/University Students  
- Adults  
- Other  
- Population focus not identified

**Cancer Control Building Block**  
- Enhance Infrastructure  
- Mobilize Support  
- Utilize Data & Research  
- Build Partnerships  
- Assess/ Address Cancer Burden  
- Conduct Evaluation

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**Primary area**  
- Cross-referenced/Secondary area
**Client Reminders: Breast Cancer Screening**

**References for description of strategy**

**Evidence base**


**Further reading**


GROUP EDUCATION FOR CLIENTS: BREAST CANCER SCREENING

Description of strategy
Group education conveys information on indications for, benefits of, and ways to overcome barriers to cancer screenings. The goal of these interventions is to inform, encourage, and motivate individuals to get cancer screenings. Group education is usually conducted by health professionals or by trained laypeople who use presentations or other teaching aids in a lecture or interactive format. Educators may also incorporate role modeling or other methods into their presentations. Group education may be given to different groups, in different settings, and by educators with different backgrounds and styles (Guide to Community Preventive Services, 2013).

Discussion of effectiveness
Sufficient evidence shows that group education to increase breast cancer screenings is effective (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Increasing cancer screening
Other names/examples:
Breast Health Education Among Hispanic Elderly Women (RTIPs); Friend to Friend (RTIPs); Increasing Breast Cancer Screening among Filipino American Women (RTIPs); Life is Precious (RTIPs); North Carolina Breast Cancer Screening Program (RTIPs); Targeting Cancer in Blacks (RTIPs); The Witness Project (RTIPs); Women to Women (RTIPs)

Evidence Source
Cochrane Library
The Community Guide
RTIPs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
GROUP EDUCATION FOR CLIENTS: BREAST CANCER SCREENING

References for description of strategy

Evidence base


Further reading


INTERVENTIONS FOR RELIEVING THE PAIN AND DISCOMFORT OF SCREENING MAMMOGRAPHY

Description of strategy

Screening for breast cancer by having regular mammograms reduces the death rate from this disease. Mammography uses X-rays to find early breast cancers. To obtain an accurate reading, the mammography machine needs to compress the breasts, which can cause discomfort or pain, and some women decide not to have mammograms because they can be painful (Miller, Livingstone, & Herbison, 2008).

Reviewers evaluated a wide range of interventions to relieve the pain and discomfort of screening mammography, including

- Providing verbal and/or written information before the procedure,
- Taking pain relief medication before the examination,
- Using a breast cushion to pad the surface of the mammography machine,
- Allowing the patient to control the compression of the breast, and
- Reducing breast compression by the mammography technician.

Discussion of effectiveness

Findings come from single studies; additional studies need to confirm the results observed (Miller, Livingstone, & Herbison, 2008).

Provision of verbal or written information about the procedure prior to a mammogram can reduce the pain and discomfort of the procedure. Although results indicate that breast cushions can reduce the pain of mammographies, a small proportion of women observed an adverse effect on image quality. For these women, the use of breast cushions could lead to the breast cancer being missed or to repeated tests.

More studies are required to investigate whether increasing women's control over mammogram compression reduces the pain and discomfort of a mammography. Use of acetaminophen, a readily available over-the-counter medication, as a premedication has no effect on the pain of mammography.

Discussion of program costs

Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Increasing cancer screening
Other names/examples: None

Evidence Source
- Cochrane Library
- The Community Guide
- RTIs

Cancer Focus
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

Population Focus
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

Cancer Control Building Block
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/ Address Cancer Burden
- Conduct Evaluation

Primary area
Cross-referenced/Secondary area
INTERVENTIONS FOR RELIEVING THE PAIN AND DISCOMFORT OF SCREENING MAMMOGRAPHY

References for description of strategy

Evidence base

Further reading
ONE-ON-ONE EDUCATION FOR CLIENTS: BREAST CANCER SCREENING

Description of strategy

One-on-one education delivers information to individuals about indications for, benefits of, and ways to overcome barriers to cancer screening. The goal of these interventions is to inform, encourage, and motivate individuals to seek cancer screenings. Healthcare workers or other health professionals, lay health advisors, or volunteers deliver these messages, which are given by telephone or in person in medical, community, worksite, or household settings.

Messages can address the overall population or be tailored to reach one specific person. One-on-one education is often accompanied by supporting materials delivered via small media (e.g., brochures) and may also include client reminders.

One-on-one education interventions to increase cancer screening should be applicable across settings and populations, provided the intervention is culturally and linguistically appropriate for the targeted population (Guide to Community Preventive Services, 2013).

Discussion of effectiveness

Strong evidence shows that one-on-one education increases screenings for breast cancer (Guide to Community Preventive Services, 2013).

Discussion of program costs

Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Increasing cancer screening
Other names/examples: North Carolina Breast Cancer Screening Program (RTIPs); Peer Navigator Breast Cancer Screening Program for Korean-American Women (RTIPs); Project SAFE (RTIPs); Reducing Barriers to the Use of Breast Cancer Screening (RTIPs); The Forsyth County Cancer Screening Project (RTIPs); The Robeson County Outreach Screening and Education Project (RTIPs)
**References for description of strategy**


**Evidence base**


**Further reading**


Description of strategy
Interventions to reduce client out-of-pocket costs aim to minimize or remove economic barriers that may make it difficult for clients to access cancer screening services. Costs can be reduced through a variety of approaches (e.g., vouchers, reimbursements, reductions in copays, adjustments in federal or state insurance coverage). Efforts to reduce client costs may be combined with measures to provide client education, to impart information about program availability, or to reduce other structural barriers (i.e., non-economic burdens or obstacles that make it difficult for people to access cancer screenings; Guide to Community Preventive Services, 2013).

Discussion of effectiveness
Sufficient evidence indicates that reducing client out-of-pocket costs increases breast cancer screenings (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Increasing cancer screening
Other names/examples: Targeted Mailing: Increasing Mammogram Screening Among the Elderly (RTIPs)

Evidence Source
Cochrane Library
The Community Guide
RTIPs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
REDUCING CLIENT OUT-OF-POCKET COSTS: BREAST CANCER SCREENING

References for description of strategy

Evidence base


Further reading


Reducing Structural Barriers: Breast Cancer Screening

Description of strategy
Structural barriers are non-economic burdens or obstacles that make it difficult for people to access cancer screenings. Interventions designed to reduce these barriers may facilitate access to cancer screening services by

- Reducing time or distance between service delivery settings and target populations,
- Modifying hours of service to meet client needs,
- Offering services in alternative or non-clinical settings (e.g., mobile mammography vans at worksites or in residential communities), or
- Eliminating or simplifying administrative procedures and other obstacles (e.g., scheduling assistance, patient navigators, transportation, dependent care, translation services, limiting the number of clinic visits).

Such interventions often include one or more secondary supporting measures, such as

- Printed or telephone reminders,
- Education about cancer screenings,
- Information about screening availability (e.g., group education, pamphlets, or brochures), and
- Interventions to reduce out-of-pocket costs to the client (Guide to Community Preventive Services, 2013).

Discussion of effectiveness
Strong evidence shows that interventions to reduce structural barriers increases breast cancer screenings by mammography (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Increasing cancer screening
Other names/examples:
Breast Health Education Among Hispanic Elderly Women (RTIPs); Reducing Barriers to the Use of Breast Cancer Screening (RTIPs)

Evidence Source
- Cochrane Library
- The Community Guide
- RTIPs

Cancer Focus
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

Population Focus
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

Cancer Control Building Block
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/ Address Cancer Burden
- Conduct Evaluation

Primary area
Cross-referenced/Secondary area
REduCing StrUCtural BarriERS: Breast cancer screening

References for description of strategy

Evidence base


Further reading


Screening for Breast Cancer with Mammography

Description of strategy
Breast cancer screening with mammography uses X-ray imaging to find breast cancer before a lump can be felt. The goal is to treat cancer early, when a cure is more likely (Gøtzsche & Jørgensen, 2013).

Discussion of effectiveness
Researchers are re-assessing whether universal mammography screening should be recommended for any age group. The benefits of screening today are uncertain. The chance that a woman will benefit from having a screening is ten times smaller than the risk of serious harm associated with over-diagnosis. (Gøtzsche & Jørgensen, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Increasing cancer screening
Other names/examples: None
SCREENING FOR BREAST CANCER WITH MAMMOGRAPHY

References for description of strategy

Evidence base

Further reading

Small Media Targeting Clients: Breast Cancer Screening

Description of strategy
Small media (e.g., videos and printed materials such as letters, brochures, and newsletters) can inform and motivate people to get screened for cancer. The media can provide information to individuals or to the general public (Guide to Community Preventive Services, 2013).

Discussion of effectiveness
Strong evidence indicates that small media interventions increase breast cancer screenings by mammography (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Increasing cancer screening
Other names/examples: Increasing Mammography Among Long-term Noncompliant Medicare Beneficiaries (RTIPs); Life is Precious (RTIPs); Mammography Promotion Through Influenza Clinics (RTIPs); North Carolina Breast Cancer Screening Program (RTIPs); Targeting Cancer in Blacks (RTIPs); Using Direct Mail to Increase Screening Mammography (RTIPs)

Evidence Source
Cochrane Library
The Community Guide
RTIPs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
SMALL MEDIA TARGETING CLIENTS: BREAST CANCER SCREENING

References for description of strategy

Evidence base

Further reading


Strategies for Increasing the Participation of Women in Community Breast Cancer Screening

Description of strategy
Implemented by health managers or professionals responsible for community breast cancer screening activities or programs, these interventions comprise any strategy or combination of strategies that aim to increase breast cancer screenings for targeted populations. Letters, phone calls, home visits, initiatives of physicians, and information brochures can establish contact or increase participation. Inviting women into a breast cancer screening program could occur independently or be combined with invitations to receive other preventive examinations (Bonfill Cosp, Marzo Castillejo, Pladevall Vila, & Emparanza, 2001).

Discussion of effectiveness
In general, active recruitment strategies to increase the number of women receiving breast cancer screenings were more effective than no intervention. Sending letters, making phone calls, mailing educational materials, and organizing training activities with reminders can increase the participation rate of women receiving community-based breast cancer screenings. Combinations of effective actions (e.g., making phone calls, mailing educational materials) can be highly effective, but have mostly been tested on women in low socioeconomic categories.

Home visits have not proven to be effective, and combining educational materials with invitations to multiple preventive examinations decreases participation. Specifically, breast cancer screening rates are higher if recruitment is not merged with invitations for other preventative examinations (Bonfill Cosp, Marzo Castillejo, Pladevall Vila, & Emparanza, 2001).

Discussion of program costs
Discussion of program costs not available.
STRATEGIES FOR INCREASING THE PARTICIPATION OF WOMEN IN COMMUNITY BREAST CANCER SCREENING

References for description of strategy

Evidence base

Further reading


CERVICAL CANCER

Worldwide, cervical cancer is the second most common cancer. The primary cause of cervical cancer is infection from certain types of Human Papillomavirus (HPV). The Pap test, a simple procedure that collects a small sample of cells from the cervix to examine under a microscope, screens for cervical cancer. DNA tests to detect Human Papillomavirus (HPV) strains associated with cervical cancer can be used in conjunction with the Pap test, especially when results are unclear. The Food and Drug Administration (FDA) has approved Gardasil, the first vaccine developed to prevent the most common HPV infections that cause cervical cancer, for use in females, ages 9 to 24. Gardasil has also recently been approved for use by males.

With the advent of Pap screening in the last 40 years, the number of cervical cancers in Wyoming and the United States has dramatically decreased. Because most cervical pre-cancers develop slowly, nearly all cases can be prevented if a woman screens regularly. In 2013, an estimated 12,340 cases of invasive cervical cancer were expected to be diagnosed in the United States, and an estimated 4,030 women were expected to die from the disease (American Cancer Society [ACS], 2013). In 2008, 22 individuals in Wyoming received a new diagnosis of cervical cancer and 7 deaths were reported.

With Pap screenings becoming more common, pre-invasive lesions of the cervix are detected far more frequently than invasive cancer. Mortality rates have declined steadily over the past several decades as a result of these screenings (ACS, 2013). However, not all women are taking advantage of this test. According to the 2009 Wyoming BRFSS, only 76.8% of adult Wyoming women have regular Pap tests, one of the lowest rates in the nation (Wyoming Department of Health, 2010).
References


## Client Reminders: Cervical Cancer Screening

### Description of strategy

Client reminders are written (letter, postcard, email) or telephone (including automated) messages advising people they are due for a cancer screening. Client reminders may be enhanced by one or more of the following:

- Follow-up (printed or telephone) reminders;
- Additional information, via text or discussion, about indications for, benefits of, and ways to overcome barriers to screening; and
- Assistance in scheduling appointments.

These interventions can address the overall population or be tailored to reach one specific person (Guide to Community Preventive Services, 2013).

### Discussion of effectiveness

Strong evidence supports the use of client reminders to increase screenings for cervical cancer (Guide to Community Preventive Services, 2013).

### Discussion of program costs

Discussion of program costs not available.

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### Evidence Source

- Cochrane Library
- The Community Guide
- RTIPs

### Cancer Focus

- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

### Population Focus

- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

### Cancer Control Building Block

- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

---

**Goal Area:** Early Detection

**Focus Area:** Increasing cancer screening

**Other names/examples:** Prevention Care Management (RTIPs)
CLIENT REMINDERS: CERVICAL CANCER SCREENING

References for description of strategy

Evidence base


Further reading


**GROUP EDUCATION FOR CLIENTS: CERVICAL CANCER SCREENING**

**Description of strategy**
Group education conveys information on indications for, benefits of, and ways to overcome barriers to cancer screenings. The goal of these interventions is to inform, encourage, and motivate individuals to get cancer screenings. Group education is usually conducted by health professionals or by trained laypeople who use presentations or other teaching aids in a lecture or interactive format. Educators may also incorporate role modeling or other methods into their presentations. Group education may be given to different groups, in different settings, and by educators with different backgrounds and styles (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**
Based on a small number of studies with methodological limitations and inconsistent findings, insufficient evidence exists to determine whether group education increases screenings for cervical cancer (Guide to Community Preventive Services, 2013).

**Discussion of program costs**
Discussion of program costs not available.

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**Goal Area:** Early Detection  
**Focus Area:** Increasing cancer screening  
**Other names/examples:** Cambodian Women's Health Project (RTIPs); Increasing Breast and Cervical Cancer Screening Among Filipino American Women (RTIPs); Targeting Cancer in Blacks (RTIPs); Woman to Woman (RTIPs)

**Evidence Source**
- Cochrane Library
- The Community Guide
- RTIPs

**Cancer Focus**
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

**Population Focus**
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

**Cancer Control Building Block**
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

---

Yellow: Insufficient evidence  
Yellow: Varied evidence of effectiveness  
Green: Effective
GROUP EDUCATION FOR CLIENTS: CERVICAL CANCER SCREENING

References for description of strategy


Evidence base


Further reading


INTERVENTIONS TARGETED AT WOMEN TO ENCOURAGE THE UPTAKE OF CERVICAL CANCER SCREENING

Description of strategy
Worldwide, cervical cancer is the second most common cancer. Increasing the uptake of screening is important for controlling this disease. Early detection and treatment of precancerous changes can avoid malignancy. Methods of encouraging women to undergo cervical screenings include invitations, reminders, education, message framing, counselling, risk factor assessment, and economic interventions (Everett, Bryant, Griffin, Martin-Hirsch, Forbes, & Jepson, 2011).

Discussion of effectiveness
Evidence supports the use of invitation letters to increase the uptake of cervical screenings. Limited evidence supports educational interventions, but it is unclear what format is most effective (Everett, Bryant, Griffin, Martin-Hirsch, Forbes, & Jepson, 2011).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Increasing cancer screening
Other names/examples: Cambodian Women’s Health Project (RTIPs); The Chinese Women’s Health Project (RTIPs); The Forsyth County Cancer Screening Project (RTIPs); Vietnamese Women’s Health Project (RTIPs)

Evidence Source
Cochrane Library
The Community Guide
RTIPs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/ Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
INTERVENTIONS TARGETED AT WOMEN TO ENCOURAGE THE UPTAKE OF CERVICAL CANCER SCREENING

References for description of strategy

Evidence base

Further reading


**Description of strategy**

One-on-one education delivers information to individuals about indications for, benefits of, and ways to overcome barriers to cancer screenings. The goal of these interventions is to inform, encourage, and motivate individuals to get cancer screenings. Healthcare workers or other health professionals, lay health advisors, or volunteers deliver these messages, which are given by telephone or in person in medical, community, worksite, or household settings.

Messages can address the overall population or be tailored to reach one specific person. One-on-one education is often accompanied by supporting materials delivered via small media (e.g., brochures) and may also include client reminders.

One-on-one education interventions to increase cancer screening should be applicable across settings and populations and should be culturally and linguistically appropriate for the targeted population (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**

Strong evidence shows that one-on-one education increases screenings for cervical cancer (Guide to Community Preventive Services, 2013).

**Discussion of program costs**

Discussion of program costs not available.

**Goal Area:** Early Detection

**Focus Area:** Increasing cancer screening

**Other names/examples:**
- Cambodian Women’s Health Project (RTIPs);
- The Chinese Women’s Health Project (RTIPs);
- The Forsyth County Cancer Screening Project (RTIPs);
- Vietnamese Women’s Health Project (RTIPs)

**Evidence Source**
- Cochrane Library
- The Community Guide
- RTIPs

**Cancer Focus**
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

**Population Focus**
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

**Cancer Control Building Block**
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

- Primary area
- Cross-referenced/Secondary area
ONE-ON-ONE EDUCATION FOR CLIENTS: CERVICAL CANCER SCREENING

References for description of strategy

Evidence base

Further reading
REDUCING CLIENT OUT-OF-POCKET COSTS: CERVICAL CANCER SCREENING

Description of strategy
Interventions to reduce client out-of-pocket costs aim to minimize or remove economic barriers that may make it difficult for clients to access cancer screening services. Costs can be reduced through a variety of approaches (e.g., vouchers, reimbursements, reductions in co-pays, or adjustments in federal or state insurance coverage). Efforts to reduce client costs may be combined with measures to provide client education, to impart information about program availability, or to reduce other structural barriers (i.e., non-economic burdens or obstacles that make it difficult for people to access cancer screenings; Guide to Community Preventive Services, 2013).

Discussion of effectiveness
The reviewers identified few cervical cancer studies; hence, insufficient evidence exists to determine whether reducing out-of-pocket costs increases screenings for cervical cancer. Nonetheless, the consistent favorable results for interventions that reduce costs for breast cancer screenings and for several other preventive services suggest that such interventions are likely to be effective for increasing cervical cancer screenings as well (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Early Detection  
Focus Area: Increasing cancer screening  
Other names/examples: None

Evidence Source
Cochrane Library  
The Community Guide  
RTIPs

Cancer Focus
Breast  
Cervical  
Colorectal  
Lung  
Prostate  
Skin  
Cancer focus not identified

Population Focus
Children and Youth  
Young Adults  
College/University Students  
Adults  
Other  
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure  
Mobilize Support  
Utilize Data & Research  
Build Partnerships  
Assess/ Address Cancer Burden  
Conduct Evaluation

Insufficient evidence  
Varied evidence of effectiveness  
Effective
REDUCING CLIENT OUT-OF-POCKET COSTS: CERVICAL CANCER SCREENING

References for description of strategy

Evidence base


Further reading


**Small Media Targeting Clients: Cervical Cancer Screening**

**Description of strategy**
Small media (e.g., videos and printed materials such as letters, brochures, and newsletters) can inform and motivate people to get screened for cancer. The media can provide information to individuals or to the general public (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**
Strong evidence supports the effectiveness of small media interventions to increase cervical cancer screenings by Pap test (Guide to Community Preventive Services, 2013).

**Discussion of program costs**
Discussion of program costs not available.

**Goal Area:** Early Detection  
**Focus Area:** Increasing cancer screening  
**Other names/examples:**  
Targeting Cancer in Blacks (RTIPs); The Forsyth County Cancer Screening Project (RTIPs); Vietnamese Women’s Health Project (RTIPs)

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<th>The Community Guide</th>
<th>RTIPs</th>
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<tr>
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<td>Enhance Infrastructure</td>
<td>Mobilize Support</td>
<td>Utilize Data &amp; Research</td>
</tr>
</tbody>
</table>

- Insufficient evidence
- Varied evidence of effectiveness
- Effective

Primary area
Cross-referenced/Secondary area
SMALL MEDIA TARGETING CLIENTS: CERVICAL CANCER SCREENING

References for description of strategy

Evidence base
Byles J, Redman S, Sanson-Fisher R, Boyle C. Effectiveness of two direct-mail strategies to encourage women to have cervical (Pap) smears. Health Promot Int, 10(1):5-16.


Further reading


Nationally, colorectal cancer is the third most common cancer in both men and women. In Wyoming, colorectal cancer is one of the most commonly diagnosed cancers and the second leading cause of cancer death (behind lung cancer). In 2013, an estimated 102,480 cases of colon cancer and 40,340 cases of rectal cancer were expected to be diagnosed in the United States and an estimated 50,830 deaths from colorectal cancer were expected to occur. This figure accounts for approximately 9% of all cancer deaths. In 2013, an estimated 240 new cases of colorectal cancer were diagnosed in Wyoming and an estimated 80 deaths from colorectal cancer were expected to occur (American Cancer Society [ACS], 2013).

The risk of colorectal cancer increases with age: 90% of cases are diagnosed in individuals, age 50 and older. Colorectal cancer risk is increased by certain inherited genetic mutations, a personal or family history of colorectal cancer and/or polyps, or a personal history of chronic inflammatory bowel disease. Studies have also shown an association between diabetes and colorectal cancer. Several factors related to the increased risk of colorectal cancer can be impacted by personal lifestyle choices. These include obesity, physical inactivity, a diet high in processed and red meat, heavy alcohol consumption, inadequate intake of fruits and vegetables, and, possibly, smoking. Studies show that compared to individuals with healthy weight, men and women who are overweight are more likely to develop and die from colorectal cancer. Milk and calcium consumption appears to decrease this risk (ACS, 2013).

The screening process (sigmoidoscopy or colonoscopy) for colorectal cancer is very effective. Colorectal cancer screening can result in the identification and removal of polyps before they become cancerous as well as detect cancer at an early stage. However, based on 2009 Wyoming BRFSS data, only 60.5% of Wyoming adults reported having had a sigmoidoscopy or colonoscopy (Wyoming Department of Health, 2010).
References


**Client Reminders: Colorectal Cancer Screening**

**Description of strategy**

Client reminders are written (letter, postcard, email) or telephone (including automated) messages advising people they are due for a cancer screening. Client reminders may be enhanced by one or more of the following:

- Follow-up (printed or telephone) reminders;
- Additional information, via text or discussion, about indications for, benefits of, and ways to overcome barriers to screening; and
- Assistance in scheduling appointments.

These interventions can address the overall population or be tailored to reach one specific person (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**

Strong evidence supports the use of client reminders to increase colorectal cancer screenings with fecal occult blood testing (FOBT).

Inconsistent (insufficient) evidence makes it difficult to determine whether client reminders increase colorectal cancer screenings with other tests (colonoscopy, flexible sigmoidoscopy; Guide to Community Preventive Services, 2013).

**Discussion of program costs**

Discussion of program costs not available.

**Goal Area:** Early Detection  
**Focus Area:** Increasing cancer screening  
**Other names/examples:** Automated Telephone Calls Improve Completion of Fecal Occult Blood Testing (RTIPs); Effect of a Mailed Brochure on Appointment Keeping for Screening Colonoscopy (RTIPs); Physician-Oriented Intervention on Follow-Up in Colorectal Cancer Screening (RTIPs); Prevention Care Management (RTIPs)

**Evidence Source**
- Cochrane Library
- The Community Guide
- RTIPs

**Cancer Focus**
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

**Population Focus**
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

**Cancer Control Building Block**
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/ Address Cancer Burden
- Conduct Evaluation

- Insufficient evidence
- Varied evidence of effectiveness
- Effective

- Primary area
- Cross-referenced/Secondary area
References for description of strategy

Evidence base

Further reading
**GROUP EDUCATION FOR CLIENTS: COLORECTAL CANCER SCREENING**

**Description of strategy**

Group education conveys information on indications for, benefits of, and ways to overcome barriers to cancer screenings. The goal of these interventions is to inform, encourage, and motivate individuals to get cancer screenings. Group education is usually conducted by health professionals or by trained laypeople who use presentations or other teaching aids in a lecture or interactive format. Educators may also incorporate role modeling or other methods into their presentations. Group education may be given to different groups, in different settings, and by educators with different backgrounds and styles (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**

Based on a small number of studies with methodological limitations and inconsistent findings, insufficient evidence exists to determine whether group education increases screenings for colorectal cancer (Guide to Community Preventive Services, 2013).

**Discussion of program costs**

Discussion of program costs not available.

**Goal Area:** Early Detection  
**Focus Area:** Increasing cancer screening  
**Other names/examples:**  
Cambodian Women’s Health Project (RTIPs); Increasing Breast and Cervical Cancer Screening Among Filipino American Women (RTIPs); Targeting Cancer in Blacks (RTIPs); Woman to Woman (RTIPs)
GROUP EDUCATION FOR CLIENTS: COLORECTAL CANCER SCREENING

References for description of strategy

Evidence base


Further reading


**ONE-ON-ONE EDUCATION FOR CLIENTS: COLORECTAL CANCER SCREENING**

**Description of strategy**

One-on-one education delivers information to individuals about indications for, benefits of, and ways to overcome barriers to cancer screenings. The goal of these interventions is to inform, encourage, and motivate individuals to get cancer screenings. Healthcare workers or other health professionals, lay health advisors, or volunteers deliver these messages, which are given by telephone or in person in medical, community, worksite, or household settings.

Messages can address the overall population or be tailored to reach one specific person. One-on-one education is often accompanied by supporting materials delivered via small media (e.g., brochures) and may also include client reminders.

One-on-one education interventions to increase cancer screenings should be applicable across settings and populations, provided the intervention is culturally- and linguistically-appropriate for the targeted populations (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**

Sufficient evidence shows that one-on-one education increases colorectal cancer screenings with fecal occult blood testing (FOBT).

Because only two qualifying studies assessed colorectal screenings by colonoscopy (with inconsistent results), and only one assessed colorectal screenings by flexible sigmoidoscopy (which found no effect), the evidence is insufficient to determine whether one-on-one education increases colorectal cancer screenings using other tests for screening (Guide to Community Preventive Services, 2013).

**Discussion of program costs**

Discussion of program costs not available.

---

**Goal Area:** Early Detection  
**Focus Area:** Increasing cancer screening  
**Other names/examples:** Flu-FIT and Flu-FOBT Program (RTIPs); Physician-Oriented on Follow-Up in Colorectal Cancer Screening (RTIPs)

**Evidence Source**
- Cochrane Library
- The Community Guide
- RTIPs

**Cancer Focus**
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

**Population Focus**
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

**Cancer Control Building Block**
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/ Address Cancer Burden
- Conduct Evaluation

- Primary area
- Cross-referenced/Secondary area
ONE-ON-ONE EDUCATION FOR CLIENTS: COLORECTAL CANCER SCREENING

References for description of strategy

Evidence base


Further reading


Reducing Client Out-of-Pocket Costs: Colorectal Cancer Screening

Description of strategy
Interventions to reduce client out-of-pocket costs aim to minimize or remove economic barriers that may make it difficult for clients to access cancer screening services. Costs can be reduced through a variety of approaches (e.g., vouchers, reimbursements, reductions in co-pays, or adjustments in federal or state insurance coverage). Efforts to reduce client costs may be combined with measures to provide client education, to impart information about program availability, or to reduce other structural barriers (i.e., non-economic burdens or obstacles that make it difficult for people to access cancer screening; Guide to Community Preventive Services, 2013).

Discussion of effectiveness
The reviewers identified no colorectal cancer studies; hence, insufficient evidence exists to determine whether reducing out-of-pocket costs increases screenings for colorectal cancer. Nonetheless, the consistent favorable results for interventions that reduce costs for breast cancer screenings and for several other preventive services suggest these interventions are likely to be effective for increasing colorectal cancer screenings as well (Guide to Community Preventive Services, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Early Detection
Focus Area: Increasing cancer screening
Other names/examples: None

Evidence Source
- Cochrane Library
- The Community Guide
- RTIPs

Cancer Focus
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

Population Focus
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

Cancer Control Building Block
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

Primary area
Cross-referenced/Secondary area
REDUCING CLIENT OUT-OF-POCKET COSTS: COLORECTAL CANCER SCREENING

References for description of strategy

Evidence base


Further reading


Reducing Structural Barriers: Colorectal Cancer Screening

Description of strategy

Structural barriers are non-economic burdens or obstacles that make it difficult for people to access cancer screenings. Interventions designed to reduce these barriers may facilitate access to cancer screening services by

- Reducing time or distance between service delivery settings and target populations,
- Modifying hours of service to meet client needs,
- Offering services in alternative or non-clinical settings (e.g., mobile mammography vans at worksites or in residential communities), and
- Eliminating or simplifying administrative procedures and other obstacles (e.g., scheduling assistance, patient navigators, transportation, dependent care, translation services, limiting the number of clinic visits).

Such interventions often include one or more secondary supporting measures, such as

- Printed or telephone reminders,
- Education about cancer screening,
- Information about screening availability (e.g., group education, pamphlets, or brochures), and
- Interventions to reduce out-of-pocket costs to the client (Guide to Community Preventive Services, 2013).

Discussion of effectiveness

Strong evidence shows that interventions to reduce structural barriers increase screenings for colorectal cancer (by FOBT). Because reviewers only identified one study using flexible sigmoidoscopy or colonoscopy, the evidence is insufficient for determining whether reducing structural barriers increases colorectal cancer screening using these two procedures (Guide to Community Preventive Services, 2013).

Discussion of program costs

Discussion of program costs not available.
Reducing Structural Barriers: Colorectal Cancer Screening

References for description of strategy

Evidence base


Further reading


SCREENING FOR COLORECTAL CANCER USING THE FECAL OCCULT BLOOD TEST

Description of strategy
Regular screening of feces for blood can detect colorectal cancer early and can, therefore, reduce mortality in at-risk populations (e.g., older patients). If the fecal occult blood test (FOBT) is positive, further diagnostic tests (i.e., colonoscopies, flexible sigmoidoscopies, double-contrast barium enemas) are used to examine the bowels, but these tests often cause discomfort and can cause, less frequently, serious adverse consequences (Hewitson, Glasziou, Irwig, Towler, & Watson, 2007).

Discussion of effectiveness
FOBTs yield a modest reduction in colorectal cancer mortality, a possible reduction in cancer incidence (through the detection and removal of colorectal adenomas), and, potentially, an increase in less invasive surgeries that early treatment of colorectal cancers makes possible. Harmful effects of screening include the psycho-social consequences of receiving a false-positive result, the potentially significant complications associated with colonoscopies, and the possibility of over-diagnosis (leading to unnecessary investigations or treatment; Hewitson, Glasziou, Irwig, Towler, & Watson, 2007).

Discussion of program costs
Discussion of program costs not available.
**Screening for Colorectal Cancer using the Fecal Occult Blood Test**

**References for description of strategy**

**Evidence base**

**Further reading**
**SMALL MEDIA TARGETING CLIENTS: COLORECTAL CANCER SCREENING**

**Description of strategy**
Small media (e.g., videos and printed materials such as letters, brochures, and newsletters) can inform and motivate people to get screened for cancer. The media can provide information to individuals or to the general public (Guide to Community Preventive Services, 2013).

**Discussion of effectiveness**
Strong evidence shows the effectiveness of small media interventions in increasing colorectal cancer screenings by fecal occult blood test (FOBT).

Because no studies evaluated screenings by flexible sigmoidoscopy, colonoscopy, or double contrast barium enema, the evidence is insufficient to determine whether small media is effective in increasing colorectal cancer screenings using these procedures (Guide to Community Preventive Services, 2013).

**Discussion of program costs**
Discussion of program costs not available.

---

**Goal Area: Early Detection**
**Focus Area: Increasing cancer screening**

**Other names/examples:** Colorectal Cancer Screening in Chinese Americans Project (RTIPs); Effect of a Mailed Brochure on Appointment Keeping for Screening Colonoscopy (RTIPs); Filipino-American Health Study (RTIPs); Flu-FIT and Flu-FOBT Program (RTIPs); Targeting Cancer in Blacks (RTIPs)

**Evidence Source**
Cochrane Library
The Community Guide
RTIPs

**Cancer Focus**
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin

Cancer focus not identified

**Population Focus**
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other

Population focus not identified

**Cancer Control Building Block**
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

- Primary area
- Cross-referenced/Secondary area
SMALL MEDIA TARGETING CLIENTS: COLORECTAL CANCER SCREENING

References for description of strategy

Evidence base


Further reading


VIRTUAL REALITY SIMULATION TRAINING FOR HEALTH PROFESSION TRAINEES IN GASTROINTESTINAL ENDOSCOPY

**Description of strategy**

Over the last two decades, a movement has been underway to integrate simulation-based training into the education and training of health professions trainees. Simulation-based training is expected to facilitate novice skill acquisition in a low-risk environment (Issenberg, 1999; Issenberg, 2005). Virtual reality (VR) computer simulators are among the tools that can enhance traditional endoscopy teaching. Using a combination of visual and haptic (tactile) interfaces, virtual reality simulators present learners with situations that resemble reality (Krummel, 1998; Sturm, 2007), thus allowing trainees to practice the cognitive and technical skills of the procedure under varying conditions (Sturm, 2007). In addition, VR simulators can provide users with objective measures of performance (e.g., procedural completion time, percentage of mucosa visualized, and degree of patient pain). These measures can be used to help analyze trainees' actions and to identify errors. They may also provide an opportunity for assessing competency (Haque, 2006; Walsh, Sherlock, Ling, & Carnahan, 2012).

**Discussion of effectiveness**

Results indicate that VR endoscopy training for health profession trainees with limited or no prior endoscopic experience can effectively supplement early conventional endoscopy training (the apprenticeship model) in diagnostic esophagastroduodenoscopy, colonoscopy, and/or sigmoidoscopy. However, insufficient evidence exists to determine if VR simulation-based training can replace early conventional endoscopy training for health profession trainees with limited or no prior endoscopic experience. Development of a reliable and valid measure of endoscopic performance is needed before further randomized clinical trials with high methodological quality can be conducted (Walsh, Sherlock, Ling, & Carnahan, 2012).

**Discussion of program costs**

Discussion of program costs not available.

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Goal Area: Early Detection  
Focus Area: Increasing cancer screening  
Other names/examples: None

Evidence Source
- Cochrane Library
- The Community Guide
- RTIPs

Cancer Focus
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
- Cancer focus not identified

Population Focus
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
- Population focus not identified

Cancer Control Building Block
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

- Primary area
- Cross-referenced/Secondary area
VIRTUAL REALITY SIMULATION TRAINING FOR HEALTH PROFESSIONS TRAINEES IN GASTROINTESTINAL ENDOSCOPY

References for description of strategy


Evidence base


Further reading

Prostate cancer is the most frequently diagnosed cancer in men, and the second leading cause of cancer death in men. In 2013, an estimated 238,590 new cases of prostate cancer were expected to be diagnosed in the United States (and an estimated 430 new cases were expected to be diagnosed in Wyoming). Incidence rates are significantly higher in African American men than in white men, and the reasons for this disparity are unclear. Prostate cancer incidence rates have changed substantially over the past 20 years, reflecting the introduction of the prostate-specific antigen (PSA) blood test to screen for prostate cancer. Well-established risk factors for prostate cancer are age, race/ethnicity, and a family history of the disease. Approximately 63% of all prostate cancer cases are diagnosed in men, age 65 and older. Genetics studies suggest that strong family predisposition may be responsible for 5-10% of prostate cancers (American Cancer Society [ACS], 2013).

In 2008, 52.2% of Wyoming men over 50 had received in the last year a digital exam to screen for prostate cancer (Wyoming Department of Health, 2010). Currently, more research is needed to know if tests to detect early prostate cancer should be routinely conducted. The ACS recommends that healthcare providers discuss the potential benefits and limitations of prostate cancer early detection testing with their male patients. ACS also recommends that the PSA blood test and a digital rectal examination (DRE) be offered annually to men, 50 and older, who are at average risk of prostate cancer, do not have any major medical problems, and have a life expectancy of at least 10 years (ACS Prostate Cancer Advisory Committee et al., 2010).

Although some controversy surrounds the PSA blood test, the digital rectal exam remains an effective technique for detecting swelling of the prostate. The WCCCC concurs with the American Urological Association that no single PSA standard applies to all men. Applying population-based cut points while ignoring other individual risk factors (e.g., age, ethnicity, family history, previous biopsy characteristics) may not give men an optimal assessment of their risk, including the risk of high-grade disease.
References


DIAGNOSIS & TREATMENT
DIAGNOSIS & TREATMENT

The lack of medical sub-specialists and specialized modalities for diagnosis and treatment, the absence of culturally appropriate practices, and the cost of travel and transportation (because of the long distances many Wyoming residents must travel to reach specialized diagnostic and treatment centers) combine to challenge the Wyoming’s ability to provide quality care to cancer patients. Ongoing advancements in medicine, science, and technology make it difficult for general physicians, family practitioners, internists, general pediatricians, and general surgeons—the people who provide much of the cancer treatment in Wyoming—to keep current on the research and, therefore, to provide their patients with best practices. Although expanding the number of cancer specialists in Wyoming could resolve this problem, Wyoming’s low population doesn’t justify the recruitment of specialists.

In 2008, 1,212 physicians provided care in Wyoming, which equated to 1 physician for every 227 residents (Wyoming Department of Administration and Information Economic Analysis Division, 2010). Finally, the lack of specialists, particularly pediatric oncologists, necessitates that Wyomingites travel out of the state for certain cancer-related diagnoses and treatments, putting an additional burden on patients and their families.
References

Description of strategy
Waiting for and receiving a first diagnosis of breast cancer (primary diagnosis) can be an extremely stressful experience. Studies suggest that what a health care provider tells patients at this time can influence their sense of well being, the way they cope with the news, how much they recall, and their overall satisfaction with the communication.

A range of health professionals, such as general practitioners or specialists, can deliver a diagnosis of confirmed breast cancer in a variety of ways, including face-to-face consultation and telephone consultation. Additionally, they can use written or audiovisual materials to help in conveying information (Lockhart, Dossor, Cruickshank, Kennedy, 2007).

Discussion of effectiveness
Although no RCTs were identified, findings from previous studies and reviews of the methods of communicating with cancer patients generally indicate that the method of delivering information has the potential to influence such factors as patient recall and satisfaction. Some findings also favor a patient-centered approach to communication.

The lack of relevant RCT studies has, however, highlighted the possible ethical issues related to obtaining informed consent from women before they have a confirmed diagnosis. At a time of possible heightened anxiety for women awaiting a diagnosis, it is unlikely that approaching them to take part in an RCT would gain ethical approval. Because some of the research related to the first consultation visit, where treatment options are discussed, a review focused on the methods of communication at the first consultation visit might provide more reliable evidence for the effectiveness of methods of communication (Lockhart, Dossor, Cruickshank, Kennedy, 2007).

Discussion of program costs
Discussion of program costs not available.
Methods of Communicating Primary Diagnosis of Breast Cancer to Patients

References for description of strategy

Evidence base

Further reading

QUALITY OF LIFE
Quality of life (QOL) has always been of interest to cancer patients and cancer survivors. For decades, the primary focus of cancer research was on diagnosis and treatment. The field experienced an important shift when it began viewing cancer patients and survivors in an holistic way and began focusing on their psychological, social, and spiritual needs.

QOL research first addressed pain management and palliative and end-of-life care for cancer patients. Pain management for both acute and chronic pain continues to be a vital part of quality of life discussions for cancer patients and survivors. The goal of palliative care is to provide the best possible quality of life for patients and their families. Pain management, rehabilitation, and hospice care continue to be the backbone of QOL efforts for cancer patients.

According to the Wyoming Workers Compensation Program, in 2006, 23,896 bills were paid on claims involving pain of some type (e.g., back pain, leg pain, and joint pain) totaling to more than $6.4 million dollars. Additionally, in 2006, 6,544 Wyoming hospital discharges related to a diagnosis of pain. Although bills and discharges related to cancer pain cannot be separated out in these data, pain related to cancer diagnoses affects thousands of Wyoming residents every year and Wyoming needs an integrated and organized plan to address it.
COMMUNICATION SKILLS TRAINING FOR HEALTHCARE PROFESSIONALS WORKING WITH OTHER PEOPLE WHO HAVE CANCER

Description of strategy
Communication skills training (CST) generally focuses on communication between healthcare professionals (HCPs) and patients during the formal assessment procedure (interview) and emphasize skills for building a relationship, providing structure to the interview, initiating the session, gathering information, explaining the diagnosis and prognosis, planning for treatment, and ending the session (Silverman, Kurtz, & Draper, 2005).
Most approaches to teaching health care communication skills incorporate cognitive, affective, and behavioral components, with the aim of promoting greater self-awareness in the HCP. CST courses should also seek to ensure appropriate information-giving skills in HCP participants. Essential components that facilitate the learning of communication skills (e.g., Gysels, Richardson, & Higginson, 2004; Stiefel et al., 2010) include the following:

- Systematic delineation and definition of the essential skills (verbal, non-verbal and para-linguistic);
- Presentation of skills that are effective in communication with cancer patients (e.g. the use of open questions, incorporating a psychosocial assessment, demonstrating empathy);
- Observation of learners;
- Well-intentioned, descriptive verbal or written feedback;
- Review and self-reflection of video or audio-recordings;
- Repeated practice;
- Active small group or one-on-one learner-centered learning;
- Facilitation by those with training and experience (Bylund et al., 2009; Moore, River Mercado, Grez & Lawrie, 2013).

Discussion of effectiveness
CST using learner-centered, experiential education methods presented by experienced facilitators can result in improvements in some communication skills for HCPs working in cancer care, particularly in the expression of empathy and the gathering of information. CST based on acquiring skills may be more effective than programs based on attitudes or specific tasks (Kurtz, Silverman, & Draper, 2005), and CST is considered to be more effective if experiential. CST appears to have little measurable benefit on patients.
Research has not shown whether the communication skills acquired by HCPs are retained in the long term nor has it identified the most effective type, duration, and intensity of CST (Moore, River Mercado, Grez & Lawrie, 2013).

Discussion of program costs
Discussion of program costs not available.
Communication Skills Training for Healthcare Professionals Working with Other People Who Have Cancer

References for description of strategy


Evidence base

Further reading
**Exercise Interventions on Health-Related Quality of Life for Cancer Survivors**

**Description of strategy**
Cancer and its treatment leave cancer survivors experiencing numerous adverse outcomes and poor health-related quality of life (HRQoL). HRQoL includes physical functioning, role functioning, social functioning, and fatigue. Exercise may have beneficial effects on these outcomes (Mishra, Scherer, Geigle, Berlanstein, Topaloglu, Gotay, & Snyder, 2012).

**Discussion of effectiveness**
Research suggests that exercise may have beneficial effects on HRQoL including cancer-specific concerns (e.g. breast cancer), body image/self-esteem, emotional well-being, sexuality, sleep disturbance, social functioning, anxiety, fatigue, and pain at varying follow-up periods. These positive results should be interpreted cautiously because of the heterogeneity of the tested exercise programs and HRQoL measures. Additionally, some of the trials had a potential for bias. Further research, by cancer type and cancer treatment, should focus on determining how to sustain positive effects over time and the essential attributes of exercise (mode, intensity, frequency, duration, timing) for producing optimal HRQoL outcomes (Mishra, Scherer, Geigle, Berlanstein, Topaloglu, Gotay, & Snyder, 2012).

**Discussion of program costs**
Discussion of program costs not available.
EXERCISE INTERVENTIONS ON HEALTH-RELATED QUALITY OF LIFE FOR CANCER SURVIVORS

References for description of strategy

Evidence base

Further reading
**Exercise Interventions on Health-Related Quality of Life for People with Cancer During Active Treatment**

**Description of strategy**
People with cancer who are undergoing active treatment experience numerous disease- and treatment-related adverse outcomes and poor health-related quality of life (HRQoL). HRQoL includes physical functioning, role functioning, social functioning, and fatigue. Exercise interventions may alleviate these adverse outcomes (Mishra, Scherer, Snyder, Geigle, Berlanstein, & Topaloglu, 2012).

**Discussion of effectiveness**
Research indicates that exercise may have beneficial effects on HRQoL. Positive effects are more pronounced with moderate to vigorous intensity versus mild intensity exercise programs. Positive results should be interpreted cautiously because of the heterogeneity of the tested exercise programs and HRQoL measures as well as the potential for bias in many of the trials. Further research, by cancer type and cancer treatment, should focus on determining how to sustain positive effects over time and the essential attributes of exercise (mode, intensity, frequency, duration, timing) for producing optimal HRQoL outcomes (Mishra, Scherer, Geigle, Berlanstein, Topaloglu, Gotay, & Snyder, 2012).

**Discussion of program costs**
Discussion of program costs not available.

**Goal Area:** Quality of Life  
**Focus Area:** Physical therapies  
**Other names/examples:** None

**Evidence Source**  
- Cochrane Library  
- The Community Guide  
- RTIPs

**Cancer Focus**  
- Breast  
- Cervical  
- Colorectal  
- Lung  
- Prostate  
- Skin  
- Cancer focus not identified

**Population Focus**  
- Children and Youth  
- Young Adults  
- College/University Students  
- Adults  
- Other  
- Population focus not identified

**Cancer Control Building Block**  
- Enhance Infrastructure  
- Mobilize Support  
- Utilize Data & Research  
- Build Partnerships  
- Assess/Address Cancer Burden  
- Conduct Evaluation

- Primary area  
- Cross-referenced/Secondary area
References for description of strategy

Evidence base

Further reading


INTERVENTIONS FOR REDUCING FATIGUE DURING CANCER TREATMENTS IN ADULTS

Description of strategy
Cancer-related fatigue (CRF) is one of the symptoms most commonly reported by cancer patients and treating it is gaining more recognition by oncologists. The National Comprehensive Cancer Network (NCCN) defines CRF as a distressing, persistent, subjective sense of physical, emotional, and/or cognitive tiredness or exhaustion that is not proportional to recent activity, that interferes with usual functioning, and that is related to cancer or cancer treatment (NCCN, 2008). Cancer patients can experience fatigue at different stages of treatment or shortly after finishing treatment. Disease-free cancer patients can also experience fatigue.

Efforts to manage fatigue should first focus on identifying and treating the co-morbidities that may cause it (e.g., anemia or hypothyroidism). However, patients often cannot identify a specific cause for fatigue other than the cancer or the cancer treatment itself. In these situations, the management of fatigue usually involves multiple strategies, divided into pharmacological and non-pharmacological interventions. In general, during these interventions, patients are educated about fatigue self-care or coping techniques, and they learn to manage their activity (Goedendorp, Gielissen, Verhagen, & Bleijenberg, 2009).

Discussion of effectiveness
Limited evidence shows psychosocial interventions are effective in reducing fatigue while patients are actively engaged in cancer treatment. Interventions showing the most promise are psychosocial interventions specifically designed to treat fatigue. Interventions that did not focus on fatigue were rarely effective in reducing fatigue (Goedendorp, Gielissen, Verhagen, & Bleijenberg, 2009).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Quality of Life
Focus Area: Psychosocial interventions
Other names/examples: None

Evidence Source
Cochrane Library
The Community Guide
RTIps

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
INTERVENTIONS FOR REDUCING FATIGUE DURING CANCER TREATMENTS IN ADULTS

References for description of strategy


Evidence base

Further reading

Description of strategy

A diagnosis of cancer can be psychologically and emotionally challenging and the patient’s and family’s associated needs should be addressed appropriately. The psychological and emotional impact of a cancer diagnosis can be influenced by many factors including the way clinicians impart a diagnosis, previous history of psychological morbidity, and the personal characteristics of the patient (Sellick & Crooks, 1999; Turton & Cooke, 2000). The most common reaction to a cancer diagnosis is emotional distress followed by a phase of taking control (i.e., seeking information and finding appropriate help; Turton & Cooke, 2000).

Over the past three decades, a variety of individual and group-based psychosocial interventions have been developed specifically for people with cancer. A psychosocial (or psychological, psychotherapeutic, or psychoeducational) intervention is non-pharmacological and builds an interpersonal relationship between a patient or group of patients and one or more trained (usually professional) helpers (Galway, Black, Cantwell, Cardwell, Mills, & Donnelly, 2012). These interventions vary widely in theoretical background, complexity, content, and mode of delivery (Stanton, 2006; Weis, 2003).

Periodic risk screening can identify and target patients most at risk of experiencing emotional difficulties and, therefore, most in need of support. Risk screening can also look at a range of possible intervention types and select the one best suited to identified needs. The international guidelines for psychosocial oncology (Coleman, 2011) recommend using a tiered intervention approach in combination with strategic periodic risk screening to identify levels of need.

Discussion of effectiveness

Limited evidence suggests that nurse-led interventions delivered in person or by telephone and as part of a package of cancer care improve illness-specific quality of life and mood. However, not enough evidence supports these interventions to apply them universally to all patients.

Oncology teams may benefit from assessing the economic and practical viability of including psychosocial support in the duties of specialist cancer nurses working within existing health service structures (Galway, Black, Cantwell, Cardwell, Mills, & Donnelly, 2012).

Discussion of program costs

Discussion of program costs not available.
Interventions to Improve Quality of Life and Emotional Wellbeing for Recently Diagnosed Cancer Patients

References for description of strategy


Evidence base


Further reading


**Psychotherapy for Depression among Incurable Cancer Patients**

**Description of strategy**

Although any cancer patient may experience depression, depressive states are more common amongst advanced or incurable cancer patients. Depression is associated with myriad complications among cancer patients. Psychotherapy interventions delivered by health care professionals who use direct verbal and/or interactive communication can ameliorate or prevent psychological distress. The most common verbal and interactive psychotherapeutic intervention is long-term continuous supportive therapy, which typically continues until the patient’s death.

In seeking to investigate the effectiveness of psychotherapy for treating depression in incurable cancer patients, the researchers included studies involving psychotherapy of any kind. The review examined the effect of a broad range of psychological interventions, including several unique interventions (e.g., music therapy) that could be used in a palliative care setting. Other forms of psychotherapy (e.g., aromatherapy, therapeutic touch) were not included (Akechi, Okuyama, Onishi, Mortia, & Furukawa, 2008).

**Discussion of effectiveness**

Evidence from RCTs of moderate quality suggests that psychotherapy is useful for treating some less severe depressive states in advanced cancer patients. Little evidence, however, supports the effectiveness of psychotherapy for patients with clinically diagnosed depression, including major depressive disorder. Long-term continuous interventions requiring trained mental health professionals may not be easy to provide to all patients; consequently, the findings suggest that psychological interventions should be combined with routine patient care in treating patients with advanced cancer (Akechi, Okuyama, Onishi, Mortia, & Furukawa, 2008).

**Discussion of program costs**

Discussion of program costs not available.

**Goal Area:** Quality of Life  
**Focus Area:** Psychosocial interventions  
**Other names/examples:** None

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- Insufficient evidence
- Varied evidence of effectiveness
- Effective

**Evidence Source**
- Cochrane Library
- The Community Guide
- RTIPs

**Cancer Focus**
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin

**Population Focus**
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other

**Cancer Control Building Block**
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/Address Cancer Burden
- Conduct Evaluation

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*WYSAC, University of Wyoming*  
*179  Evidence-Based Strategies in Comprehensive Cancer Control*
References for description of strategy

Evidence base

Further reading
SPECIALIST BREAST CARE NURSES FOR SUPPORTIVE CARE OF WOMEN WITH BREAST CANCER

Description of strategy
Thanks to treatment advances, improved screening, and a multi-professional approach to the management of breast cancer, survival rates for women with breast cancer have improved dramatically over the last 20 years. Breast Care Nurses (BCNs) work within this multi-professional environment offering interventions such as support, information, patient advocacy, and serving as a liaison among the members of the patient’s healthcare team. Reviewers assessed the effectiveness of individual interventions used by BCNs on quality of life outcomes for women with breast cancer (Cruickshank, Kennedy, Lockhart, Dosser, & Dallas, 2008).

Discussion of effectiveness
Limited evidence indicates that interventions by BCNs have a short-term impact on the psychological distress of women with breast cancer. Further research is needed on the impact of BCNs in improving the quality of life for women with breast cancer (Cruickshank, Kennedy, Lockhart, Dosser, & Dallas, 2008).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Quality of Life
Focus Area: Supportive care
Other names/examples: Breast Cancer Education Intervention (RTIPs)

Evidence Source
Cochrane Library
The Community Guide
RTIPs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
SPECIALIST BREAST CARE NURSES FOR SUPPORTIVE CARE OF WOMEN WITH BREAST CANCER

References for description of strategy

Evidence base

Further reading
CHILDHOOD CANCER
Cancer is the second leading cause of death in children, exceeded only by accidents (American Cancer Society [ACS], 2013). Cancer kills more children than asthma, diabetes mellitus, cystic fibrosis, congenital anomalies, and AIDS combined (National Cancers Registrars Association, 2011). Over the past 20 years, there has been some increase in the incidence of children diagnosed with all forms of invasive cancer (National Cancer Institute, 2005). Nationwide, experts estimated that in 2013, 11,630 children, ages 0 to 14, would be first diagnosed with cancer and that 1,310 deaths would be reported, with about one-third of these from leukemia. The two most common childhood cancers are leukemia (31% of all childhood cancers) and brain or other nervous system tumors (25% of all childhood cancers). Mortality rates for childhood cancer have declined by 50% since 1975, attributable largely to improved treatments and the high proportion of patients participating in clinical trials (ACS, 2013).

In Wyoming, from 2000-2008, 185 children and youth, ages 0 to 19, were diagnosed with cancer. This number represents approximately 20 cases per year. During this same period and for the same age group, 28 deaths were reported (Wyoming Department of Health, 2012). These deaths represent 1,796 Years of Potential Life Lost (YPLL).

Currently, all Wyoming children diagnosed with cancer must travel out of state to receive specialized cancer care, as no cancer programs or hospitals in the state are staffed and equipped to handle pediatric cancer cases. As mentioned in the Wyoming Comprehensive Cancer Control Consortium publication, *Childhood Cancer: A Look at Wyoming’s Most Valuable Resources*; many childhood cancer survivors later experience effects from their cancer and its related treatment. These long-term effects may include infertility and stunting of normal physical and mental development. Other known medical concerns include learning disabilities, toxicity complications, and re-occurrence of the cancer.

Unlike many cancers in adults, no avoidable risk factors are known to influence a child’s risk of getting cancer. When a child develops cancer, nothing the child or the parents did caused it (ACS, 2014). Early symptoms are usually nonspecific, so children should have regular medical check-ups and parents should be alert to any unusual and persistent symptoms. These symptoms may include an unusual mass or swelling; unexplained pallor or loss of energy; sudden tendency to bruise; a persistent, localized pain; prolonged, unexplained fever or illness; frequent headaches, often with vomiting; sudden eye or vision changes; and excessive, rapid weight loss (ACS, 2013).
References


INTERVENTIONS FOR PROMOTING PARTICIPATION IN SHARED DECISION-MAKING FOR CHILDREN WITH CANCER

Description of strategy
In general, children with cancer want to participate in decision-making concerning their health care, including end-of-life decisions. Considerable research supports involving children in healthcare decision-making at a level commensurate with their experience, age, and abilities. Thus, healthcare professionals and parents need to know how to involve children in decision-making and what interventions are most effective in promoting shared decision-making (SDM) for children with cancer.

Examples of SDM interventions include the following:
- Communication interventions that provide information to a child, parent, and/or healthcare provider such as booklets, videos, web resources, workbooks, posters, meetings, role playing, and puppets;
- Educational interventions for parents, children, or both (e.g., specific educational programs, memory prompts, pre-consultation rehearsal questions, question prompt sheets, decision aids or boards, online decision support tutorials, leaflets, posters, media, implementation of models of participation, guidelines);
- Training interventions for healthcare professionals to promote their implementation of SDM;
- Opportunities to review decisions made (Coyne, O’Mathuna, Gibson, Shields, & Sheaf, 2013).

Discussion of effectiveness
The dearth of high-quality quantitative research on interventions to promote participation in SDM for children, ages 4 to 18, with cancer means no conclusions can be drawn about the effectiveness of these interventions. More research is needed (Coyne, O’Mathuna, Gibson, Shields, & Sheaf, 2013).

Discussion of program costs
Discussion of program costs not available.

Goal Area: Childhood Cancer
Focus Area: Supportive care
Other names/examples: None

Evidence Source
- Cochrane Library
- The Community Guide
- RTIPs

Cancer Focus
- Breast
- Cervical
- Colorectal
- Lung
- Prostate
- Skin
  Cancer focus not identified

Population Focus
- Children and Youth
- Young Adults
- College/University Students
- Adults
- Other
  Population focus not identified

Cancer Control Building Block
- Enhance Infrastructure
- Mobilize Support
- Utilize Data & Research
- Build Partnerships
- Assess/ Address Cancer Burden
- Conduct Evaluation

Primary area
Cross-referenced/Secondary area
INVENTIONS FOR PROMOTING PARTICIPATION IN SHARED DECISION-MAKING FOR CHILDREN WITH CANCER

References for description of strategy

Evidence base

Further reading
INTERVENTIONS FOR PARENTS OF CHILDREN AND ADOLESCENTS WITH CHRONIC ILLNESS

Description of strategy
Parenting a child with a longstanding or life-threatening illness may have a negative impact on many aspects of a parent’s and family’s life. Parents of these children often have difficulty balancing the care this child needs with their other responsibilities such as work, caring for other children in the family, paying bills, and managing other household tasks. As a result, parents may experience more stress, worries, sad feelings, family arguments, and troubling child behavior. Parents also have a major influence on their child’s well-being and adjustment, and they play an important role in how their child adapts to living with an illness.

Interventions for parents of children with a longstanding illness aim to alleviate parent and child distress, improve parenting, reduce family conflict, child disability, and the child’s medical symptoms. Such interventions include cognitive behavioral therapy (CBT) and problem solving therapy, which has been used with parents and children suffering from various chronic illnesses (D’Zurilla 1995; Sahler 2002). Other successful treatments (e.g., multi-systemic therapy or family therapy) have emerged from a family systems approach that focuses on the family as the unit of intervention (Ellis 2005; Wysocki 2000; Eccleston, Palermo, Fisher, & Law, 2012).

Discussion of effectiveness
Research has shown CBT to be effective with children experiencing painful conditions (e.g. Eccleston 2009; Palermo 2009). Evidence strongly supports including parents in psychological therapies that reduce pain in children suffering from painful conditions. Research also documents the effectiveness of including parents in CBT to improve the primary symptom complaints associated with chronic illnesses. Finally, problem solving therapy delivered to parents to improve their problem solving skills and mental health is effective (Eccleston, Palermo, Fisher, & Law, 2012).

When used with parents of children with common chronic illnesses, no evidence shows that psychological therapies are effective in improving parental functioning.

Discussion of program costs
Discussion of program costs not available.

Goal Area: Childhood Cancer
Focus Area: Psychosocial interventions
Other names/examples: Bright IDEAS: Problem-Solving Skills Training (RTIPs)

Evidence Source
Cochrane Library
The Community Guide
RTIPs

Cancer Focus
Breast
Cervical
Colorectal
Lung
Prostate
Skin
Cancer focus not identified

Population Focus
Children and Youth
Young Adults
College/University Students
Adults
Other
Population focus not identified

Cancer Control Building Block
Enhance Infrastructure
Mobilize Support
Utilize Data & Research
Build Partnerships
Assess/ Address Cancer Burden
Conduct Evaluation

Primary area
Cross-referenced/Secondary area
INTERVENTIONS FOR PARENTS OF CHILDREN AND ADOLESCENTS WITH CHRONIC ILLNESS

References for description of strategy

Evidence base


Further reading

### Ineffective strategies

<table>
<thead>
<tr>
<th>Strategy name</th>
<th>Resource</th>
<th>Cancer focus</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prevention</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Early Detection</strong></td>
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</tr>
</tbody>
</table>
## APPENDIX B

### Research-tested Intervention Programs (RTIPs)

<table>
<thead>
<tr>
<th>RTIPs strategy</th>
<th>Description</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tobacco</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Smoking Prevention Interactive Experience (ASPIRE)</td>
<td>Designed to prevent tobacco use among high school students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=2446322">http://rtips.cancer.gov/rtips/programDetails.do?programId=2446322</a></td>
</tr>
<tr>
<td>Clear Horizons</td>
<td>Self-help guide and telephone counseling protocol specifically tailored for the smoking habits, quitting needs, and lifestyles of older smokers.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=186990">http://rtips.cancer.gov/rtips/programDetails.do?programId=186990</a></td>
</tr>
<tr>
<td>Commit to Quit</td>
<td>Designed to test the efficacy of vigorous-intensity physical activity as an aid for smoking cessation for women.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=109261">http://rtips.cancer.gov/rtips/programDetails.do?programId=109261</a></td>
</tr>
<tr>
<td>Enhancing Tobacco Control Policies in Northwest Indian Tribes</td>
<td>Designed to change tobacco-use policies at the community level.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=113974">http://rtips.cancer.gov/rtips/programDetails.do?programId=113974</a></td>
</tr>
<tr>
<td>Family Matters</td>
<td>Designed to promote tobacco use prevention among middle school children.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=468157">http://rtips.cancer.gov/rtips/programDetails.do?programId=468157</a></td>
</tr>
<tr>
<td>Forever Free</td>
<td>Designed to test relapse-prevention materials with self-quitters as compared to a more formal treatment program.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=102965">http://rtips.cancer.gov/rtips/programDetails.do?programId=102965</a></td>
</tr>
<tr>
<td>High Impact Therapy for Pregnant Smokers</td>
<td>Designed to promote smoking cessation among pregnant women.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=312134">http://rtips.cancer.gov/rtips/programDetails.do?programId=312134</a></td>
</tr>
<tr>
<td>It's Your Life - It's Our Future</td>
<td>Smoking cessation program designed for American Indians in California.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=111890">http://rtips.cancer.gov/rtips/programDetails.do?programId=111890</a></td>
</tr>
<tr>
<td>Kentucky Adolescent Tobacco Prevention Program</td>
<td>Designed to prevent tobacco use among adolescents living in high tobacco production areas.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=184343">http://rtips.cancer.gov/rtips/programDetails.do?programId=184343</a></td>
</tr>
<tr>
<td>Minnesota Smoking Prevention Program (MSPP)</td>
<td>Designed to prevent tobacco use among students in grades 4-12.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=614342">http://rtips.cancer.gov/rtips/programDetails.do?programId=614342</a></td>
</tr>
<tr>
<td>Native FACETS</td>
<td>Designed to examine cancer risk among Native Americans through tobacco use prevention and dietary modification.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=111895">http://rtips.cancer.gov/rtips/programDetails.do?programId=111895</a></td>
</tr>
<tr>
<td>Partners in Quitting</td>
<td>Designed to promote smokeless tobacco cessation support among users.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=304682">http://rtips.cancer.gov/rtips/programDetails.do?programId=304682</a></td>
</tr>
<tr>
<td>Pathways to Change</td>
<td>Reports on a computer-based expert system intervention with the potential to increase successful smoking cessation.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=114629">http://rtips.cancer.gov/rtips/programDetails.do?programId=114629</a></td>
</tr>
<tr>
<td>Pathways to Health</td>
<td>School-based cancer prevention and health promotion program for 5th and 7th grade American Indian students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=104596">http://rtips.cancer.gov/rtips/programDetails.do?programId=104596</a></td>
</tr>
<tr>
<td>Project EX-4</td>
<td>Designed to promote smoking cessation and smoking prevention among high school students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=534937">http://rtips.cancer.gov/rtips/programDetails.do?programId=534937</a></td>
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<tr>
<td>Project Towards No Tobacco Use (TNT)</td>
<td>School-based prevention project designed to delay the initiation and reduce the use of tobacco by middle-school children.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=116931">http://rtips.cancer.gov/rtips/programDetails.do?programId=116931</a></td>
</tr>
<tr>
<td>Project WISE</td>
<td>Designed to promote smoking cessation among women smokers.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=898583">http://rtips.cancer.gov/rtips/programDetails.do?programId=898583</a></td>
</tr>
<tr>
<td>Sembrando Salud</td>
<td>Designed to improve parent-child communication skills as a way of improving and maintaining healthy youth decision making.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=107118">http://rtips.cancer.gov/rtips/programDetails.do?programId=107118</a></td>
</tr>
<tr>
<td>Spit Tobacco Intervention</td>
<td>Designed to promote cessation and reduce initiation of spit tobacco use among male high school athletes.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=192009">http://rtips.cancer.gov/rtips/programDetails.do?programId=192009</a></td>
</tr>
</tbody>
</table>
# Appendix B

## Research-tested Intervention Programs (RTIPs)

<table>
<thead>
<tr>
<th>RTIPs strategy</th>
<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>The Modification of Maternal Smoking (M.O.M.S.) Project</td>
<td>Designed to promote smoking cessation and prevent smoking relapse among pregnant women.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=160132">http://rtips.cancer.gov/rtips/programDetails.do?programId=160132</a></td>
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<tr>
<td><strong>Secondhand Smoke</strong></td>
<td></td>
<td></td>
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<tr>
<td>Enhancing Tobacco Control Policies in Northwest Indian Tribes</td>
<td>Designed to change tobacco-use policies at the community level.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=113374">http://rtips.cancer.gov/rtips/programDetails.do?programId=113374</a></td>
</tr>
<tr>
<td><strong>Nutrition and Physical Activity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S A Day Peer Education</td>
<td>Worksite program designed to increase fruit and vegetable consumption.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=230912">http://rtips.cancer.gov/rtips/programDetails.do?programId=230912</a></td>
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<tr>
<td>S-a-Day Power Plus</td>
<td>School-based program designed to increase fruit and vegetable consumption.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=209461">http://rtips.cancer.gov/rtips/programDetails.do?programId=209461</a></td>
</tr>
<tr>
<td>ALIVE!</td>
<td>Designed to promote healthy dietary habits and increase physical activity.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=557543">http://rtips.cancer.gov/rtips/programDetails.do?programId=557543</a></td>
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<tr>
<td>Bienestar</td>
<td>School-based program designed to promote healthy dietary habits and increase physical activity among elementary school students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=247904">http://rtips.cancer.gov/rtips/programDetails.do?programId=247904</a></td>
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<tr>
<td>Body &amp; Soul</td>
<td>Community-based program designed to increase fruit and vegetable consumption.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=257161">http://rtips.cancer.gov/rtips/programDetails.do?programId=257161</a></td>
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<tr>
<td>CARDIAC Kinder</td>
<td>Designed to promote healthy dietary habits and increase physical activity.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=794866">http://rtips.cancer.gov/rtips/programDetails.do?programId=794866</a></td>
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<tr>
<td>Community Healthy Activities Model Program for Seniors (CHAMPS)</td>
<td>Designed to increase physical activity among sedentary individuals.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=207001">http://rtips.cancer.gov/rtips/programDetails.do?programId=207001</a></td>
</tr>
<tr>
<td>Complete Health Improvement Program (CHIP)</td>
<td>Designed to promote healthy dietary habits to markedly reduce major risk factors for chronic disease.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=1194633">http://rtips.cancer.gov/rtips/programDetails.do?programId=1194633</a></td>
</tr>
<tr>
<td>Coordinated Approach to Child Health (CATCH)</td>
<td>Designed to promote healthy eating habits and increase physical activity among children and adolescents.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=175413">http://rtips.cancer.gov/rtips/programDetails.do?programId=175413</a></td>
</tr>
<tr>
<td>Eat for Life</td>
<td>Community-based program designed to promote healthy dietary habits.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=224488">http://rtips.cancer.gov/rtips/programDetails.do?programId=224488</a></td>
</tr>
<tr>
<td>Eat Well and Keep Moving</td>
<td>School-based program designed to increase physical activity and promote healthy dietary habits among 4th and 5th grade students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=217673">http://rtips.cancer.gov/rtips/programDetails.do?programId=217673</a></td>
</tr>
<tr>
<td>Eating for a Healthy Life (EHL) Project</td>
<td>Designed to promote healthy dietary habits among religious community members.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=304465">http://rtips.cancer.gov/rtips/programDetails.do?programId=304465</a></td>
</tr>
<tr>
<td>Evaluation and Modification of Exercise Patterns in the Natural Environment</td>
<td>Designed to increase physical activity among sedentary individuals.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=102595">http://rtips.cancer.gov/rtips/programDetails.do?programId=102595</a></td>
</tr>
<tr>
<td>Exercise and Physical Functional Performance in Independent Older Adults</td>
<td>Designed to enhance body endurance and body strength among older adults.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=160132">http://rtips.cancer.gov/rtips/programDetails.do?programId=160132</a></td>
</tr>
<tr>
<td>Gimme 5</td>
<td>School-based program designed to increase fruit and vegetable consumption.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=167779">http://rtips.cancer.gov/rtips/programDetails.do?programId=167779</a></td>
</tr>
<tr>
<td>Healthy Body Healthy Spirit</td>
<td>Community-based program designed to promote healthy dietary habits and increase physical activity.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=220755">http://rtips.cancer.gov/rtips/programDetails.do?programId=220755</a></td>
</tr>
<tr>
<td>High 5 Flyer Program</td>
<td>Designed to increase fruit and vegetable consumption among elementary school students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=291288">http://rtips.cancer.gov/rtips/programDetails.do?programId=291288</a></td>
</tr>
<tr>
<td>High 5 Fruit and Vegetable Intervention for 4th Graders</td>
<td>School-based program designed to increase fruit and vegetable consumption.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=196124">http://rtips.cancer.gov/rtips/programDetails.do?programId=196124</a></td>
</tr>
<tr>
<td>Middle School Physical Activity and Nutrition (MSPAN)</td>
<td>Designed to increase physical activity and promote healthy dietary habits among Grade 6-8 level students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=285123">http://rtips.cancer.gov/rtips/programDetails.do?programId=285123</a></td>
</tr>
<tr>
<td>Native FACETS</td>
<td>Designed to examine cancer risk among Native Americans through tobacco use prevention and dietary modification.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=118905">http://rtips.cancer.gov/rtips/programDetails.do?programId=118905</a></td>
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<tr>
<td>New Moves</td>
<td>Designed to promote healthy dietary habits and increase physical activity to reduce obesity.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=236223">http://rtips.cancer.gov/rtips/programDetails.do?programId=236223</a></td>
</tr>
<tr>
<td>North Carolina Black Churches United for Better Health Project</td>
<td>Designed to increase fruit and vegetable consumption.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=203202">http://rtips.cancer.gov/rtips/programDetails.do?programId=203202</a></td>
</tr>
</tbody>
</table>
# Appendix B

## Research-tested Intervention Programs (RTIPs)

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<thead>
<tr>
<th>RTIPs strategy</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Nutrition to Grow On</td>
<td>Designed to promote healthy dietary habits among elementary school students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=1073505">http://rtips.cancer.gov/rtips/programDetails.do?programId=1073505</a></td>
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<tr>
<td>Parents As Teachers (PAT) High 5 Low Fat Program</td>
<td>Designed to increase fruit and vegetable consumption and promote healthy dietary habits.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=245394">http://rtips.cancer.gov/rtips/programDetails.do?programId=245394</a></td>
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<tr>
<td>Patient-centered Assessment and Counseling for Exercise (PACE)</td>
<td>Designed to increase physical activity among sedentary individuals.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=199774">http://rtips.cancer.gov/rtips/programDetails.do?programId=199774</a></td>
</tr>
<tr>
<td>Physical Activity and Nutrition for Health</td>
<td>Designed to increase physical activity and promote healthy dietary habits.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=298373">http://rtips.cancer.gov/rtips/programDetails.do?programId=298373</a></td>
</tr>
<tr>
<td>Planet Health</td>
<td>School-based program designed to increase physical activity and promote healthy dietary habits to reduce obesity among 6th, 7th, and 8th grade students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=215102">http://rtips.cancer.gov/rtips/programDetails.do?programId=215102</a></td>
</tr>
<tr>
<td>Promoting Healthy Living: Assessing More Effects (PHLAME)</td>
<td>Designed to increase physical activity and promote healthy dietary habits to reduce obesity.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=288026">http://rtips.cancer.gov/rtips/programDetails.do?programId=288026</a></td>
</tr>
<tr>
<td>Seattle 5-a-Day Program</td>
<td>Worksite program designed to increase fruit and vegetable consumption.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=171045">http://rtips.cancer.gov/rtips/programDetails.do?programId=171045</a></td>
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<tr>
<td>SHAPEDOWN</td>
<td>Designed to promote healthy dietary habits and increase physical activity among obese adolescents.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=253550">http://rtips.cancer.gov/rtips/programDetails.do?programId=253550</a></td>
</tr>
<tr>
<td>Smart Moves / Bright Bodies</td>
<td>Designed to promote healthy dietary habits and physical activity to reduce obesity.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=1806571">http://rtips.cancer.gov/rtips/programDetails.do?programId=1806571</a></td>
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<tr>
<td>Sports, Play and Active Recreation for Kids (SPARK)</td>
<td>Designed to increase physical activity among 4th and 5th grade students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=201624">http://rtips.cancer.gov/rtips/programDetails.do?programId=201624</a></td>
</tr>
<tr>
<td>Strong Women - Healthy Hearts</td>
<td>Designed to promote healthy dietary habits and increase physical activity to reduce obesity.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=1194691">http://rtips.cancer.gov/rtips/programDetails.do?programId=1194691</a></td>
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<tr>
<td>Teens Eating for Energy and Nutrition at School (TEENS)</td>
<td>School-based program designed to increase fruit and vegetable consumption and to promote healthy dietary habits.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=346310">http://rtips.cancer.gov/rtips/programDetails.do?programId=346310</a></td>
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<tr>
<td>The Physical Activity and Teenage Health (PATH) Program</td>
<td>Designed to increase physical activity and promote healthy dietary habits among adolescents.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=781968">http://rtips.cancer.gov/rtips/programDetails.do?programId=781968</a></td>
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<tr>
<td>The Treatwell 5-a-Day Program</td>
<td>Worksite program designed to increase fruit and vegetable consumption.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=173315">http://rtips.cancer.gov/rtips/programDetails.do?programId=173315</a></td>
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<tr>
<td>Web-Based Physical Activity Intervention for College-Aged Women</td>
<td>Designed to promote physical activity among women.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=1896764">http://rtips.cancer.gov/rtips/programDetails.do?programId=1896764</a></td>
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<tr>
<td>Wheeling Walks</td>
<td>Designed to increase physical activity among sedentary individuals.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=234167">http://rtips.cancer.gov/rtips/programDetails.do?programId=234167</a></td>
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<tr>
<td>Youth Fit For Life</td>
<td>School-based program designed to increase physical activity among students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=293932">http://rtips.cancer.gov/rtips/programDetails.do?programId=293932</a></td>
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## Ultraviolet Exposure

<table>
<thead>
<tr>
<th>Description</th>
<th>Website</th>
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<tr>
<td>Designed to reduce indoor tanning through the awareness of the harmful effects of exposure to UV radiation.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=310543">http://rtips.cancer.gov/rtips/programDetails.do?programId=310543</a></td>
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<tr>
<td>Designed to promote sun safety practices to ski area employees.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=308006">http://rtips.cancer.gov/rtips/programDetails.do?programId=308006</a></td>
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<tr>
<td>Designed to increase awareness and promote sun protection behavior and practices.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=298856">http://rtips.cancer.gov/rtips/programDetails.do?programId=298856</a></td>
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<tr>
<td>Designed to increase awareness and promote sun protection behavior and practices.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=288737">http://rtips.cancer.gov/rtips/programDetails.do?programId=288737</a></td>
</tr>
<tr>
<td>Designed to increase the effectiveness of pharmacists in delivering skin cancer prevention counseling.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=282372">http://rtips.cancer.gov/rtips/programDetails.do?programId=282372</a></td>
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</table>
### Research-tested Intervention Programs (RTIPs)

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</thead>
<tbody>
<tr>
<td>Skin Cancer Prevention: Useful Information for Parents formed the Fields of Behavioral Science and Dermatology</td>
<td>Designed to increase awareness and promote sun protection behavior and practices among young adolescents.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=312266">http://rtips.cancer.gov/rtips/programDetails.do?programId=312266</a></td>
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<tr>
<td>Sun Protection for Florida’s Children</td>
<td>Designed to increase awareness and promote sun protection behavior and practices among elementary school students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=1426325">http://rtips.cancer.gov/rtips/programDetails.do?programId=1426325</a></td>
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<tr>
<td>Sun Safe</td>
<td>Designed to enhance and promote sun protective behaviors.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=180266">http://rtips.cancer.gov/rtips/programDetails.do?programId=180266</a></td>
</tr>
<tr>
<td>Sun Safety Among U.S. Postal Service Letter Carriers (&quot;Project SUNWISE&quot;)</td>
<td>Designed to promote sun safety practices to postal service letter carrier employees.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=313055">http://rtips.cancer.gov/rtips/programDetails.do?programId=313055</a></td>
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<tr>
<td>Sunny Days Healthy Ways - Elementary School (Grades K-5)</td>
<td>Designed to increase awareness and promote sun protection behavior and practices among K-5th grade students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=320468">http://rtips.cancer.gov/rtips/programDetails.do?programId=320468</a></td>
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<tr>
<td>Sunny Days Healthy Ways - Middle School (Grades 6-8)</td>
<td>Designed to increase awareness and promote sun protection behavior and practices among 6th - 8th grade students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=283941">http://rtips.cancer.gov/rtips/programDetails.do?programId=283941</a></td>
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<tr>
<td>SunSafe in the Middle School Years</td>
<td>Designed to increase awareness and promote sun protection behavior and practices.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=293179">http://rtips.cancer.gov/rtips/programDetails.do?programId=293179</a></td>
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<tr>
<td>The E.P.A. SunWise Program</td>
<td>Designed to increase awareness and promote sun protection behavior and practices among K-8th grade students.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=750343">http://rtips.cancer.gov/rtips/programDetails.do?programId=750343</a></td>
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<tr>
<td>The Raybusters Program: Early Interventions for Creating Sun Smart Behavior</td>
<td>Designed to increase awareness and promote sun protection behavior and practices.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=298476">http://rtips.cancer.gov/rtips/programDetails.do?programId=298476</a></td>
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## Early Detection

### Breast Cancer

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<thead>
<tr>
<th>Breast Cancer Program</th>
<th>Description</th>
<th>Website</th>
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</thead>
<tbody>
<tr>
<td>Breast Health Education Among Hispanic Elderly Women</td>
<td>Designed to promote mammography screening by increasing awareness of breast cancer and addressing barriers to obtaining a mammogram.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=312766">http://rtips.cancer.gov/rtips/programDetails.do?programId=312766</a></td>
</tr>
<tr>
<td>Empowering Physicians to Improve Breast Cancer Screenings (EPICS)</td>
<td>Physician-based educational curriculum designed to increase physicians’ efforts to encourage women to receive regular mammograms.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=119841">http://rtips.cancer.gov/rtips/programDetails.do?programId=119841</a></td>
</tr>
<tr>
<td>Friend to Friend</td>
<td>Community-based intervention designed to increase mammography utilization among low-income women residing in public housing.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=150991">http://rtips.cancer.gov/rtips/programDetails.do?programId=150991</a></td>
</tr>
<tr>
<td>Increasing Mammography Among Long-term Noncompliant Medicare Beneficiaries</td>
<td>Designed to increase breast cancer screening by encouraging Medicare beneficiaries to obtain a mammogram.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=150991">http://rtips.cancer.gov/rtips/programDetails.do?programId=150991</a></td>
</tr>
<tr>
<td>Life is Precious - Hmong Breast Health Study</td>
<td>Designed to increase breast cancer screening among Hmong adults.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=1472410">http://rtips.cancer.gov/rtips/programDetails.do?programId=1472410</a></td>
</tr>
<tr>
<td>Mammography Promotion and Facilitated Appointments Through Community-based Influenza Clinics</td>
<td>Designed to promote breast cancer screening by encouraging women to schedule a mammography appointment.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=305499">http://rtips.cancer.gov/rtips/programDetails.do?programId=305499</a></td>
</tr>
<tr>
<td>Maximizing Mammography Participation</td>
<td>Designed to increase breast cancer screening by encouraging women to schedule and keep mammography appointments.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=236253">http://rtips.cancer.gov/rtips/programDetails.do?programId=236253</a></td>
</tr>
<tr>
<td>North Carolina Breast Cancer Screening Program</td>
<td>Designed to promote breast cancer screening by encouraging women to schedule and keep mammography appointments.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=566554">http://rtips.cancer.gov/rtips/programDetails.do?programId=566554</a></td>
</tr>
<tr>
<td>Proactive System to Improve Breast Cancer Screening</td>
<td>Designed to increase breast cancer screening by encouraging women to schedule and keep mammography appointments.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=785152">http://rtips.cancer.gov/rtips/programDetails.do?programId=785152</a></td>
</tr>
<tr>
<td>Project S.A.F.E (Screening Adherence Follow-Up Program)</td>
<td>Designed to improve follow-up among low-income, ethnic minority women with abnormal mammograms.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=307723">http://rtips.cancer.gov/rtips/programDetails.do?programId=307723</a></td>
</tr>
<tr>
<td>Reducing Barriers to the Use of Breast Cancer Screening</td>
<td>The physician intervention aims to increase the breast cancer screening practices of community-based physicians.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=127195">http://rtips.cancer.gov/rtips/programDetails.do?programId=127195</a></td>
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### Research-tested Intervention Programs (RTIPs)

<table>
<thead>
<tr>
<th>RTIPs strategy</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Cervical Cancer</strong></td>
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<tr>
<td>The Chinese Women’s Health Project</td>
<td>Designed to decrease the incidence of invasive cervical cancer among Chinese women by increasing the frequency and regularity of Pap testing.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=155735">http://rtips.cancer.gov/rtips/programDetails.do?programId=155735</a></td>
</tr>
<tr>
<td>The Forsyth County Cancer Screening Project (FoCaS)</td>
<td>Designed to improve the beliefs, attitudes, and behaviors regarding breast and cervical screening among low-income, predominately African-American, women age 40 and older.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=141840">http://rtips.cancer.gov/rtips/programDetails.do?programId=141840</a></td>
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<tr>
<td><strong>Colorectal Cancer</strong></td>
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<tr>
<td>Colorectal Cancer Screening in Chinese Americans Project</td>
<td>Designed to help increase colorectal cancer screening among low-income, less-acculturated Chinese Americans.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=297357">http://rtips.cancer.gov/rtips/programDetails.do?programId=297357</a></td>
</tr>
<tr>
<td>Colorectal Cancer Screening Intervention Program (CCSIP)</td>
<td>Designed to increase colorectal cancer screening among African American adults.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=1124686">http://rtips.cancer.gov/rtips/programDetails.do?programId=1124686</a></td>
</tr>
<tr>
<td>Culturally Tailored Navigator Intervention Program for Colorectal Cancer Screening</td>
<td>Designed to increase colorectal cancer screening among low-income adults.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=1493683">http://rtips.cancer.gov/rtips/programDetails.do?programId=1493683</a></td>
</tr>
<tr>
<td>Filipino-American Health Study</td>
<td>Designed to increase colorectal cancer screening among Filipino Americans.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=1515452">http://rtips.cancer.gov/rtips/programDetails.do?programId=1515452</a></td>
</tr>
<tr>
<td>Improving Knowledge, Risk Perception, and Risk Communication Among Colorectal Adenoma Patients</td>
<td>Designed to improve knowledge, risk perception, and risk communication among colorectal adenoma patients.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=1472737">http://rtips.cancer.gov/rtips/programDetails.do?programId=1472737</a></td>
</tr>
<tr>
<td>Physician-Oriented Intervention on Follow-Up in Colorectal Cancer Screening</td>
<td>Designed to increase physician recommendation and performance of complete diagnostic evaluation (CDE) screenings for individuals aged 50 years and older and with an abnormal colorectal cancer screening result.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=260884">http://rtips.cancer.gov/rtips/programDetails.do?programId=260884</a></td>
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<tr>
<td><strong>Prostate Cancer</strong></td>
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<tr>
<td>A Web-based Decision Aid for Prostate Cancer Screening</td>
<td>Designed to enhance knowledge and increase patient participation in the decision making process for prostate cancer screening.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=298693">http://rtips.cancer.gov/rtips/programDetails.do?programId=298693</a></td>
</tr>
<tr>
<td>Prostate Health Awareness Project</td>
<td>Designed to enhance knowledge in the decision making process for prostate cancer screening.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=308757">http://rtips.cancer.gov/rtips/programDetails.do?programId=308757</a></td>
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<tr>
<td>The PSA Test for Prostate Cancer: Is it Right for ME?</td>
<td>Designed to enhance knowledge and increase patient participation in the decision making process for prostate cancer screening.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=226792">http://rtips.cancer.gov/rtips/programDetails.do?programId=226792</a></td>
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<td><strong>Quality of Life</strong></td>
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<td>Coping with Chemotherapy</td>
<td>Designed to enhance the quality of life of individuals prior to undergoing chemotherapy.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=289799">http://rtips.cancer.gov/rtips/programDetails.do?programId=289799</a></td>
</tr>
<tr>
<td>Effects of Psychosocial Treatment on Cancer Survivorship</td>
<td>Designed to help individuals enhance their skills for coping with breast cancer.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=297250">http://rtips.cancer.gov/rtips/programDetails.do?programId=297250</a></td>
</tr>
<tr>
<td>Family-based Interventions (The FOCUS Program) for Men with Prostate Cancer and their Spouses/Partners</td>
<td>Designed to enhance the quality of life of individuals diagnosed with prostate cancer and their caregivers during all phases of the illness.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=102766">http://rtips.cancer.gov/rtips/programDetails.do?programId=102766</a></td>
</tr>
<tr>
<td>Managing Uncertainty Day-to-Day</td>
<td>Designed to help individuals enhance their skills for coping with the uncertainty of the recurrence for cancer.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=286781">http://rtips.cancer.gov/rtips/programDetails.do?programId=286781</a></td>
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<td><strong>Childhood Cancer</strong></td>
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<td>Bright IDEAS: Problem-Solving Skills Training</td>
<td>Designed to help reduce the emotional distress in mothers of children recently diagnosed with cancer.</td>
<td><a href="http://rtips.cancer.gov/rtips/programDetails.do?programId=546012">http://rtips.cancer.gov/rtips/programDetails.do?programId=546012</a></td>
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