New Mexico Cancer Plan

2012-2017

A document to guide collaborative cancer control efforts throughout the state

NEW MEXICO CANCER COUNCIL

Partnerships. Possibilities. Progress.

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EXECUTIVE SUMMARY

Cancer is a serious public health problem in New Mexico. It is the second leading cause of death and a major source of illness and suffering. One out of every five deaths in New Mexico is caused by cancer.

The New Mexico Cancer Plan 2012-2017 is a roadmap to cancer control and prevention in New Mexico. The Cancer Plan describes what cancer looks like in New Mexico, including the most prevalent cancers, health inequities, and cancer care from prevention to detection to treatment to palliative care. It also contains goals and objectives for reducing the burden of cancer and addressing health inequities based on national objectives and data and issues unique to our state.

The Cancer Plan was developed by the New Mexico Cancer Council, a group of volunteer citizens and public and private organizations formed in 2005 to work collaboratively to reduce the economic and human burden of cancer in our state and improve the outcomes and quality of life for New Mexicans living with cancer. Council members include doctors, public health personnel, nonprofit organizations, cancer survivors and their families, government agencies, colleges and universities, and advocates.

Cancer control is the result of proper planning, organizing, and directing by involved individuals and groups. The Cancer Plan is a multi-purpose resource to use in cancer control. Some ways to use the Cancer Plan include: referencing information on cancer in New Mexico; identifying gaps in cancer control and prevention; guiding program development; and developing educational materials and funding proposals. By using the Cancer Plan as a guiding document, those engaged in cancer control efforts will become part of a statewide, unified effort to fight cancer.

The Cancer Plan contains nine goals for cancer control in New Mexico, which were developed by New Mexico Cancer Council members working in taskforces. These nine goals are:

GOAL 1
Improve individual lifestyle behavioral outcomes through culturally and linguistically competent programs and interventions.

GOAL 2
Improve access to culturally and linguistically competent, appropriate and effective cancer prevention, education, screening, diagnosis, treatment, and survivor services.

GOAL 3
Improve the quality of life for New Mexicans living with cancer.

GOAL 4
Ensure equal access to pain management, palliative care, complementary and alternative services with proven evidence based efficacy, and end of life services.

GOAL 5
Increase culturally and linguistically competent and effective education about appropriate screening services for the early detection and/or prevention of cancer.

GOAL 6
Reduce the rates of cancers caused by social, economic, and physical environment factors.

GOAL 7
Reduce disparities and inequities in cancer incidence, morbidity, and mortality.

GOAL 8
Reduce disparities and inequities in access to appropriate and effective cancer prevention, screening, diagnosis, treatment, and survivor services.

GOAL 9
Improve cooperation, coordination, and collaboration among organizations and government agencies engaged in cancer control.

Many sectors of society must work together to alleviate the burden of cancer in New Mexico. No agency or profession can solve the problem alone. Developing key partnerships is essential to achieving successful outcomes. By working together and coordinating efforts, gaps in treatment and services to underserved populations are addressed, and real progress is made in reducing the burden of cancer and health inequities in New Mexico.

INTRODUCTION

Cancer is a serious public health problem in New Mexico. It is the second leading cause of death and a major source of illness and suffering. One out of every five deaths in New Mexico is caused by cancer. The New Mexico Cancer Council is working to make cancer prevention and control a priority in our state. To that end, the Council developed the New Mexico Cancer Plan 2012–2017.

About the Plan

The New Mexico Cancer Plan is a roadmap to cancer control and prevention in New Mexico. It contains goals and objectives for reducing the burden of cancer that are based on New Mexico surveillance data, national objectives and issues unique to New Mexico. These goals and objectives serve as a framework for cancer control through 2017. New Mexico Cancer Council members working in taskforces developed the Plan's goals and objectives.

The Plan also describes what cancer looks like in New Mexico. It contains information on the most prevalent cancers in New Mexico, health disparities, survivorship, evidenced-based practices, and cancer care from prevention to detection to treatment to palliative care. State cancer data in the Plan includes incidence and mortality data from the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) registry and the New Mexico Department of Health's Indicator-Based Information System (IBIS) for Public Health website, http://ibis.health.state.nm.us.

Who Should Use the Plan

Many sectors of society must work together to alleviate the burden of cancer in New Mexico. No agency or profession can solve the problem alone. Federal, state, and tribal governments, local public health agencies, healthcare providers, nonprofit organizations, cancer survivors, researchers, employers, policymakers, schools, and local community groups are potential users of the New Mexico Cancer Plan. In fact, all interested New Mexicans are invited to help implement the Plan. Developing key partnerships is essential to achieving successful outcomes. By working together and coordinating efforts, gaps in treatment and services to underserved populations are addressed and real progress is made in reducing the burden of cancer in New Mexico.

How to Use the Plan

Cancer control in New Mexico requires collaboration and partnership among the many dedicated cancer control and prevention organizations. The aim of cancer control is to reduce the incidence and mortality of cancer and to enhance the lives of those affected by cancer through an integrated approach. Cancer control is the result of proper planning, organizing, and directing by involved individuals and groups. For these people and organizations, the Plan serves as a guide to effectively impact goals for reducing the cancer burden in our state. By using the Plan as a guiding document, those engaged in cancer control efforts will become part of a statewide, unified effort to fight cancer.

The New Mexico Cancer Plan is a multi-purpose resource. Ways to use the Plan include:

- Referencing information on cancer in New Mexico
- Identifying gaps in cancer control and prevention
- Guiding program development
- Identifying partners for cancer control interventions
- Planning and aligning goals and objectives for cancer control interventions
- Developing educational materials
- Creating a cohesive message for your organization
- Determining funding priorities
- Conducting cancer-related policy and advocacy initiatives
- Developing funding proposals

The New Mexico Cancer Plan is a "living" document. The New Mexico Cancer Council reviews and revises the Plan every few years to include new research, best practices, and successful programs. The Cancer Council believes that the information contained in the Plan will help New Mexicans in their fight to reduce the prevalence of cancer; increase cancer survival; and reduce the financial, physical, and psychological burdens of cancer.

Guiding Models and Theories

In developing the NM Cancer Plan, the Council used a framework that melds together the public health and ecological models with social determinants of health and diffusion theories. This section briefly describes these models and theories on which the Plan is built.

The Public Health Model

The public health model focuses on reducing the risk of illness and disease as well as increasing resiliency against public health threats. Assessment, policy development, and assurance are the core functions of the public health model and the cornerstone of this approach to health. In addition, it is crucial that private and voluntary organizations and individuals actively contribute to the functions of public health. Each of the goals and objectives in this Plan is readily identifiable with one of these three core functions of assessment, policy development or assurance. The public health model has three tiers. The objectives and strategies contained within this Plan address all three public health tiers of primary, secondary and tertiary prevention.

The Ecological Model

Healthy behaviors help reduce cancer risk and are influenced by ecological factors such as age, ethnicity, education, socioeconomic status, residence, and social networks (family, peers, colleagues). The ecological perspective provides a basis for examining and understanding health behavior by emphasizing the importance of the context in which individuals operate. This perspective includes the intrapersonal context (an individual's internal dialogue), the interpersonal context (interactions with other individuals), the community context (physical, occupational, and social environments), and the societal context (extended social environment, including norms and laws). These contexts are often beyond personal control, yet they influence behavior (see Figure 1).

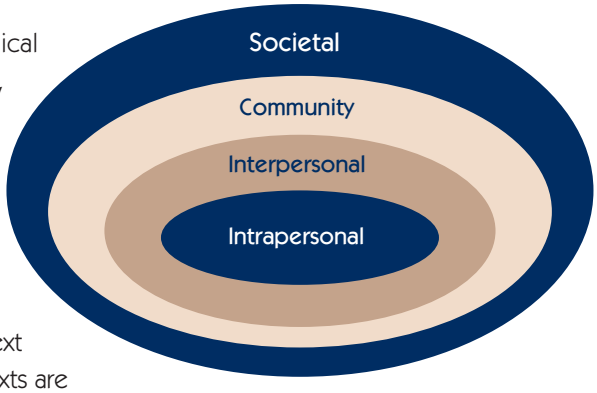

Figure 1 Context Types in the Ecological Approach

The ecological perspective is consistent with efforts to create programs that encourage individual and community empowerment. Using information about each of the contexts, program planners can incorporate various sources of influence on behavior to improve health outcomes. For example, family patterns may influence a woman's exercise and dietary habits, thus program planners might consider providing daycare so that mothers can exercise. Nutrition promotion programs may want to work with the business sector to ensure that healthy foods are available for purchase in the community.

The New Mexico Cancer Council

The New Mexico Cancer Council was convened in 2005 to guide the development and implementation of the New Mexico Cancer Plan. Composed of a diverse group of volunteer citizens and public and private organizations, the New Mexico Cancer Council is dedicated to working collaboratively to reduce the economic and human burden of cancer in our state and improve the outcomes and quality of life for New Mexicans living with cancer. Council members include doctors, nurses, public health personnel, nonprofit organizations, cancer survivors and their families, government agencies, colleges and universities, and advocates. The Centers for Disease Control and Prevention (CDC) provided support to the NM Cancer Council to develop the NM Cancer Plan.

The Council's work is guided by a set of goals (see sidebar). It initiates collaborative projects and initiatives using evidence-based approaches to community and clinical preventive services. The Council selects priority areas that are in alignment with the Plan on which to focus its efforts. Selection criteria are based on potential impact on the cancer burden and level of support Council members are able to provide. Developing and distributing a colorectal cancer white paper and promoting the use of survivorship care plans and treatment summaries to patients and providers are examples of past Council projects in priority areas.

NEW MEXICO CANCER COUNCIL GOALS

GOAL 1
The establishment of broad-based awareness of New Mexicans of the New Mexico Cancer Council, the burden of cancer in New Mexico, and of the NM Cancer Council Strategic Plan for community-oriented, evidence-based, comprehensive cancer control.

GOAL 2
The recruitment, from all communities in New Mexico, of community-based involvement and participation in the efforts of the Council.

GOAL 3
The persuasion of individuals, healthcare professionals, institutions, communities, policy makers, legislators, state government, etc., to accept, adopt, apply, and refine the Plan in all their efforts relating to cancer.

GOAL 4
The demonstration of the concept of community-oriented, evidence-based, comprehensive cancer control in three communities within New Mexico to include a frontier community, a rural community, and an urban community.

GOAL 5
The continuation of public policy advocacy at the community, state, and national levels for community-oriented, evidence-based, comprehensive cancer control.

GOAL 6
The achievement of state and national goals and objectives related to cancer, to community-oriented, evidence-based, comprehensive cancer control, and to other Council values and beliefs.

GOAL 7
The promotion of a collaborative approach to New Mexico's cancer control efforts that promotes positive change with and within the community. It involves an equitable relationship between community organizations and health care professionals, academic institutions, and researchers that is reflected in all levels of project design and dissemination.

The Executive Committee serves as the Council's decision-making body. The Executive Committee is responsible for facilitating the development, implementation and evaluation of the Plan, as well as for appointing workgroups as needed to carry out the Plan's goals and objectives. Current Cancer Council workgroups focus on colorectal cancer, cancer survivorship, barriers and needs in New Mexico's rural areas, Native American populations, policy and advocacy, promoting awareness of cancer treatment and support services across communities and public relations.

The Council operates according to organizational values that influenced the Plan's development. The New Mexico Cancer Council is committed to all people in New Mexico to help prevent, detect, and treat cancer in order to improve the health and quality of life in our state. The Council uses a process that encourages broad participation and is:

- Prevention-oriented
- Comprehensive and collaborative in nature
- Evidence-based
- Inclusive of input from community members and other stakeholders, and professional experiences
- Outcome oriented
- Survivor informed and focused
- Respectful and inclusive of culturally, linguistic, and geographically diverse populations
- Respectful of individual rights and autonomy
- Reflective of justice and health equity

The Council believes in the rights of all people to be fully informed about and have access to medical care and educational and support services and to be treated with compassion, respect, and dignity while receiving the very best care possible.

OVERVIEW: CANCER IN NEW MEXICO

After being on the rise from 1975-1992, cancer incidence in the United States began to decrease, and although rates rose again between 1995-1999, the decrease has continued throughout 2008. The five-year relative survival rate for cancer in the U.S. increased steadily between 1975-2005. New Mexico is consistent with these national patterns around cancer, including leading cancer sites for both new cases and deaths.

Incidence

Incidence rate refers to the number of new cancer cases diagnosed per 100,000 population per year. Rates provide a useful way to compare the cancer burden regardless of the actual population size. Rates can be used to compare different demographic and geographic groups. In New Mexico, the average incidence rate from 2005 to 2009[1] for all cancers was 411.7/100,000. Comparatively, the average cancer incidence rate in the United States from 2005 to 2009 for all cancers was 470.2/100,000.[2] Among men and women in New Mexico, men have a higher cancer incidence rate (472.0/100,000) than women (364.7 /100,000).[3]

Mortality

The cancer mortality or death rate in New Mexico from 2006-2010 was 152.6 per 100,000.[4] Lung cancer resulted in the largest number of cancer deaths (about 729 deaths per year), followed by colorectal cancer (about 317 deaths per year), and breast cancer (about 239 deaths per year).[5] New Mexican men are more likely than women to develop and die from cancer. The cancer mortality rate for men was 182.6 deaths per 100,000 population versus 130.0 per 100,000 population for females.[6] The leading cause of cancer death for men is lung cancer followed by prostate cancer and colorectal cancer. Lung cancer is also the leading cause of cancer death for New Mexican women, followed by breast and colorectal cancers.

1 The most recent data available are for the five-year period from 2005-2009. All data are age-adjusted to the 2000 U.S. Standard Population. New Mexican men are more likely than women to develop and die from cancer. The cancer mortality rate for men was 182.6 deaths per 100,000 population versus 130.0 per

2 Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 9 Regs Research Data, Nov 2011 Sub, Vintage 2009 Pops (1973-2009) , Katrina/Rita Population Adjustment.

3 Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 9 Regs Research Data, Nov 2011 Sub, Vintage 2009 Pops (1973-2009) , Katrina/Rita Population Adjustment.

4 Retrieved Thu, 12 April 2012 13:58:42 from New Mexico Department of Health, Indicator-Based Information System for Public Health website: http://ibis.health.state.nm.us.

5 Retrieved Thu, 12 April 2012 13:58:42 from New Mexico Department of Health, Indicator-Based Information System for Public Health website: http://ibis.health.state.nm.us.

6 Retrieved Thu, 12 April 2012 13:58:42 from New Mexico Department of Health, Indicator-Based Information System for Public Health web site: http://ibis.health.state.nm.us.

Cancer Burden in New Mexico

The term "incidence" refers to the number of newly diagnosed cancer cases in a year. In New Mexico, the average incidence from 2005 to 2009 for all cancers was 8,448.[7] Cancers with the highest incidence among New Mexicans for the years 2005–2009 were: (1) prostate (1,376 cases per year), (2) female breast (1,209 cases per year), (3) lung/bronchus (952 cases per year), and (4) colon/rectum (820 cases per year).[8] These four cancers contribute most to the overall burden of cancer in New Mexico. In the five-year period from 2005 to 2009, these four cancers accounted for just over half of New Mexico's cancer burden or 4,357 of the 8,448 newly diagnosed cases of cancer, and nearly half (1,480) of the 3,212 cancer deaths in New Mexico.[9]

Because cancer is a disease associated with aging, New Mexicans who are older than age 50 are more likely to be diagnosed with cancer than those who are below the age of 50. Over 85 percent of cancer diagnoses from 2005 through 2009 were in New Mexicans over the age of 50, and over half were age 65 and older at diagnosis.[10] The population of New Mexico is aging, and because cancer occurs more often in older persons, the burden of cancer is expected to grow. The increase in the number of people living with cancer will place a growing demand on the healthcare system and on all cancer control efforts in New Mexico.

Race and Ethnicity

When comparing the overall cancer burden among different racial/ethnic groups in New Mexico, non-Hispanic Whites had a higher incidence rate of cancer (453.8 per 100,000) compared to all other racial/ethnic groups in New Mexico from 2005-2009.[11] Hispanic Whites had the second highest cancer incidence rate (365.6 per 100,000).[12] Overall, Non-Hispanic Whites also had the highest cancer mortality rate (158.9 per 100,000) in New Mexico followed by African Americans (151.1 per 100,000), Hispanics (148.3 per 100,000), and Native Americans (113.9 per 100,000).[13]

Racial/ethnic variation was also seen in the diagnoses of specific cancer sites in New Mexico in 2005-2009. For example, whereas lung cancer was the second most commonly diagnosed cancer in African American and White males, it was third in Hispanic males and fourth in American Indian males.[14] Variations in cancer types are also seen across racial/ethnic categories in New Mexico. Non-Hodgkin Lymphoma is more common among African American males, stomach cancer is more common among American Indian males, liver cancer is more common among Hispanic males, and bladder cancer is more common among White males.[15] Differences for specific cancer sites are also seen by race/ethnicity for women in New Mexico. Lung cancer is the second most commonly diagnosed cancer in White and African American females and third in Hispanic females, but it is not in the top five most frequently diagnosed cancers for American Indian females.[16]

Cancer incidence and mortality rates are a key piece of the larger picture of health in New Mexico, yet these rates do not tell the entire story. Certain populations experience a disproportionate burden of cancer mortality relative to incidence. The incidence-mortality (IM) ratio assesses cancer incidence and mortality jointly. This ratio provides a standard population-based indicator of cancer survival across cancer sites and race groups. Higher IM ratios indicate better cancer survival.

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7 Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 9 Regs Research Data, Nov 2011 Sub, Vintage 2009 Pops (1973-2009) , Katrina/Rita Population Adjustment.

8 Ibid.

9 Ibid.

10 Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 9 Regs Research Data, Nov 2011 Sub, Vintage 2009 Pops (1973-2009) , Katrina/Rita Population Adjustment.

11 Ibid.

12 Ibid.

13 Retrieved Thu, 12 April 2012 14:10:39 from New Mexico Department of Health, Indicator-Based Information System for Public Health Web site: http://ibis.health.state.nm.us.

14 Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 13 Regs Research Data, Nov 2011 Sub, Vintage 2009 Pops (1992-2009), Katrina/Rita Population Adjustment.

15 Ibid.

16 Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 13 Regs Research Data, Nov 2011 Sub, Vintage 2009 Pops (1992-2009), Katrina/Rita Population Adjustment.

Computing and comparing IM ratios allows for greater insight into disparities in survival between population groups. For example, in 2005-2009 in New Mexico, White women were diagnosed with breast cancer at a much higher rate than other racial/ethnic groups, and they also had a slightly higher mortality rate than American Indian, Hispanic, and African American women (but the difference was not significant between White and Hispanic or White and African American women). However, the IM ratio for breast cancer is over one-and-a-half times larger for White women (5.6) compared to African American women (3.6), revealing a disparity in cancer survival between the two groups.[17] In another example, the IM ratio for prostate cancer was highest for White men (6.1), intermediate for Hispanic men (5.4), and lowest for American Indian (4.3) and African American (4.2) men.

Many factors influence cancer survival. For example, stage at diagnosis, access to treatment and high quality care, and quality of life all contribute to health disparities. In addition to these aspects of health care, social factors such as ethnicity, geographic location, income or poverty level, education, health insurance, language and health literacy and cultural beliefs also contribute to disparities in health. Health disparities are inequities in the quality of health and healthcare across different populations. These health inequities result in differences in how groups of people experience disease, and the number of people in a group who become ill as well as die from the disease. Cancer care in New Mexico has resulted in disparities in cancer incidence, stage at diagnosis, treatment, survivorship, mortality and quality of life. These issues will be examined more closely in the Health Equities/ Disparities section.

The New Mexico Cancer Plan contains nine goals that address the burden of cancer in two ways: by focusing on improved outcomes in a variety of stages along the continuum of cancer (which encompasses prevention, early detection, treatment, survivorship and end-of life issues) and by focusing on addressing issues of health equity. The relevant goals introduce the two sections; objectives towards meeting the goals appear in the Coordination/Implementation and Evaluation section on page 31.

COMPREHENSIVE CANCER CONTROL

GOALS RELATED TO COMPREHENSIVE CANCER CONTROL

GOAL 1
Improve individual lifestyle behavioral outcomes (increased physical activity, improved dietary intake, tobacco prevention and cessation, decreased alcohol consumption, healthy sexual behavior, and psychological well-being) through culturally and linguistically competent programs and interventions.

GOAL 2
Improve access to culturally and linguistically competent, appropriate and effective cancer prevention, education, screening, diagnosis, treatment, care and survivor services.

GOAL 3
Improve the quality of life for New Mexicans living with cancer throughout the cancer journey.

GOAL 4
Ensure equal access to pain management, palliative care, complementary and alternative services with proven evidence based efficacy, and end of life services.

GOAL 5
Increase culturally and linguistically competent and effective education about appropriate screening services for the early detection and/or prevention of cancer among New Mexicans.

The Centers for Disease Control and Prevention (CDC) defines comprehensive cancer control as the process through which communities and partner organizations pool resources to reduce the burden of cancer. Comprehensive cancer control looks at the entire range of cancer care from prevention and early detection to treatment and survivorship and encourages partnerships among diverse groups to pool resources, share expertise and gain new insights into better ways to address cancer in New Mexico. The NM Cancer Plan addresses the components of comprehensive cancer control.

Continuum of Cancer Control

The "continuum of cancer control" is a term used to describe the points along cancer care, from prevention and early detection to treatment, survivorship and end-of life. The cancer control continuum is a useful framework from which to view plans, progress, and priorities. It helps to identify research gaps, where to collaborate with others to have an impact, and where more resources may be needed.

17 Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 13 Regs Research Data, Nov 2011 Sub, Vintage 2009 Pops (1992-2009) <Katrina/ Rita Population Adjustment> Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Mortality - All COD, Aggregated With State, Total U.S. (1990-2009) <Katrina/ Rita Population Adjustment>, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2012. Underlying mortality data provided by NCHS (www.cdc.gov/nchs).

A. Prevention

Prevention is a key strategy for reducing the cancer burden in New Mexico. Healthy lifestyles, appropriate cancer screenings, and immunizations can reduce the risk of developing some types of cancer. For example, all cancers caused by cigarette smoking, exposure to environmental tobacco smoke, and excessive alcohol use are completely preventable. The American Cancer Society estimates that about 30 percent of the more than 10,010 lives lost to cancer in New Mexico in 2008–2010 were attributable to tobacco use—primarily cigarettes. Being overweight increases the risk of developing certain cancers, while physical activity appears to have a protective effect. Taking protective measures against excessive exposure to ultraviolet radiation can reduce the risk of skin cancer. In addition, screening for cervical and colorectal cancers can identify pre-cancerous changes that can be treated, thus preventing the development of cancer. Furthermore, the U.S. Food and Drug Administration (FDA) has approved a cancer preventive vaccine that protects females against the types of human papillomavirus (HPV) that cause most cervical cancers. Many cancers can be cured, especially if detected early and treated promptly.

Tobacco Use and Secondhand Tobacco Smoke

Tobacco use (commercial) and exposure to secondhand smoke far outweighs all other risk factors in the development of lung cancer. Approximately 90 percent of lung cancer cases in men and 80 percent of cases in women are attributable to cigarette smoking, both active and passive. Tobacco contains about 7,000 chemicals; hundreds are toxic, and 70 cause cancer.[18] The risk of developing lung cancer is proportional to the number of cigarettes smoked daily and the number of years one has smoked. Male smokers are about 23 times more likely to develop lung cancer than non-smokers; the risk is about 13 times higher among women who smoke.[19] In New Mexico, almost one in five adults smoke, with rates approaching 30 percent for some population groups. The smoking rate for New Mexico high school youth is 24 percent, which is much higher than the national rate of 19.5 percent.[20]

Almost 85 percent of smoke in a room is secondhand smoke.[21] Secondhand smoke contains higher concentrations of many potentially toxic gases than exhaled smoke, because it is emitted directly from the cigarette and not filtered. A report issued by the U.S. Surgeon General in June 2006 showed that there is no safe level of exposure to secondhand smoke, and that exposure to secondhand smoke can damage cells and lead to mutations that cause cancer and increases the risk of developing lung cancer by 20 to 30 percent.[22] Secondhand smoke may increase the risk for developing nasal sinus cancers. Smokeless tobacco products like chewing tobacco and snuff also add to an increased risk for cancer of the oral cavity, pharynx, larynx, and esophagus. About 4.2 percent of adults in New Mexico use smokeless tobacco products such as spit tobacco or snuff.[23]

Nearly 70 percent of current adult smokers are more likely to quit if encouraged by their health care provider. Cessation of cigarette smoking results in a gradual decrease in lung cancer risk. Ten to 20 years after cessation, lung cancer rates for former smokers approach the rates of those who have never smoked.

18 U.S. Department of Health and Human Services. A Report of the Surgeon General: How Tobacco Smoke Causes Disease: What It Means to You. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2010

19 U.S. Department of Health and Human Services. The Health Consequences of Smoking: A Report of the Surgeon General. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004

20 http://www.nmtupac.com/ajaxProcessor.php?man=File&fn=downloadResource&name=+2009+HS+YRRS+Tobacco+Highlights

21 U.S. Department of Health and Human Services. A Report of the Surgeon General: How Tobacco Smoke Causes Disease: What It Means to You. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2010.

22 The health consequences of involuntary exposure to tobacco smoke : a report of the Surgeon General. Atlanta, GA: U.S. Dept. of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.

23 http://ibis.health.state.nm.us/indicator/view/TobaccoSmokelessAdult.Year.NM_US.html

Healthy Weight

Obesity contributes to almost one-third of all cancer cases. Research has shown that being overweight or obese substantially raises a person's risk of getting endometrial (uterine), breast, prostate, and colorectal cancers. Overweight is defined as a body mass index (BMI) of 25 to 29, and obesity is defined as a BMI of 30 or higher.[24]

The formula to calculate BMI is:

BMI = Weight (lb) / [Height (in) x Height (in)] x 703

Calculate BMI by dividing weight in pounds (lbs) by height in inches (in) squared and multiplying by a conversion factor of 703.

Example 1:

Someone who is 5'6" (5'6" = 66") and weighs 160 lbs.

BMI Calculation: 160 lbs. / (66 x 66) x 703 = BMI 25.8. This person is in the Overweight category.

BMI Categories:

- Underweight = <18.5
- Normal weight = 18.5 – 24.9
- Overweight = 25 – 29.9
- Obesity = BMI > 30

More information about BMI and a BMI calculator, are available on the CDC Web site: www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/english_bmi_calculator/bmi_calculator.html

Calculate Your Body Mass Index

Body mass index (BMI) is a measure of body fat based on height and weight that applies to adult men and women.

In New Mexico, one in four adults is considered obese. At least 24 percent of New Mexico high-school students are overweight or obese.[25] Results from the first New Mexico statewide elementary school BMI surveillance suggest that childhood obesity is an epidemic and it occurs at an earlier age than anticipated.[26] Racial and ethnic disparities in the prevalence of obesity appear at a very young age. This problem is affecting American Indian children in New Mexico far more severely. The prevalence of obesity among American Indian kindergarten children is almost three times (25.5 percent) that of White non-Hispanic children (8.8 percent) and almost twice that of Hispanic children (12.9 percent).[27] Obesity only exacerbates the large health disparities already faced by American Indians.

Behavior, environment and poverty play significant roles in causing people to be overweight and obese. Learning how to choose a healthy diet with plenty of fresh vegetables and fruit and establishing an exercise routine are helpful in keeping a healthy weight. Addressing these areas for both adults and children will provide the greatest opportunities for prevention

Physical Activity

Evidence shows that moderate physical activity, such as walking, is connected with a lower risk of colon and breast cancers. Several studies also report links between physical activity and a reduced risk of cancers of the prostate, lung and uterus (endometrial cancer). In 2009, only slightly more than half of New Mexican adults reported getting recommended amounts of physical activity. The Centers for Disease Control and Prevention (CDC) recommend that adults participate in moderate-intensity physical activity for at least 30 minutes on five or more days of the week, or engage in vigorous-intensity physical activity for at least 20 minutes on three or more days of the week.

Sun Safety

Skin cancer is the most common form of cancer in New Mexico and the United States. Ultraviolet radiation (UVR) exposure from the sun, sunlamps and tanning beds is the major known factor associated with each major type of skin cancer: basal cell carcinoma (BCC), squamous cell carcinoma (SCC), and melanoma. Different patterns of sun exposure appear to lead to different types of skin cancer among susceptible individuals. An intermittent pattern of sun exposure over many years (including early in life and later in life) appears to significantly increase melanoma risk.

24 National Institutes of Health, National Heart, Lung, and Blood Institute Obesity Education Initiative. Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.

25 NM Youth Risk and Resiliency Survey, 2007. New Mexico Department of Health.

26 NM BMI Surveillance Report 2010. New Mexico Department of Health, Healthy Kids New Mexico.

27 Ibid

New Mexico's desert climate and high elevation contribute to increased levels of sun exposure, resulting in higher overall skin cancer incidence rates. Protection from ultraviolet radiation is important all year round, not just during the summer. UVR rays from the sun can reach people on cloudy and hazy days, as well as bright and sunny days. UVR rays also reflect off of surfaces like water, cement, sand, and snow. The CDC recommends these ways to protect from UV radiation:

- Seek shade, especially during midday hours (10:00 am to 4:00 pm).
- Wear clothing to protect exposed skin.
- Wear a hat with a wide brim to shade the face, head, ears, and neck.
- Wear sunglasses that wrap around and block as close to 100% of both ultraviolet B (UVB) and ultraviolet A (UVA) light rays as possible.
- Use sunscreen with sun protective factor (SPF) 15 or higher, and both UVA and UVB protection.
- Avoid indoor tanning.

B. Screening and Early Detection

Early detection of cancer in people without symptoms is accomplished through screening. Screening tests can help find cancer at an early stage, before symptoms appear. For many types of cancer, it may be easier to treat or even cure the cancer when found early. By the time symptoms appear, the cancer may have grown and spread, which can make the cancer harder to treat and/or cure. Examples of effective screening tests include Papanicolaou (Pap) smears for cervical cancer, routine mammography for breast cancer, and colorectal cancer screening tests including take-home fecal blood testing kits.

Professional guidelines for screening are based on studies that demonstrate a screening test's success in producing the intended result. An effective screening test or procedure must be able to detect cancers earlier than if the cancer were detected as a result of the development of symptoms, and there must be evidence that treatment started earlier as a result of screening will lead to an improved outcome. These two requirements are necessary but not sufficient to prove the efficacy of screening, which requires a decrease in cause-specific mortality.[28] Not all screening tests are helpful and many have risks. Because of this, it is important to know the risks of the test and whether it has been proven to decrease the chance of dying from cancer. Some cancers never cause symptoms or become life threatening, but if found by a screening test, the cancer may be treated. There is no way to know if treating the cancer would help the person live longer than if no treatment were given. For some cancers, finding and treating the cancer early does not improve the chance of a cure or help the person live longer.[29]

Cervical cancer is one of the most amenable to prevention and early detection through screening. The Pap test may find early cell changes in the cervix that can be effectively treated to prevent the development of cervical cancer. In 2012, the USPSTF issued new recommendations for cervical cancer screening. The current recommendation for women ages 21 to 65 years, with a cervix and who are at average risk, is to screen for cervical cancer with cytology (Pap smear) every 3 years or, for women ages 30 to 65 years who want to lengthen the screening interval, screening with a combination of cytology and human papillomavirus (HPV) testing every 5 years. Screening is particularly important in women who have never or rarely been screened. An estimated 85.8% of New Mexican women ages 21 through 65 (who reported that they have not had a hysterectomy) reported having had a Pap test in the past three years.[30] In June 2006, the U.S. Food and Drug Administration approved a human papillomavirus vaccine that offers a promising method of primary prevention for cervical cancer. The HPV vaccine can provide protection against two HPV types (HPV 16 and 18) that cause about 70% of cervical cancers. The CDC recommends that HPV vaccines should be administered to young women before they become sexually active.

For breast cancer screening, a mammogram, which is a breast X-ray, is considered the best method to detect breast cancer early, when it is easier to treat and before it is big enough to feel or cause symptoms. Having regular mammograms can lower the risk of dying from breast cancer. The CDC recommends women ages 50 to 74 years to have a screening mammogram every two years. Women younger than 50 years of age should base their decision on when to begin mammography on their specific context and values around the benefits and harms of screening. There is no evidence of additional benefit of clinical breast examination beyond mammography in women 40 years and older. Evidence is lacking for benefits of digital mammography and MRI as substitutes for film mammography.

28 National Cancer Institute, Cancer Screening Overview (PDQ®) for health professionals; www.cancer.gov/cancertopics/pdq/screening/overview/HealthProfessional; accessed May 8, 2012.

29 National Cancer Institute, Cancer Screening Overview (PDQ®) for patients; www.cancer.gov/cancertopics/pdq/screening/overview/patient; accessed May 8, 2012.

30 Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System, 2008, 2010; New Mexico Department of Health, Public Health Division, Chronic Disease Prevention and Control Bureau, 2012.

In New Mexico, approximately 71 percent of New Mexican women ages 40 years and older reported having had a mammogram in the past two years. Only 10.7 percent reported never having had a mammogram.[31] Differences in screening rates in New Mexico were seen based on several demographic factors such as race/ethnicity, geographic region, and whether or not a woman had healthcare insurance. Colorectal cancer screening can prevent colorectal cancer by detecting abnormalities to treat before they develop into cancer. Colorectal cancer develops in the colon or rectum and almost always arises from polyps (abnormal growths).

Screening tests find polyps to remove before they become cancerous. Screening tests can also find colorectal cancer early, when it is a highly treatable and often curable disease. Colorectal cancer does not always cause symptoms, especially in the early stages when it is most treatable, making screening especially important.

Screening for colorectal cancer is done using a variety of different methods. Current guidelines support these tests: annual high-sensitivity fecal test; colonoscopy every ten years; or flexible sigmoidoscopy every five years, with high-sensitivity fecal occult blood test intermittently (every 3 years). Guidelines specify screening to begin at age 50 for individuals at average risk for the disease, and earlier for those at increased risk; guidelines recommend stopping average risk screening at age 75. Some colorectal screening procedures, such a sigmoidoscopy or colonoscopy, can tear the lining of the colon and cause bleeding or other problems. In New Mexico screening for CRC is not occurring often enough. Aggregated data from 2008 and 2010 show that approximately one-third of the population ages 50 to 75 years reported never having had a colorectal cancer-screening test, and less than 60 percent of the adult population is current with colorectal cancer screening recommendations.[32]

C. Treatment

Cancer treatment depends on cancer type, stage and overall health of the cancer patient.
Physicians also consider whether or not the goal is to cure the cancer, keep the cancer from spreading or relieve symptoms. Kinds of cancer treatments include chemotherapy, surgery, radiation, biotherapeutics (using DNA technology), endocrine manipulation (changing the body's hormonal balance), and antiangiogensis (prevention of new blood vessel growth). Physicians often use several kinds of treatment together. Cancer treatment facilities that offer surgery, chemotherapy, radiation therapy, and palliative care are located in New Mexico's larger population areas.

Access to care

Access to care involves more than just getting in the door for healthcare services. For cancer care, it means the need for all New Mexicans to have access to quality treatment and follow-up care that is culturally and individually appropriate and available when needed. Barriers to cancer care can be geographic, financial, individual or systemic. In New Mexico, lack of health insurance; long distances to a healthcare facility; lack of transportation; lack of childcare; and language and literacy difficulties impede access to care, especially for the working poor, American Indians, immigrant workers and their families, and residents of rural communities. Even for New Mexicans who face minimal barriers to care, finding the best cancer care and then navigating through the complex healthcare system can be difficult and usually involves a number of health professionals.

Patient Navigation

Patient navigation provides individual assistance to patients, survivors and families. Patient navigators are health professionals, survivors, or family members who consult with patients, families, physicians, and cancer treatment facilities to ensure patients receive what they need. Patient navigators help patients understand the health care system, assist them in making appointments for referrals, follow-up to make sure the appointments are kept, and if needed, accompany the patient to appointments to make sure they understand their diagnosis and instructions from providers. The navigator also refers patients to public health insurance programs for which they might be eligible, and assists patients with any health insurance paperwork they may have. In short, patient navigators help remove barriers to care.

31 Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Center for Disease Control and Prevention, with New Mexico Department of Health 2008 and 2010. New Mexico Department of Health, Public Health Division, Chronic Disease Prevention and Control Bureau, 2012.

32 Ibid.

The Patient Navigator, Outreach, and Chronic Disease Prevention Act of 2005 called for increased access to prevention screening and treatment in minority and underserved communities in efforts to help close the disparity in health outcomes experienced by these populations. This goal would be achieved through providing more healthcare advocates to help underserved populations navigate the health care system. In addition, the bill called for outreach conducted in a language understood by patients and a culturally competent healthcare provider so patients feel comfortable going to see the doctor.

In a move that underscores the importance of patient navigation in cancer care, the Commission on Cancer revised their accreditation requirements as of January 2012 to include patient navigation in new patient-centered/continuum of care standards. These new standards were created to support quality of life alongside disease-directed treatment across the entire continuum of care, increase quality of cancer care delivered, improve patient and family satisfaction with care, as well as create efficiencies in care through improved communication and coordination that reduce care costs. In particular, the purpose of including patient navigation is to address healthcare disparities and barriers to care for patients.

Palliative care

Palliative care focuses on providing patients with relief from the cancer symptoms, pain, and the stress of having a serious illness—whatever the diagnosis. Palliative care is appropriate at any age and at any stage of cancer and can be provided along with curative treatment. Palliative care relieves the symptoms such as pain, shortness of breath, fatigue, constipation, nausea, loss of appetite, difficulty sleeping, persistent edema and more, depending upon the cancer site and type of treatment. It improves the ability to tolerate medical treatments. Overall, it helps patients gain the strength to carry on with daily life. The goal of palliative care is to relieve suffering and provide the best possible quality of life for both the patient and their family. As a patient's cancer progresses, palliative care usually transitions into end of life care.

End of life

Many people do not like to talk about death and dying. The process is very personal, complex and sometimes painful, and many ethical, legal and spiritual issues are involved. Hospice is the model for quality, compassionate care for people facing a life limiting illness or injury. Hospice care is usually considered when an individual has six or fewer months to live. All hospice care is palliative care. Pain control is at the center of hospice care; along with the belief that every person has the right to die with dignity and that their families require specialized support during this time. Hospice focuses on caring, not curing, and, in most cases, care is provided in the individual's home. Hospice care also is provided in freestanding hospice centers, hospitals, and nursing homes and other long-term care facilities. Hospice care is covered under Medicare, Medicaid, most private insurance plans, HMOs, and other managed care organizations.

D. Survivorship

Cancer is a chronic disease that people can and do survive. Recent estimates show that over 12 million people are living with a history of cancer in the United States, reflecting nearly a four-fold increase from the early 1970s.[33] In New Mexico, approximately 114,000 adults are currently living with cancer or a have a history of cancer (excluding non-melanoma skin cancer).[34] For individuals recently diagnosed with cancer, 6 of 10 will live five years or longer overall. Survival varies substantially for different types of cancers. For prostate, female breast, and colon cancers, survival has improved.

The term "cancer survivor" refers to anyone who has been diagnosed with cancer, from the time of diagnosis through the rest of his or her life. Family members, friends, and caregivers are also part of the survivorship experience.[35] Cancer is not always a disabling or fatal disease, but it can have long-term effects on an individual's life.

33 Centers for Disease Control and Prevention (CDC). Cancer survivors—United States, 2007. MMWR 2011;60(9):269–272.

34 New Mexico Population Estimates, UNM Bureau of Business and Economic Research (BBER). Retrieved on May 9, 2012 from New Mexico Department of Health, Indicator-Based Information System for Public Health website: http://ibis.health.state.nm.us/. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Center for Disease Control and Prevention, with New Mexico Department of Health, 2010. New Mexico Department of Health, Public Health Division, Chronic Disease Prevention and Control Bureau, 2012.

35 Life after treatment. National Cancer Institute. NIH Publication No. 10-2424. July 2010.

With more and more cancer survivors, consideration must be given to their follow-up and long-term care that promotes the highest possible quality of life. Some of the issues long-term survivor face are:

- Psychological and emotional well being, including depression management.
- Side effects of treatment.
- Physical fitness and nutrition.
- Financial issues for individuals with and without health insurance.
- Long-term health implications, including cognitive changes, falls and fractures.
- Discrimination, such as denial of health benefits and life insurance, as well as discrimination in employment.

Treatment Summaries and Survivorship Care Plans

Many survivors transition from a medical care system where they receive intensive help and communicate often with their healthcare team to daily life with little guidance for managing the medical or quality of life issues that arise. It is important for survivors to receive social support and education following treatment to maintain their quality of life.

Because cancer treatments are not without consequence, survivors must deal with the long-term effects of treatments, with limited assistance. To help with this, the Institute of Medicine recommends standards of care, so that upon discharge from cancer treatment, cancer survivors and their primary care providers should be provided with a summary of their cancer diagnosis and treatments received, and a follow-up care plan once cancer therapy is completed.

A **treatment summary** details the cancer treatments a patient has received. The summary lists the diagnosis, stage and any relevant information from pathology reports. It also incorporates all treatments including surgery, chemotherapy, radiation therapy and any other medical therapies. The treatment summary gives cancer survivors and their health care providers a starting point with which to deal with cancer after-effects, recurrences or simply to rebuild health. Many long-term survivors have found this information difficult, if not impossible, to track down, since medical records are sometimes destroyed or put into storage.

A **survivorship care plan** summarizes the following: potential late effects, their symptoms and treatment, including pain management; recommendations for cancer screening (recurrence or new primary); psychosocial effects (including relationships and sexuality/fertility); financial issues (work, insurance and employment); recommendations for a healthy lifestyle, genetic counseling (if appropriate); effective prevention options; referrals for follow-up care and a list of support resources.

Education and Resources for Support

Providing social support and information to cancer survivors at all stages of their illness and recovery is crucial to enhancing their quality of life. Programs that empower survivors enable them to increase control over and improve their health. Survivors are empowered when they have the knowledge, skills, attitudes, and self-awareness necessary to influence their own behavior following treatment. Chronic disease self-management uses approaches to prevent or reduce risks of secondary cancers and recurrence of cancer; improve healthy behaviors around diet, nutrition and physical activity; manage the physical, social, emotional and psychological late-effects of cancer, including pain management; and access available resources around family, peer, and community support to cope with the disease. In addition, caregivers and family members of cancer patients and survivors are also impacted by many of the same issues and may benefit from resources and programs to help them protect their own health and well-being and to regain or maintain a sense of balance in their lives.

E. Research

Significant advances in research have saved lives, decreased cancer rates, and improved the quality of life for cancer survivors. Some research evaluates whether secondary prevention through screening can avert cancer by identifying and treating pre-cancerous growths. In recent years, research has given rise to newer cancer treatments. For example, targeted therapies have changed the way cancer is treated by interfering with specific molecules involved in tumor growth and progression. Immunotherapy agents target proteins on the surface of cancerous cells that initiate the body's immune response to help fight cancer. Gene therapies are being explored to replace damaged genes, which may have mutations that develop into cancer. Many other cancer treatments are being researched through clinical trials, which include studies of new drugs, new approaches to surgery or radiation therapy, or new combinations of treatments.

Clinical Trials

Clinical trials are research studies that involve people. Each study tries to answer scientific questions and find better ways to prevent, diagnose or treat cancer. In cancer research, a clinical trial is designed to show how a particular anticancer strategy—for example, a promising drug, a gene therapy treatment, a new diagnostic test, or a possible way to prevent cancer—affects the people who receive it. Additionally, clinical prevention trials test whether primary prevention efforts such as behavioral changes, medications, vitamins, or supplements lower the risk of developing a certain type of cancer. Because of progress made through clinical trials, many people treated for cancer are now living longer.

Each clinical trial has its own set of guidelines for those who can participate. Generally, participants are similar in key ways—the type and stage of cancer, age, gender, and other factors. Patients must weigh the pros and cons before deciding to take part in clinical trials. Possible benefits are high-quality cancer care and having the chance to help others and improve cancer treatment. Possible drawbacks are adverse side effects unexpected by doctors.

Federal rules help ensure that clinical trials are run in an ethical manner. All potential participants go through an informed consent process. In this process potential participants learn the purpose, risks, alternative treatments and benefits of a clinical trial before deciding whether to join. It is a critical part of ensuring patient safety in research.

For children under 18 to participate in a clinical trial, legal permission must be given by parents or guardians after going through the informed consent process on their behalf. Health care providers want young people to know that they have a say in what happens to them and that their questions and input are valued. Encouraging their involvement in decision-making is done out of respect for their rights as individuals and the desire to give them a sense of ownership in what happens during the trial.

F. Policy, Health Systems and Environment

Policy, systems and environmental approaches to address chronic diseases like cancer can have a significant impact because they affect large numbers of people. Policy and environmental changes to promote healthy places and lifestyles help reduce cancer risk. Examples of broad scale approaches to reducing the burden of cancer include insurance coverage for cancer screening and treatment, tobacco excise taxes, clean indoor air ordinances, regulation of indoor tanning devices, policies to improve nutrition and increase physical activity, and implementation of patient navigation systems.

HEALTH EQUITY/DISPARITIES

GOALS RELATED TO HEALTH EQUITY/DISPARITIES

GOAL 6
Reduce the rates of cancers caused by social, economic, and physical environment factors.

GOAL 7
Reduce disparities and inequities in cancer incidence, morbidity, and mortality in New Mexico.

GOAL 8
Reduce disparities and inequities in access to appropriate and effective cancer prevention, screening, diagnosis, treatment, care and survivor services.

GOAL 9
Improve cooperation, coordination, and collaboration among organizations and federal, state, tribal, county and local governments engaged in community-oriented cancer control.

Health is a fundamental right of every human being, regardless of age, race, ethnicity, sex, socio-economic status, or sexual orientation (World Health Organization, 1978). Yet the opportunity to access the necessary elements of what leads to good health are not available to everyone. Social determinants, which are complex, integrated, and overlapping social structures and economic systems, are linked to lack of opportunity and a lack of resources to protect, improve, and maintain health.[36]

The World Health Organization defines the social determinants of health as "the conditions in which people are born, grow, live, work and age, including the health system."[37] The social determinants of health involve people's social environment (discrimination, income, education level), physical environment (place of residence, crowding conditions, buildings, spaces, transportation systems, and products that are created or modified by people), and health services (access to and quality of care and insurance). Structural and societal factors such as social and physical environments, and availability, cost of, and access to health services, create pathways or barriers to good health. These factors are not controlled by the individual but affected by the distribution of money, power and resources at the national and local levels, all of which can be influenced through policy choices.[38]

The social determinants of health are mostly responsible for health inequities —the unfair and avoidable differences in the quality of health and healthcare across different populations.[39] These health inequities result in differences of how groups of people experience disease and the number of people in a group who become ill as well as die from the disease. In cancer care in New Mexico, health inequities, or disparities, are seen in cancer incidence, stage of diagnosis, treatment, survivorship, mortality and quality of life. Next is a closer look at some of the factors that make up the social determinants of cancer-related health disparities in New Mexico.

Race/Ethnicity

Epidemiologic research has found factors associated with race/ethnicity that affect health status and risk but are independent of biological differences among groups. Familiarity with the ethnic composition of New Mexico leads to an understanding of the distinct challenges particular groups of New Mexicans face around health disparities.

The demographic makeup of New Mexico is different from most other states. In 2010 New Mexico's population was 2,059,179, an increase of 13.2 percent over 10 years (U.S. Census Bureau, 2011). About 46.3 percent of the population is Hispanic/Latino—the largest ethnic/racial group in the state. Non-Hispanic Whites made up 40.5 percent, with American Indian/Alaskan Natives at 9.4 percent; Blacks at 2.1 percent; and Asians at 1.5 percent (U.S. Census Bureau, 2011). The Hispanic, Black, and American Indian populations tend to be younger, with about half under the age of 25. New Mexico's non-Hispanic White population is older, with close to 70 percent over the age of 25.

The Hispanic/Latino population in New Mexico is not homogeneous. Many Hispanics trace their lineage to Spanish colonizers in the 17th century. Other more recent immigrants are from Mexico and Central America. Large numbers of Mexican

36 World Health Organization. Towards a conceptual framework for analysis and action on social determinants of health. Discussion paper for theommission on Social Determinants of Health. May 5, 2005. Available at: http://www.acphd.org/healthequity/healthequity/documents/WHOConceptualFrame-1.pdf.

37 CSDH (2008). Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health, Geneva, World Health Organization. Available at: http://www.who.int/social_determinants/thecommission/finalreport/en/index.html.

38 Ibid.

39 Ibid

immigrants or descendents of immigrants live in colonias—unincorporated rural communities that lack a potable water supply, adequate sewage systems, and decent, safe and sanitary housing. Colonias are characterized by high rates of poverty. The number of people living in colonias is growing faster than the state's overall population growth. Between 1990 and 2005, New Mexico's total population grew by 27 percent while the colonia population grew by 51 percent.[40]

New Mexico also has a diverse American Indian population, with 19 Pueblos (Acoma, Cochiti, Isleta, Jemez, Laguna, Nambe, Picuris, Pojoaque, San Felipe, San Ildefonso, Ohkay Owingeh (formerly San Juan), Sandia, Santa Ana, Santa Clara, Santo Domingo, Taos, Tesuque, Zia, and Zuni), two Apache Tribes (Jicarilla and Mescalero), and about one-third of the Navajo Nation population living on the main reservation in the northwest area of the state and on three smaller Navajo reservations: Alamo, To'hajiilee (formerly Cañoncito), and Ramah. Each Pueblo and Tribe is legally recognized as a sovereign nation with its own political structure and inherent powers of self-government. The Pueblos and Tribes relate to the federal and state governments on a government-to-government basis. Most reservations and pueblos are located in rural areas of the state.

Geography

Although it is the fifth largest state in landmass, New Mexico has one of the lowest population densities in the United States—about 17 persons per square mile (U.S. Census Bureau, 2011). In 2010 nine New Mexico cities had a population of more than 30,000, with almost one-third of the state's population living in the Albuquerque metropolitan area. The state's largest cities are Albuquerque (pop. 545,852), Las Cruces (pop. 97,618), Rio Rancho (pop 87,521) and Santa Fe (pop. 67,947) (U.S. Census Bureau, 2011). With two-thirds of the population living in rural areas, New Mexico is largely considered a rural state.

Population demographics vary throughout New Mexico, as revealed by the demographic make-up of the state's 33 counties. Bernalillo County is the most populated county in New Mexico, with more than 589,000 people. Counties in the north central mountain region have higher percentages of Hispanics, while counties in the southeast plains region have higher percentages of non-Hispanic Whites. Five counties located in the northwest region have higher percentages of American Indians. Harding County is least populated with 815 people. The border regions (counties within 100 kilometers of the Mexico border), including Grant, Sierra, Hidalgo, Luna, Doña Ana, and Otero counties, have a large Mexican immigrant population. The border region is also home to the bulk of New Mexico's colonias.

Geographic factors can inhibit access to cancer care and treatment. People living in rural areas can experience difficulty accessing health care due to lack of health care providers and treatment facilities, transportation barriers, and financial and unemployment issues. In New Mexico, half of the state's physicians practice in one county—Bernalillo—underscoring the severe shortage of physicians in the state's remaining counties.[41] Rural location makes it very difficult for patients to get transportation to and from appointments. The cost of travel is prohibitive, even with programs like the gas card program. For rural residents who work, traveling long distances for cancer care means having to take time off work, and for many of these people this means having to take unpaid leave. In addition, people with cancer are also caregivers for elderly family members or children, or grandchildren, and having to travel to and from cancer care while also securing care for their charges is overwhelming at best. Side effects of cancer treatment, severe nausea, for example, are made more difficult when the only transportation option is a long bus ride.

Urban area residents also experience health inequities. Groups impacted by disparities tend to reside in neighborhoods in close proximity to industrial centers, major highways and high-crime areas. Other issues include limited access to healthy foods or safe places for physical activity. Poorer areas have fewer community recreation centers and even fewer sidewalks, a must for safe neighborhood activity. In addition, a person's physical environment, such as living in substandard housing, unsafe neighborhoods or areas with more environmental toxins can contribute to health inequities.

40 See Adrian X. Esparza & Angela J. Donelson, Colonias in Arizona and New Mexico: Border Poverty and Community Development Solutions (2008).
41 Physician Supply and Distribution in New Mexico, 2006. Center for Health Workforce Studies at the School of Public Health, University at Albany, State University of New York, December 2007.

Education

A poor education has an adverse impact on a person's life. Education influences job attainment, income potential, and work site benefits, including health insurance. In addition, a person's ability to read, understand and act on medical information and instructions is hampered at lower educational levels.

In New Mexico, schools in rural communities and in disadvantaged urban areas tend to underperform compared to their counterparts in more prosperous locations. Some students in rural areas must travel long distances—over 100 miles—daily to attend class. Also, differences in educational achievement are significant among racial and ethnic groups in New Mexico. American Indian and Hispanic students score significantly lower than non-Hispanic white children on standardized tests. Similar gaps are seen in high school graduation rates and post high school education attainment.

Income, Employment and Poverty

Economic disparities limit people's ability to be healthy. For example, people may lack money to buy medicine or pay for transportation to a medical clinic, or they may experience emotional strain from dealing with financial insecurity. Alternatively, a strong income can protect individuals and families from life's emergencies, hardships and economic cycles. As income increases, the percentage of people reporting fair or poor health decreases.

New Mexico ranks as one of the poorest states in the nation. In 2010, the per capita income in New Mexico was $22,150.[42] New Mexico has the second highest poverty rate in the nation at 19.8 percent[43], and one of the highest child poverty rates in the nation at 27%.[44] From 2007-2009, 29.1 percent of American Indians, 22.8 percent of African Americans, 22.4 percent of Hispanics, and 10.6 percent of Whites were at or below the poverty level.

With unemployment comes loss of income and health insurance and great mental stress. These factors can affect health, and delay or prevent the detection of cancer at an early stage, when it may be most treatable. Although New Mexico has a lower unemployment rate (6.6 percent in Dec. 2011) than the national average (8.6 percent), jobs in the state tend to be for low wages and many lack benefits. Some people need to work more than one job for supplementary income.

Health Insurance

About 21.3 percent of New Mexicans have no health insurance, one of the highest rates in the United States (U.S. Census Bureau, 2011). Of the 21.3 percent of New Mexicans without health insurance, 75 percent are employed either full time or part time.[45] National studies show that the uninsured receive only 60 percent of the level of care of those who have insurance, placing them at greater risk of poor health than those with health insurance. Too often, New Mexicans on a fixed income have to choose between healthcare and basic necessities of life because of the cost of healthcare.[46] The current system of fragmented coverage results in a largely inequitable system. The immigrant population, both documented and undocumented, is less likely to receive employer or publicly provided health care.

Many New Mexicans with insurance are underinsured, which refers to having insurance that does not adequately cover health care costs or has limited benefits. Underinsurance affects access when policies do not cover pre-existing conditions, when co-payments and deductibles cause delays in care because people cannot afford doctor appointments or prescribed care, or when certain categories of benefits, such as cancer prevention and early detection services, are not covered.

42 U.S. Census Bureau, 2010 American Community Survey.

43 USDA Economic Research Service. http://www.ers.usda.gov/StateFacts/NM.htm. Retrieved February 28, 2012. Source: American Community Survey, 2008-2010, Table S1701 (total population in poverty); Table S1701

44 New Mexico Voices for Children. 2011 Kids Count in New Mexico Report.

45 Kaiser Family Foundation. State Health Facts. http://www.statehealthfacts.org/profileind.jsp?ind=135&cat=3&rgn=33. Retrieved February 28, 2012.

46 Health Action New Mexico. http://www.healthactionnm.org/hcfa/. Retrieved February 28, 2012

Access to Healthy Food

Having a healthy weight is a key prevention strategy for reducing the risk of certain cancers. In addition to physical activity, balanced nutrition is important for maintaining a healthy weight. Yet access to healthy food, especially in rural locations is a challenge experienced by New Mexican residents. A "food gap" refers to extraordinary difficulties that households face securing an adequate diet due to economic or geographic reasons.[47] While poverty, hunger, and food inaccessibility are prevalent in the entire state, in rural New Mexican communities these problems are exacerbated by geographic isolation, low population densities, high food prices, limited selection of healthy food, and few transportation options.

The US Department of Agriculture's Economic Research Service identified a massive chunk of New Mexico as a "food desert".[48] A food desert is defined as low-income communities without ready access to healthy and affordable food.[49] With few grocery stores where fresh fruits and vegetables are available at a reasonable price, many families depend on convenience shops that primarily sell processed food high in carbohydrates and salt and low in nutritional value. To access healthy food, rural residents must travel long distances. For example, some residents on the Navajo reservation often travel 30 to 70 miles to go grocery shopping.[50] In Santo Domingo Pueblo, residents must travel 60 to 90 miles round trip to access healthy and affordable food. In a survey administered to Santo Domingo Pueblo community members by Johns Hopkins Center for American Indian Health in the summer 2010, 96 percent of respondents indicated there was a need for some kind of mobile grocery market that sold fresh food.[51]

Cultural Beliefs

Different cultural beliefs about health and illness can impact cancer control outcomes. Fear, embarrassment, anxiety about loss of privacy, and a mistrust of physicians (especially when the physician is of a different race/ethnicity or sex) may inhibit individuals from seeking cancer screening and from adhering to treatment protocols. In many cultures, cancer is a taboo word and topic, and this may prevent individuals from seeking medical care. Some languages do not have a word for "cancer", also making it difficult to convey specific information about the disease. In some cultures, fatalism—acceptance that every event is inevitable—may be a deterrent to seeking cancer screening or treatment. A diagnosis of cancer may bring about discrimination from family, friends, and community members. In some cases, a lack of social support may result in isolation or depression, and consequently, to disengagement from the treatment process. Providers are often ill prepared to communicate the complexities of cancer care to their diverse patient populations, which has been a source of health disparities for some populations (Institute of Medicine, 2002).

The communal nature of many American Indian communities in New Mexico serves as a cultural barrier to cancer care. Patients focus more on serving their communities than caring for their personal health. Individuals may delay or cancel medical appointments to participate in tribal events or assume leadership positions, even when this decision comes at great expense to their cancer outcome.

Differences in communication styles vary by culture, and healthcare providers sometimes lack the cultural awareness and competence to communicate effectively with people of diverse backgrounds. When different communication styles result in misunderstanding, patient care may be negatively affected and may result in adverse health outcomes that widen the gap in health disparities.

Language and Health Literacy

Language barriers may contribute greatly to cancer-related health disparities among people whose primary language is not English. Language factors can delay and/or inhibit access to cancer services. Challenges may include lack of information about available services, fear of jeopardizing immigration status, poor communication in prevention and treatment settings and an inability to comprehend the U.S.

47 Closing New Mexico's Rural Food Gap. New Mexico Food and Agriculture Policy Council.

48 Access the food locator online at: http://www.ers.usda.gov/data/fooddesert/fooddesert.html.

49 http://www.ers.usda.gov/data/fooddesert/about.html#Defined. Retrieved February 28, 2012.

50 Closing New Mexico's Rural Food Gap. New Mexico Food and Agriculture Policy Council.

51 Center for American Indian Health, Johns Hopkins Bloomberg School of Public Health. www.jhsph.edu/caih/Research_and_Programs/Current%20Projects/Nutrition/index.html. Retrieved February 28, 2012.

health care system. Patients may not understand printed health information that is not culturally or linguistically relevant or be aware of their right to an interpreter. The lack of trained medical interpreters for populations that are not proficient in English, as mandated by the federal government, adversely affects the quality of healthcare delivery. In New Mexico, many American Indian elders living on tribal land speak only their native languages. New Mexican Hispanics tend to be bilingual, but many of the more recent immigrants speak little or no English.

English speakers and non-English speakers alike have difficulty understanding medical terms and navigating the healthcare system. Decisions about medical care may be confusing and overwhelming, especially for those with low literacy, and low medical literacy, skills. Health literacy is the ability to understand and act on the basic health information and services needed to make health decisions. This includes understanding instructions on prescription drug bottles, informed-consent forms, appointment slips, medical education brochures, doctor's directions, and the ability to negotiate complex health care systems.

Studies show that low health literacy adversely impacts cancer incidence, mortality, and quality of life.[52] For example, cancer-screening information may be ineffective if the language used is too complex for patients to understand and follow. As a result, patients may be diagnosed at a later stage when treatment may be difficult. Also, treatment options may not be fully understood, and some patients may not receive treatments that best meet their needs. In another example, informed consent documents may be too complex for many patients, and they may not make the best decisions about intervention choices.

NEW MEXICO CANCER CONTROL CHALLENGES, STRENGTHS AND FUTURE DIRECTIONS

New Mexico is a poor rural state with large distances between healthcare services in some areas and gaps in healthcare delivery in others. Several challenges affect New Mexicans diagnosed with cancer across the continuum of care, including diagnosis, treatment decisions, adherence to care, and the overall disease management.

Poverty

Access to cancer care is facilitated by insurance coverage and/or the ability to pay for care. In 2010, more than 21 percent of New Mexicans under age 65 were uninsured, compared to 16.2 percent for the U.S (U.S. Census Bureau, 2011). Given that New Mexico's population is ranked among the poorest in the nation, it is not surprising that many New Mexicans, especially those who are uninsured or underinsured, face financial barriers when trying to access cancer care. For the working poor, leaving work for medical care adds to their financial burden. Low-income families are sometimes unable to afford private health insurance, yet they may be ineligible for government healthcare programs. In addition, poor communities are more likely to face health care disparities and not have access to prevention or screening services.

Medicare and Other Insurance Plan Reimbursement Rates and Practices

The delivery of healthcare in New Mexico is adversely affected by Medicare reimbursement rates that are lower than rates in many other states, and that are lower than the reimbursement rates of private insurance plans. The current Medicare reimbursement system creates a disincentive for healthcare providers to practice medicine in New Mexico, especially in rural areas. When the cost of care exceeds the amount Medicare reimburses, the cost is passed on to healthcare organizations, physicians, and privately insured individuals.

The long waiting times for appointments and limited amount of time spent with patients discourages discussions about preventive care. It also diminishes the possibility of addressing socio-cultural factors that affect patient care and adherence to treatment.

Many homecare needs of cancer patients (i.e., non-professional care) do not qualify for reimbursement. The current Medicare Prospective Payment System guidelines for home care specify that the patient must require skilled intermittent care (e.g., skilled nursing, physical therapy, or speech therapy), and must be homebound. The skilled service provider must complete an outcome and assessment information set (OASIS) to determine the patient's needs; based on need, the patient is certified for 60 days of care at a time. The family members of many cancer patients must stop working to care for their loved ones or hire private nursing services.

52 Cancer Treatment. Merriman, Betty, CA: A Cancer Journal for Physicians, May/June 2002

Cancer patients who are under 65 years of age and disabled and who qualify to receive Social Security Disability (SSD) benefits may need to apply for other programs for assistance, and/or may not be able to receive adequate care, because there is a two-year waiting period before SSD recipients become eligible for Medicare coverage. Adults who are disabled and have limited income and resources can also apply to receive Supplemental Security Income (SSI), which is accompanied by Medicaid. There is one special category of Medicaid that may cover women who are under 65 years of age, uninsured and have been diagnosed with breast and/or cervical cancer through New Mexico's Breast and Cervical Cancer Early Detection Program.

Access to Healthcare Facilities

A Health Professional Shortage Area (HPSA) is an area designated by the federal Health Resources and Services Administration (HRSA) as having a shortage of primary medical care, dental or mental health providers. They may be urban or rural areas, population groups or medical or other public facilities. HRSA designates a county as a HPSA when it has a population-to-primary care physician ratio of more than 3,500-to-1. New Mexico faces HPSAs in primary care, dental care and mental health care throughout much of the state, and in both rural and urban areas.[53] All but one of New Mexico's counties is labeled a HPSA in primary care.[54] As of early 2012, there are 94 designated primary medical care HPSAs in New Mexico.[55]

HRSA also designates Medically Underserved Areas/Populations (MUA/P). MUAs are determined using a ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over. MUP designation is given to population groups with economic barriers (low-income or Medicaid-eligible populations), or cultural and/or linguistic access barriers to primary medical care services. There are 36 designated MUAs in New Mexico, and 3-governor-designated MUPs.[56]

The lack of doctors in underserved areas has dramatic consequences for access to cancer care. It can mean longer waits in busier doctors' offices, increased travel times to see physicians, less exposure to preventive strategies and poorer health outcomes. Future predictions of more widespread physician shortages in rural areas make it a serious issue for policymakers to address.

Native American Access Challenges

The Indian Health Service (IHS) provides services to American Indians directly and through tribally contracted and operated health programs. Health services also include healthcare purchased from private providers. Cancer diagnosis and treatment requires specialized care that is generally not available in IHS health facilities. Limited funding for Contract Health Services with providers outside the IHS system has resulted in a large unmet need for cancer services, and consequently, in delays in treatment and follow-up care for some American Indian cancer patients.

An additional challenge to receiving care is location. At least 65 percent of American Indians in New Mexico reside outside of Indian lands (U.S. Census Monitoring Board, 2001). The urban American Indian population in the state is comprised of individuals from as many as 202 tribes, including tribes based outside of New Mexico. Despite the high numbers of American Indians living in urban areas, only one percent of the IHS budget is allocated to urban programs. IHS contract care is limited to tribal members living within their local area, which usually does not include urban areas. Thus, for American Indians living outside the contract care county line, there is no established financial system to cover their cancer care.

American Indians who live in New Mexico but are not considered New Mexican residents under the IHS system are not eligible for Contract Health Services in the state, even though they are eligible for treaty-guaranteed Indian health care. Those patients would have to move back to their reservation outside of New Mexico for services, regardless of whether they have any support system or access to cancer care near their home reservations.

The challenge around cancer care for American Indians in New Mexico is a systemic issue. That the Indian Health Service lacks resources to provide for cancer care for New Mexico's American Indian population is a policy issue that must be addressed by lawmakers and the state's healthcare system. Educating healthcare providers in the state on the inadequacy and or lack of IHS cancer care services may result in greater efforts to find alternative resources for New Mexico's American Indian population to receive the medical treatment they need and deserve.

53 Kaiser Family Foundation State Health Facts, 2008

54 NM DOH Comprehensive Strategic Health Plan, 2008

55 HRSA Web site: http://datawarehouse.hrsa.gov/HIMSFactSheet.aspx?statecd=35. Retrieved February 29, 2012.

56 Ibid.

New Mexico Cancer Control Strengths - Telemedicine

Telemedicine-medical services delivered to or from a distant site via telephone, computer, fax machine or interactive video system. The goal of telemedicine is to provide the same level of healthcare to rural patients with chronic diseases as can be obtained in an urban setting. A secondary goal is to provide rural healthcare practitioners with a level of interaction and support commensurate with their urban counterparts to enhance their technical competence and decrease their feelings of professional isolation. Telemedicine saves time and travel expenses for providers and patients, allows for reductions or substitutions in medical personnel and improves the chances for early diagnosis of disease.

Future Direction

Rethinking the healthcare system to address unmet social needs

Unmet social needs strain the system, resulting in poorer health and a greater reliance on high-cost emergency care. Our current health care system places its greatest emphasis on curing illness rather than disease prevention or population health. However, health care itself plays a relatively small role in life expectancy when compared to influences such as social circumstances, environmental exposure and behavior. The social determinants of health – the circumstances in which people are born, work, live, grow and age – contribute significantly to social inequalities in health. There is strong evidence linking social needs to health and life expectancy. Factors such as access to nutritious food, transportation assistance and adequate housing play as important a role in a person's health as medical treatment or prescription drugs. These factors may be considered the causes of the causes of illness.

Shifting health care's focus from cure to prevention will require strengthening cross-sectoral activities that focus on the social determinants of health. Standard patient care should include the diagnosis and treatment of non-medical, but health critical, conditions. Health care providers must be aware of how these conditions affect health and have the tools to address them in their individual relationships with patients. At the time of this Plan's writing, innovative models are being implemented and evaluated in some parts of the country that allow doctors and other health care providers to develop solutions that improve health, not just manage disease. For example, doctors "prescribe" housing, food, fuel assistance, child care and other services just as they would a medication. Community health centers and similar institutions are establishing partnerships with community organizations to address the "root causes" of the health conditions patients present with. In this capacity, health professionals can be advocates and work with and within other parts of the public and private sector.

Healthcare providers can make significant contributions to addressing the social factors that contribute to poorer health outcomes. This will require a firm understanding of how factors outside of the clinical setting shape health. Medical education and training require reform so that social determinants become standard part of curricula. For a clinic or medical institution to effectively address social determinants of health, a shift in activities, culture, norms, and values within the institution, as it currently exists may be required.

Coordinated efforts to reduce the burden of chronic diseases

Chronic conditions such as diabetes, heart disease, stroke, and many cancers have their origins in shared risk factors that include use of commercial tobacco products, unhealthy body weight, and insufficient physical activity. Many of the most effective strategies for reducing chronic disease are also shared. A combination of limited resources and increasing healthcare costs, in addition to shared risk factors and common prevention and control strategies, has led to an emphasis on working across "disease-specific" programs and with multiple and diverse partners. This understanding led to the creation of the New Mexico Shared Strategic Plan, a document focused on prevention and control of arthritis, cancer, diabetes, heart disease, stroke and tobacco use.

There is increasing awareness that, although health-related choices are individual in nature, personal decisions can be either supported or negatively impacted by a person's social, physical, economic, and regulatory environment. In the U.S., wealth is the strongest predictor of health and longevity.[57] The Shared Strategic Plan addresses the importance of implementing policy, systems and environmental changes that support individual behavior change. These are useful strategies for addressing

57 MacArthur Research Network on SES and Health. Reaching for a Healthier Life: Facts on Socioeconomic Status and Health in the U.S. N.D. www.macses.ucsf.edu/downloads/Reaching_for_a_Healthier_Life.pdf

chronic diseases such as cancer because they affect large numbers of people. Examples of broad scale approaches to reducing the burden of cancer include insurance coverage for cancer screening and treatment, tobacco excise taxes, clean indoor air ordinances, regulation of indoor tanning devices, policies to improve nutrition and increase physical activity, and implementation of patient navigation systems.

In an effort to improve coordination and collaboration, New Mexico's Shared Strategic Plan for the prevention and control of chronic diseases includes selected goals and objectives from the New Mexico Cancer Plan. Implementation of the Shared Strategic Plan will be facilitated by the New Mexico Chronic Disease Prevention Council, with the New Mexico Cancer Council taking the lead on overseeing implementation of cancer-specific objectives.

COORDINATION / IMPLEMENTATION AND EVALUATION

New Mexico Cancer Plan Goals and Objectives

The goals and objectives in the New Mexico Cancer Plan represent an ideal for the state, with the intent that these will be met through collaborative efforts. The data targets are measured using the best guidelines available at the time this Plan was written, recognizing that guidelines evolve and change over time.

In an effort to improve coordination and collaboration, New Mexico's Shared Strategic Plan for the prevention and control of chronic diseases includes selected goals and objectives from the New Mexico Cancer Plan. The New Mexico Shared Strategic Plan is a document focused on prevention and control of arthritis, cancer, diabetes, heart disease, stroke and tobacco use. The plan addresses the importance of implementing policy, systems and environmental changes that support individual behavior change. These are useful strategies for addressing chronic diseases such as cancer because they affect large numbers of people.

A ✶ symbol indicates the goal and objective are also represented in the New Mexico Shared Strategic Plan.

GOAL #1: Improve individual lifestyle behavioral outcomes (increased physical activity, improved dietary intake, tobacco prevention and cessation, decreased alcohol consumption, healthy sexual behavior, and psychological well-being) through culturally and linguistically competent programs and interventions.

Objectives:

1. Realize a 2017 adult obesity prevalence of 27.4% or lower (i.e., statistically unchanged from 2007-2010 rates), as evidenced by the BRFSS.
2. By 2017, increase by 10% the proportion of NM adults who meet recommendations or moderate or vigorous physical activity, from a 2009 baseline of 53.3% to 58.6%.
3. By 2017, increase by 10% the proportion of NM high school youth who meet daily recommendations for physical activity, from a 2009 baseline of 23.4% to 25.7%.
4. By 2017, increase by 10% the proportion of NM middle school youth who meet daily recommendations for physical activity, from a 2009 baseline of 30.2% to 33.2%.
5. By 2017, decrease by 10% the proportion of NM adults who report engaging in no leisure time physical activity, from a 2010 baseline of 21.6% to 19.4%.
6. By 2017, increase by 10% the proportion of adult smokers who saw a health care provider in the past year who were advised to quit smoking, from a 2009 baseline of 79% to 87%.
7. By 2017, decrease by 25% the proportion of NM middle school youth who have smoked cigarettes in the past 30 days, from a 2009 baseline of 6.8% to 5.1%.
8. By 2017, decrease by 25% the proportion of NM high school youth who have smoked cigarettes in the past 30 days, from a 2009 baseline of 24% to 18%.
9. By 2017, decrease by 14% the proportion of NM adults who currently smoke cigarettes, from a 2010 baseline of 18.5% to 16%.
10. By 2017, increase by 7% the proportion of NM adult smokers who have tried quitting in the past year, from a 2010 baseline of 60.7% to 65%.
11. By 2017, decrease by 25% the proportion of NM adults who use spit, chew or snuff tobacco, from a 2010 baseline of 4.1% to 3.1%.
12. By 2017, decrease by 25% the proportion of NM high school youth who use spit, chew or snuff tobacco, from a 2009 baseline of 11.8% to 8.9%.
13. By 2017, increase by 10% the proportion of NM adults who consume at least 5 servings of fruits and vegetables per day, from a 2009 baseline of 23.2% to 25.5%.
14. By 2017, increase by 10% the proportion of NM high school youth who consume at least 5 servings of fruits and vegetables per day, from a 2009 baseline of 20.9% to 23%.
15. Increase the proportion of New Mexicans who regularly practice sun safety behaviors, by 2017.
16. Reduce by 5%, from 31.7 percent (2006 BRFSS) to 30 percent, the proportion of New Mexican adults who report one or more sunburns in the past year, by 2017.
17. Increase the number of schools that receive technical assistance to implement comprehensive sun-safe policies, from 32 to 40, by 2017.

A ✶ symbol indicates the goal and objective are also represented in the New Mexico Shared Strategic Plan.

GOAL #2: Improve access to culturally and linguistically competent, appropriate and effective cancer prevention, education, screening, diagnosis, treatment care and survivor services. ✶

Objectives:

1. Increase cultural competency among healthcare providers, by 2017 by collaborating with Schools of Nursing and Medicine to ensure training in cultural competency in graduation requirements.
2. Provide 16 trainings on cancer to promotoras/healthcare workers to improve healthcare delivery in NM, by 2017. ✶
3. Provide 20 trainings to civic organizations, businesses, churches, etc. on cancer prevention, education, screening, diagnosis, treatment and survivor services by 2017. ✶
4. Develop a Colorectal Cancer public awareness and education media campaign for New Mexico and promote it annually in March to highlight Colorectal Cancer Awareness month. ✶

GOAL #3: Improve the quality of life for New Mexicans living with cancer throughout the cancer journey. ✶

Objectives:

1. Develop (or promote existing) talking points to help people with cancer address quality of life issues with their providers by 2017. ✶
2. Distribute materials that describe the talking points to survivorship organizations for dissemination to cancer survivors and their families, by 2017. ✶
3. Maintain the number of Cancer Council organizations that promote the Albuquerque Cancer Coalition resource directory at 40.
4. Collaborate with other organizations to support policy changes to provide cancer survivors with access to their individual comprehensive cancer care summaries and follow-up plans.
5. Increase access to practical and emotional support services for New Mexicans coping with cancer, by implementing programs that address gaps in these areas by 2017.

GOAL #4: Ensure equal access to pain management, palliative care, complementary and alternative services with proven evidence based efficacy, and end of life services.

Objectives:

1. Increase awareness among policymakers and mass media professionals about barriers to accessing cancer pain management, palliative care, complementary and alternative services with proven evidence based efficacy, and end of life services, by developing and promoting (or promoting an existing) document highlighting the issues and presenting to lawmakers prior to legislative session (60-day sessions) by 2017.
2. Ensure access to palliative care for all cancer patients by making palliation an option for all cancer patients at time of diagnosis.
3. Improve access to complementary and alternative medical (CAM) services by developing a list of evidence-based CAM and posting it on NMCC website.

GOAL #5: Increase culturally and linguistically competent and effective education about appropriate screening services for the early detection and/or prevention of cancer among New Mexicans. ✶

Objectives:

1. Increase awareness about accessing cancer detection and treatment programs among the general public in New Mexico, by 2017. ✶
2. By 2017, increase – through education and awareness efforts – by 6% the proportion of NM women ages 21 through 65 (who report not having had a hysterectomy) who have had a Pap test in the past 3 years, from a 2010 baseline of 85.8% to 91%.
3. By 2017, increase – through education and awareness efforts – by 15% the proportion of NM men and women ages 50 through 75 who are up-to-date with colorectal cancer screening, from a 2010 baseline of 59.8% to 68.8%.

A ✶ symbol indicates the goal and objective are also represented in the New Mexico Shared Strategic Plan.

4. By 2017, increase – through education and awareness efforts – by 15% the proportion of NM women ages 40 and older who have had a mammogram in the past 2 years, from a 2010 baseline of 71% to 81.7%.
5. Increase the number of men, especially those at high risk, who receive state-of-the-art, culturally and linguistically appropriate information about prostate cancer and screening, by 2017.
6. Improve healthcare providers' ability to educate patients about hereditary cancer risk assessment including genetic testing and counseling, by 2017.
7. Raise awareness about family medical history, hereditary risk assessment, genetic testing, and genetic counseling among New Mexicans at higher-than-average risk for hereditary forms of cancer, by 2017.
8. Assure that New Mexicans recruited into cancer clinical trials are receiving culturally and linguistically appropriate informed-consent materials, by 2017.

GOAL #6: Reduce the rates of cancers caused by social, economic, and physical environment factors.

Objectives:

1. Collaborate with other organizations to create and support policies that would improve access to healthy food choices and promote higher levels of food security for all New Mexico populations.
2. Raise awareness of the need to reduce exposure to physical environmental factors known to cause cancer.
3. Raise awareness of the social determinants of health related cancer disparities.

GOAL #7: Reduce disparities and inequities in cancer incidence, morbidty, and mortality in New Mexico

Objective:

1. Increase awareness about cancer health disparities by distributing cancer stats comparing different racial groups to legislators prior to the start of the legislative session (60-day sessions) by 2017.

GOAL #8: Reduce disparities and inequities in access to appropriate and effective cancer prevention, screening, diagnosis, treatment, care and survivor services.✶

Objectives:

1. Support efforts to analyze data on cancer disparities in New Mexico in order to identify strategies to reduce inequalities in cancer control and prevention. Promote data reports to Council members through listserv and to legislators, the Governor's Office and the press prior to the start of the legislative session (60-day sessions) by 2017.✶
2. Improve access to cancer prevention, screening, diagnosis, treatment, care and survivor services Complementary and Alternative (CAM) services and clinical trials, especially among minority and rural populations, and among low-income, underinsured, and uninsured populations, by 2017, through expanding patient navigation services.
3. Increase use of age specific cancer screening using U.S.P.S.T.F. or other nationally recognized evidence-based recommendations for all NM populations.
4. Promote/encourage culturally and linguistically competent providers and approaches when addressing issues of access, especially among minority and rural populations, and among low-income, underinsured, and uninsured populations, by 2017.
5. Assess the need for/feasibility of a financial assistance fund for individuals diagnosed with Colorectal Cancer by June 2014.✶

A ✶ symbol indicates the goal and objective are also represented in the New Mexico Shared Strategic Plan.

GOAL #9: Improve cooperation, coordination, and collaboration among organizations and federal, state, tribal, county and local governments engaged in community-oriented cancer control.

Objectives:

1. Assess the supply and distribution of the cancer care provider workforce in New Mexico and provide results to all levels of government and to health organizations, by 2017.
2. Develop a comprehensive and current resource list of cancer control and prevention providers and organizations in New Mexico for posting on the New Mexico Cancer Council Web site, by 2017.
3. Inform medical providers, public health practitioners, planners, advocates, educators, and others involved in all areas of cancer control in New Mexico about the resource list on the New Mexico Cancer Council Web site.
4. Assess the state's capacity for providing appropriate and adequate cancer care services to New Mexico's tribal communities, by 2017.
5. Assess the state's capacity for providing appropriate and adequate cancer care services to New Mexico's growing and aging population, by 2017.
6. Work with advocacy and other organizations to promote policy change promoting informed patient consent and consumer protection, and restricting unfair coding practices that allow the reclassification of screening colonoscopies to diagnostic colonoscopies when polyps are found, resulting in additional cost to the patient.
7. Develop and deliver a plan for improving provider education around colorectal cancer screening using FIT/FOBT as a primary screening modality by July 2014.
8. Collaborate with the County/Community/Tribal Health Councils to promote screening awareness and utilization at the population level.

Evaluation

The Plan suggests approaches, offers guidance, and encourages collaboration and partnership among individuals and organizations that work to promote cancer prevention and early detection, deliver cancer treatment services, engage in cancer research and provide quality of life care. Public health agencies, healthcare providers, non-profit community organizations, non-health-sector partners such as medical, education, transportation, and community development and planning, and the public at large are all encouraged to participate in controlling and preventing cancer throughout the state of New Mexico.

Evaluating the implementation of select objectives provides insight into the Plan's success, utility and feasibility. The difficulty with conducting a comprehensive evaluation of implementation of the plan is that although organizations are working towards specific objectives, there is a lack of dedicated funding allocated to implement the entire Plan.

Currently, the State of New Mexico Comprehensive Cancer Program has dedicated some funds to develop, implement, analyze, and report on Cancer Council members' progress towards the goals and objectives via an online survey. Additionally, the Comprehensive Cancer Program (CCP) has access to the following data sources:

- New Mexico Department of Health's Behavioral Risk Factor Surveillance System Data
- CCP Contractor Reports
- Surveillance, Epidemiology and End Results (SEER) Program data
- New Mexico Cancer Council Meeting Minutes, including Work Group minutes

These data sources will be used to identify progress on many of the Plan's objectives.

Photo courtesy of Alexander M. Evans, PhD

Considerations for Implementing the NM Cancer Plan in Native American Communities

NM Cancer Council Native American Workgroup

Background & Purpose

The purpose of this section is to provide practical ideas and examples for how the NM Cancer Plan goals can be implemented in Native American communities. The NM Cancer Council Native American Workgroup identified existing structures, such as cultural strengths, programs, and resources that are available in communities that are important for addressing cancer and support the cancer plan goals. The workgroup also identified challenges that Native Americans face in addressing cancer and that make it difficult to implement the cancer plan goals. Cultural considerations for addressing cancer that arose from the dialogue among the Native American workgroup members are also included in this section to help non-Native providers to better understand common issues related to cancer care for Native Americans.

It is important to recognize that every Native American community is different and that every community has their own unique strengths important for health and wellness that are relevant for addressing cancer. Individuals within communities are equally diverse. For example, not all Native Americans have a strong cultural connection to their tribe of origin. There is not one approach that will work for all Native Americans. It is up to communities to decide which goals are most important for them to work on and what approaches will work the best.

For many Native American communities cancer is not openly discussed and if it is discussed the discussion is often limited. Education about cancer is important for changing this. Implementation of the NM Cancer Plan will be limited if cancer is not a topic that communities discuss. For communities to use the cancer plan, education about cancer and the cancer plan is needed. Getting the support of tribal leadership is also important for addressing cancer in a comprehensive manner that is connected to a statewide initiative.

Selected NM Cancer Plan Goals

The New Mexico Cancer Council Native American Workgroup selected the following cancer plan goals for inclusion. These goals were identified as the most applicable and doable goals for Native American communities to implement:

GOAL 1

Improve individual lifestyle behavioral health outcomes (increase physical activity, improved dietary intake, tobacco prevention and cessation, decreased alcohol consumption, healthy sexual behavior, and psychological well-being) through culturally and linguistically competent programs and interventions.

GOAL 2

Improve access to culturally and linguistically competent, appropriate and effective cancer prevention, education, screening, diagnosis, treatment, and survivor services.

GOAL 3

Improve the quality of life for New Mexicans living with cancer throughout their cancer journey.

GOAL 4

Ensure equal access to pain management, palliative care, complementary and alternative services with proven evidence based efficacy and end of life services.

GOAL 5

Increase culturally and linguistically competent and effective education about appropriate screening services for the early detection and/or prevention of cancer among New Mexicans.

GOAL 8

Reduce disparities and inequities in access to appropriate and effective cancer prevention, screening, diagnosis, treatment, and survivor services.

It is important to note that each goal also has separate objectives. However, many of the objectives are challenging to achieve at the community level and are NM Cancer Council objectives that can be achieved and measured collectively. For example, for Goal 2 the first objective is to "Increase cultural competency among healthcare providers, by 2017 by collaborating with Schools of Nursing and Medicine to ensure training in cultural competency in graduation requirements." Therefore, ideas and examples presented relate to the goals but the ideas and examples are not provided for each of the corresponding objectives.

Discussion for the selected cancer plan goals includes cultural considerations and challenges related to the goals and examples of existing community structures that support the goals.

GOAL #1: Improve individual lifestyle behavioral outcomes (increased physical activity, improved dietary intake, tobacco prevention and cessation, decreased alcohol consumption, healthy sexual behavior, and psychological well-being) through culturally and linguistically competent programs and interventions.

Cultural Considerations

Defining what culturally and linguistically competent programs and interventions means from a community perspective is important for prevention, education, screening, diagnosis, treatment, and survivor services. It is important to ask the people in the community who are receiving services, especially the grandmas and grandpas (i.e. elders) in the communities, what culturally and linguistically competent means to them and what they want their services to look like.

Existing Structures

Within many Native American communities there are already structures and programs that are in place to improve individual lifestyle behavioral health outcomes that reduce one's risk for developing cancer. Programs do not have to be cancer specific for one to benefit and see improved health outcomes. For example, diabetes prevention programs strive to increase physical activity and improve dietary intake, behaviors that are also important for cancer risk reduction. Discussion about shared risk factors for cancer, diabetes, heart disease, and stroke (i.e. tobacco use, unhealthy diet, and being physically inactive) can be included in these disease specific programs so that individuals recognize that by adopting healthier habits they are reducing their risk for several chronic diseases. This is especially important since community based health programs (i.e. Community Health Representative, diabetes prevention, etc.) have their own scope of work already laid out for them and don't always have support to carry out additional work.

Native American workgroup members identified the following examples of a few structures and programs in their respective communities that support Goal 1.

Examples of Existing Structures/Programs to Increase Physical Activity

- Cardio Boot Camp and Zumba classes to promote physical fitness to general population (free programs in various tribal communities)
- Indian Health Service Physical Activity Kit (PAK)
- Monthly Just Move It activities (Just Move It is a North American campaign to promote physical activity for Indigenous Peoples)
- Senior Olympics
- Weight lifting/training programs
- Wellness and fitness centers

Examples of Existing Structures/Programs to Improve Dietary Intake

- Community gardens
- Local farmers market
- Traditional cooking demonstrations

Examples of Existing Structures/Programs for Psychological Well-Being

- Diabetes support group
- Isleta Cancer Education Support Group
- Journey Into Wellness Support Group

Examples of Existing Structures/Programs for Cancer Education

- Cancer awareness events and health fairs
- Albuquerque Area Indian Health Board Colorectal Health Program (education and training)
- UNM Cancer Center Native American Cancer Education & Outreach Program (education and training in Native American communities)

Examples of Existing Structures/Programs for Youth

- Summer camps for youth focused on diabetes prevention
- Teen Health Center (Prevention Services)
- Health education by tribal health programs delivered in local schools

Other

- Collaboration among tribal programs to provide health education
- Community Health Representatives (CHRs) serve as health resource to communities
- Diabetes clinics
- Health lists via email list serve to tribal employees and community members
- Healthy Heart Programs
- Maternal/child health programs
- Language and cultural programs
- Indian Education programs in the public schools

Challenges

The objectives under this goal of the NM Cancer Plan measure individual level behavior change. Because individual behaviors are impacted by health policies, it is important to consider promoting policies that support positive lifestyle behavior changes. Examples of health policies include time off for employees to exercise during the workday, inclusion of physical education in schools, and safe walking routes to school. Some tribal governments have implemented commercial tobacco policies within certain settings in their communities.

GOAL #2: Improve access to culturally and linguistically competent, appropriate and effective cancer prevention, education, screening, diagnosis, treatment care and survivor services.

Cultural Considerations

Culturally and linguistically appropriate services are about patients and their families being treated by providers with respect and compassion. Negative interactions and encounters with health care providers are of concern in Native American communities, because this can prevent a patient from seeking cancer screening tests and treatment for cancer in the present and in the future. It is important that providers are taught about the concept of cultural humility. Cultural humility includes an ongoing commitment by providers to self-evaluate how they interact with patients, communities, colleagues, and themselves to restore power imbalances and develop mutually respectful partnerships based on trust (Tervalon and Murray-Garcia, 1998). "We can change the culture of existing care by talking about delivering good health care as partners."

Also of concern is that Native American patients are not always given treatment options. Reasons for this may include assumptions health care providers have about Native American patients' ability to comply with treatment and lack of access to state-of-the-art treatment.

Internalized oppression may also be a factor for some Native Americans seeking health care that results in some patients not questioning their health care or asking about treatment options. "A doctor is in a white coat telling you what is going to happen." Therefore, it is important for Native American patients to know their rights as a patient to make decisions about their treatment plan; to know about the results of their tests that are done on them; and to be given the information that is understandable. "It is important for people to know that if you think you are not given the best care you can question it."

It is important to learn from elders in communities who are cancer survivors because "they have overcome red tape to get western medical care."

Additional Recommendations for Health Care Providers Working with Native American Patients

- Allow time for patients to tell their story; sit and listen.
- Don't rush a patient. Take time to listen to patients and to answer their questions.
- Explain things so patients can understand. Use models and pictures to educate patients about what is going on with their body.
- Respect a patient's privacy by closing the door when visiting with them.
- Talk directly to a patient and look at the patient to show you care and are listening. Even when communicating through a translator or family member, speak directly with the patient.
- Tell patients it is okay to let the doctors and nurses know if they don't understand what they are being told.
- Translation is important for patients who do not speak English. Translators need to be well versed in and understand the medical information to translate accurately to the patient. Doctor and translator need to have a shared understanding and be on the same page.
- Health care providers working with translators must understand that indigenous languages often don't have words for many diseases and body parts, so translation can be time consuming and tedious. What may seem like a long and complicated conversation during a translation is not reflective of an in-depth discussion but rather an attempt to build clarity and precision into the translation.

Existing Structures

The following examples of existing structures and programs are just a few ideas that were shared by Native American workgroup members that are happening in their respective communities that support Goal 2.

- Acknowledgement of cancer awareness months in tribal communities
- Cancer awareness/prevention activities
- Health education booths, presentations
- Home visits
- Social workers and benefit coordinators to advocate for clients
- Transportation programs (CHR, Safe Ride, and Public non-profit)
- Tribal health facilities use of third-party reimbursement funds to support cancer prevention & ancillary services (such as transportation). Third party reimbursement funds can be set aside for patients who don't have insurance or who don't qualify for Medicaid, Medicare or other services

Challenges

Accessing cancer services (i.e. screening and early detection, diagnosis, and treatment) is a major challenge for Native Americans. Many Native Americans rely on Indian Health Service (IHS) for health care services. IHS, however, is not an insurance program, and the resources available to adequately address the health care needs of Native Americans are not available. Medical/dental care provided at an IHS or tribal health care facility is called Direct Care. The IHS Contract Health Service (CHS) Program is for medical/dental care provided away from an IHS or tribal health care facility. CHS is not an entitlement program and an IHS referral does not imply the care will be paid. If IHS is requested to pay, then a patient must meet the residency requirements, notification requirements, medical priority, and use of alternate resources. Many patients do not qualify for CHS or other programs such as Medicaid or Medicare, neither do they have private insurance to pay for their medical expenses.

With the delivery of effective cancer education in the communities a demand for recommended screening is generated. Some patients show up to their doctor and the provider does not recommend screening or have the latest screening technologies available (for example, the latest colorectal cancer stool cards). The health care system needs to be ready for increased interest in being screened for cancer.

Transportation is another major challenge because of distance of tribal communities to medical facilities.

GOAL #3: Improve the quality of life for New Mexicans living with cancer throughout the cancer journey.

Cultural Considerations

Integrated care that incorporates Native American core values that are unique to each Native American community is important. At the community level health is more integrated with many more people being involved. For many Native Americans health includes a broader view beyond the physical body and disease. Health also includes spiritual, mental, emotional, and social wellbeing and balance. Balancing native and western ways for healing is critical. It may take longer for some Native American patients to seek western treatment, because they will use their traditional treatments first or in concert with western treatment. Doctors may not recognize the importance of seeking traditional healing for their patients, but for many Native Americans it is a necessary step for healing. "Doctors may have the technology, but they don't treat the spirit of the person."

For some Native American patients the inclusion of traditional languages in explaining cancer care information and visiting them in their home is important. Although an individual may speak or understand English they will understand the information when it is delivered in their own native language which is their primary language.

Cancer affects families and not just the individual diagnosed with cancer. Families, including extended family and relatives, are involved in a person's care and decision-making whether it is traditional or western cancer care. Support for families is also important to consider. Cancer survivors and their family members also have a role in teaching others about their experiences with cancer to help others understand more about cancer.

Existing Structures

The following examples of existing structures and programs are just a few ideas that were shared by Native American workgroup members that are happening in their respective communities to support Goal 6.

- Cancer/wellness support group (group discussions)
- Culture and spirituality
- Family and community support
- Massage therapists
- Public Health Programs (i.e. case managers, lifestyle coaches, etc.)

Challenges

Although cancer support groups are identified by many Native American communities as a need for community members diagnosed with cancer and caregivers, support groups have been found to be poorly attended due to community stigma around cancer. The same has been observed for diabetes support groups.

GOAL #4: Ensure equal access to pain management, palliative care, complementary and alternative services with proven evidence based efficacy, and end of life services.

Cultural Considerations

See cultural considerations for Goal 2 on page 39 and Goal 3 above.

Existing Structures

The following examples of existing structures and programs are just a few ideas that were shared by Native American workgroup members that are happening in their respective communities that support Goal 4.

- Acupuncture
- Adult day care and respite
- Cultural/traditional medicine (herbal)
- Home health care and medical supply
- Support care

GOAL #5: Increase culturally and linguistically competent and effective education about appropriate screening services for the early detection and/or prevention of cancer among New Mexicans. ✶

Cultural Considerations

For some communities starting the conversation about cancer can be difficult. Materials designed for Native Americans can help to start the conversation. Education that is culturally and linguistically competent incorporates traditional knowledge about health and wellness and incorporates the use of native languages when possible. It is also important to teach about cancer at a level that can be understood within the community. Explanation of terminology is important as well as incorporating pictures and models to help people understand cancer and health. Although it takes time, education is the key to helping people to become comfortable enough to talk about cancer. For most Native American communities the culture has traditional teachings about being healthy and how to take care of one-self that are important for preventing diseases such as cancer, diabetes, heart disease, and stroke.

Existing Structures

The following examples of existing structures and programs are just a few ideas that were shared by Native American workgroup members that are happening in their respective communities that support Goal 5.

- Diabetes Program (educator, nutritionist)
- Home visits to patients to discuss health
- Medicine men (herbs)
- Wellness centers
- Digital storytelling workshops

Challenges

In some communities getting people to participate in cancer education activities is not easy. Many times the people who attend community-based cancer education sessions are individuals who have personally been affected by cancer. It takes time to get people to participate, therefore consistency is important; so we must continue to provide information.

GOAL #6: Reduce disparities and inequities in access to appropriate and effective cancer prevention, screening, diagnosis treatment, and survivor services.

Cultural Considerations

Tribal leaders are in a unique position, because of the sovereign status of tribes, to advocate on behalf of their communities on a government-to-government basis with state and federal entities to impact policies to improve access to health services for Native American people. The role of tribal leadership is important for reducing disparities and inequities in order to facilitate access to appropriate and effective cancer prevention, screening, diagnosis, treatment, and survivor services. Educating tribal leaders about the NM Cancer Plan to gain their support for improved health for Native Americans is critical. Establishment of a collaborative agreement with tribal leadership is an important step for the New Mexico Department of Health in gaining support for strategies outlined in the NM Cancer Plan.

See cultural considerations for Goal 2 on page 39.

Existing Structures

The following examples of existing structures and programs are just a few ideas that were shared by Native American workgroup members that are happening in their respective communities that support Goal 8.

- Advocacy and support of tribal governments (i.e. tribal leadership).
- Community health assessments that identify gaps in health services
- Community task forces and coalitions consisting of community providers to advocate on behalf of community
- Education (materials, workshops, training)
- IHS field health nurses and Community Health Representatives to advocate on behalf of clients/patients
- Medical transportation

Summary

Although the goal of the Cancer Plan is to improve cancer outcomes, in order to have an impact in Native American communities, there has to be a broader appeal that builds on and acknowledges the successful chronic prevention disease programs, wellness centers, and other family-centered and community-centered health programs within tribes. By building community and heath-centered wellness messages, we promote good health while reducing cancer risk in a culturally-congruent manner. Activities in this guide are suggestions, based on experiences of members of the NM Cancer Council's Native American workgroup – others are invited to use these ideas as a starting place for re-visioning ways to address cancer in their communities.

NATIVE AMERICAN CANCER RESOURCES

Albuquerque Area Southwest Tribal Epidemiology Center (AASTEC)

The AASTEC is a tribal organization with established partnerships with 27 tribes in Albuquerque Area that provides data for adults aged 18 years and older related to cancer risk factors (i.e. tobacco, nutrition, exercise, alcohol, obesity; screening, survivorship; access to health care; environment). AASTEC also provides training on database development, which allows tribal health programs to track and monitor activities and outcomes. For information call (505) 764-0036 or visit the Web Page at www.aastec.net.

Cancer Support Leadership Training

The IHS Division of Epidemiology and Disease Prevention, the Centers for Disease Control and Prevention, and the Great Plains Tribal Chairmen's Health Board are collaborating to bring this training to American Indian and Alaska Native people interested in starting cancer support in their own communities. The first training was held in January 1995 and modeled after Mary P. Lovato's cancer support group, "A Gathering of Cancer Support." This 3-day training gives participants a unique opportunity to work together in a safe, supportive environment to learn and practice skills to help people affected by cancer in their communities. For information call Mary Reiner at: 605-721-1922 or email: mary.reiner@gptchb.org or email Roberta Paisano at: roberta.paisano@ihs.gov.

UNM Cancer Center Native American Education & Outreach Program

The goal of the UNM Cancer Center Native American Education & Outreach Program is to reduce cancer disparities in, and ultimately deliver comprehensive cancer care services to, the state's NA population through: 1) Outreach to build relationships between NM's Native American communities and UNMCC; and 2) Implementation of community-based cancer education (Cancer 101, breast & cervical cancer education, colorectal cancer education, NACELI) working with community health representatives. The Cancer 101 program builds on cultural strengths in the delivery of basic cancer education modules; works to alter negative beliefs regarding cancer; and recognizes what is already taking place in Native American communities that is beneficial to health. The Native American Cancer Education Leadership Institute (NACELI) was developed in 2006 to mobilize communities to address cancer. The two-day institute is designed to build and strengthen existing community capacity for comprehensive cancer control and to connect communities with local, state, and national resources. For information call Michele Suina at: 505-272-4007 or email: msuina@salud.unm.edu.

Evidence-based activities and resources to support New Mexico Cancer Plan Goals

The following pages provide a guide of possible resources and evidence-based activities that may be used by readers of this Plan to help them with their individual and/or organizational goals related to reducing the burden of cancer. This list is by no means exhaustive.

GOAL #1: Improve individual lifestyle behavioral outcomes (increased physical activity, improved dietary intake, tobacco prevention and cessation, decreased alcohol consumption, healthy sexual behavior, and psychological well-being) through culturally and linguistically competent programs and interventions.

Evidence-Based Activities	Program Focus	Population Focus
1. New Mexico QUIT NOW Tobacco Cessation Services Designed to provide QUIT NOW telephone and web-based cessation services, which include free quit plans, coaching, free nicotine patches, and text messaging support.	Behavior Modification and Tobacco Use Prevention	Current Smokers
2. ALIVE! Designed to promote healthy dietary habits and increase physical activity. (2008)	Behavior Modification	Employees
3. Body & Soul Community-based program designed to increase fruit and vegetable consumption. (2004) NCI (Grant number not available.), American Cancer Society (Grant number not available.)	Behavior Modification	Faith-Based Groups
4. CARDIAC Kinder Designed to promote healthy dietary habits and increase physical activity. (2005)	Awareness Building and Behavior Modification	School Children
5. Commit to Quit Designed to test the efficacy of vigorous-intensity physical activity as an aid for smoking cessation for women. (1999) NCI (Grant number: CA01757) , NCI (Grant number: CA59660)		

6. DINE Healthy: Diet Improvement Software Designed to promote healthy dietary habits. (1991) NIA (Grant number: AG06259)	Behavior Modification	Other Individuals
7. Eat for Life Community-based program designed to promote healthy dietary habits. (2001) NCI (Grant number: CA69668)	Behavior Modification	Faith-Based Groups
8. Eating for a Healthy Life (EHL) Project Designed to promote healthy dietary habits among religious community members. (2009) NCI (Grant number: R01-CA-79077)	Behavior Modification	Sedentary Individuals
9. Evaluation and Modification of Exercise Patterns in the Natural Environment Designed to increase physical activity among sedentary individuals. (1980) NIMH (Grant number: MH35185)	Behavior Modification	Sedentary Individuals
10. Healthy Body Healthy Spirit Community-based program designed to promote healthy dietary habits and increase physical activity. (2005) NHLBI (Grant number: HL64959)	Behavior Modification	Sedentary Individuals
11. Little by Little Designed to increase fruit and vegetable consumption among low-income African American or White women. (2004) CDC (Grant number: U48/909706-09)	Behavior Modification	Medically Underdeserved
12. Physical Activity and Nutrition for Health Designed to increase physical activity and promote healthy dietary habits. (2005) NHLBI (Grant number: R15HL42626-01-A4)	Awareness Building and Behavior Modification	School Children
13. Physically Active for Life (PAL) Designed to increase physical activity among adults aged 50 years and older. (1999) NIA (Grant number: AG12025)	Awareness Building and Behavior Modification	Sedentary Individuals
14. The Stanford Nutrition Action Program (SNAP) Designed to promote healthy dietary habits. (1997) NHLBI (Grant number: HL46782)	Behavior Modification	Low Literate Individuals

15. Utilizing the Church and Church Members for Conducting Weight Loss Programs Designed to promote healthy dietary habits and increase physical activity. (2005) USDA/ARS (Grant number: Project No. 6251-53000-003-00D)	Behavior Modification	Overweight/Obese Individuals
16. Wheeling Walks Designed to increase physical activity among sedentary individuals. (2002) Robert Wood Johnson Foundation (Grant number: 039750)	Behavior Modification	Sedentary Individuals
17. Sunny Days Healthy Ways (Elementary and Middle School) Designed to increase awareness and promote sun protection behavior and practices among students. (2006) NCI (Grant Number CA23074)	Awareness Building and Behavior Modification	School Children
18. The E.P.A SunWise Program Designed to increase awareness and promote sun protection behavior and practices among K-8th grade students. (2002) EPA (Grant Number not available.)	Awareness Building and Behavior Modification	School Children
19. Sun Safe Designed to enhance and promote sun protective behaviors. (1998) NCI (Grant number: CA63029)	Awareness Building	Sun-exposed Individuals

GOAL #2: Improve access to culturally and linguistically competent, appropriate and effective cancer prevention, education, screening, diagnosis, treatment care and survivor services.

Evidence-Based Activities	Program Focus	Population Focus
1. Native FACETS Designed to examine cancer risk among Native Americans through tobacco use prevention and dietary modification. (1996) NCI (Grant number: CA52251)	Behavior Modification and Tobacco Use Prevention	Non-Smokers
2. Pathways to Health School-based cancer prevention and health promotion program for 5th and 7th grade American Indian students. (1995) NCI (Grant number: CA52283)	Tobacco Use Prevention	School-Age Children
3. Programa Latino para Dejar de Fumar (Latino Program to Stop Smoking) A Spanish-language self-help guide for smokers who want to quit. (1997) NCI (Grant number: CA39260) , AHRQ (Grant number: HS077373)	Smoking Cessation	Current Smokers
4. Critical Illness Evidence-based Nutrition Practice Guideline Chicago (IL): American Dietetic Association (ADA); 2006 Sep. NGC Guideline Number 6620. Provides medical nutrition therapy (MNT) guidelines for nutrition of the critically ill to enhance delivery and reduce complications.	Nutrition	Community
5. Oncology Evidence-based Nutrition Practice Guideline Chicago (IL): American Dietetic Association (ADA); 2007 Oct. NGC Guideline Number 6621. Provides medical nutrition therapy (MNT) guidelines aimed at managing symptoms, preventing weight loss and maintaining optimal nutritional status during cancer treatment.	Nutrition	Community

GOAL #3: Improve the quality of life for New Mexicans living with cancer throughout the cancer journey.

Evidence-Based Activities	Program Focus	Population Focus
1. Bright IDEAS: Problem-Solving Skills Training Designed to help reduce the emotional distress in mothers of children recently diagnosed with cancer. (2005) NCI (Grant number: ca65520)	Psychosocial - Coping	Caregivers
2. Coping with Chemotherapy Designed to enhance the quality of life of individuals prior to undergoing chemotherapy. (2002) NCI (Grant number: CA70875)	Psychosocial - Coping	Cancer Survivors
3. Dyadic Support for Men with Prostate Cancer Designed to enhance the quality of life of individuals diagnosed with prostate cancer. (2007) NCI (Grant number: CA96204)	Social Support	Men
4. Effects of Psychosocial Treatment on Cancer Survivorship Designed to help individuals enhance their skills for coping with breast cancer. (2007) NIMH (Grant number: MH47226)	Psychosocial - Coping	Women
5. Family-based Interventions (The FOCUS Program) for Men with Prostate Cancer and their Spouses/Partners Designed to enhance the quality of life of individuals diagnosed with prostate cancer and their caregivers during all phases of the illness. (2007) NCI (Grant number: R01CA090739)	Psychosocial - Coping	Caregivers and Men
6. Managing Uncertainty Day-to-Day Designed to help individuals enhance their skills for coping with the uncertainty of the recurrence for cancer. (2005) NCI (Grant number: CA78955)	Psychosocial - Coping	Cancer Survivors
7. Surviving Cancer Competently Intervention Program (SCCIP) Designed to help individuals enhance their skills for coping with cancer. (2004) NCI (Grant number: CA63930)	Social Support	Men

GOAL #4: Ensure equal access to pain management, palliative care, complementary and alternative services with proven evidence based efficacy, and end of life services.

Evidence-Based Activities	Program Focus	Population Focus
1. World Health Organization. Cancer pain relief and palliative care: report of a WHO Expert Committee. Technical Report Series No. 804. 1990. WHO: Geneva.	Alternative and complementary medicine	Clinician
2. National Institutes of Health. Get the facts: What is complementary and alternative medicine? Bethesda, MD: National Institutes of Health, Center for Complementary and Alternative Medicine. Available at http://nccam.nih.gov/health/whatiscam/.	Alternative and complementary medicine	Clinician
3. Cooper RA and Stoflet SJ. Trends in the education and practice of alternative medicine clinicians. Health Affairs 1996;15(3):226–238.	Alternative and complementary medicine	Clinician

GOAL #5: Increase culturally and linguistically competent and effective education about appropriate screening services for the early detection and/or prevention of cancer among New Mexicans.

Evidence-Based Activities	Program Focus	Population Focus
1. Prevention Care Management Designed to help increase cancer screening among underserved women. (2006) NCI (Grant number: CA87776)	Awareness building and Behavior Modification	Medically Underserved
2. Project SAFe (Screening Adherence Follow-Up Program) Designed to improve follow-up among low-income, ethnic minority women with abnormal mammograms. (2007) CDC (Grant number: U57/CCU315111-01)	Behavior Modification	Adults
3. Woman to Woman Designed to increase breast cancer and cervical cancer screening in the worksite setting. (2001) NCI (Grant number: CA66038)	Awareness building and Behavior Modification	Un- and/or Under-screened Individuals

GOAL #6: Reduce the rates of cancers caused by social, economic, and physical environment factors.

Evidence-Based Activities	Program Focus	Population Focus
1. A New Way to Talk about Social Determinants of Health http://www.rwjf.org/vulnerablepopulations/product.jsp?id=66428	Awareness	Community
2. Promoting Health Equity: A Resource to Help Communities Address Social Determinants of Health www.cdc.gov/nccdphp/dach/chhep/pdf/SDOHworkbook.pdf	Awareness	Community
3. Division of Nutrition, Physical Activity, Nutrition, and Obesity Health Equity Resource Toolkit www.centertrt.org/content docs/Health_Equity/HealthEquityObesityToolkit_07_25_12_FINAL_508_compliant.pdf	Awareness	Community
4. Healthy People 2020: An Opportunity to Address Societal Determinants of Health in the U.S. www.healthypeople.gov/2020/about/advisory/SocietalDeterminantsHealth.pdf	Awareness	Community

GOAL #7: Reduce disparities and inequities in cancer incidence, morbidity, and mortality in New Mexico.

Evidence-Based Activities	Program Focus	Population Focus
1. Native FACETS Designed to examine cancer risk among Native Americans through tobacco use prevention and dietary modification. (1996) NCI (Grant number: CA52251)	Behavior Modification and Tobacco Use Prevention	Non-Smokers
2. Pathways to Health School-based cancer prevention and health promotion program for 5th and 7th grade American Indian students. (1995) NCI (Grant number: CA52283)	Tobacco Use Prevention	School-Age Children
3. Programa Latino para Dejar de Fumar (Latino Program to Stop Smoking) A Spanish-language self-help guide for smokers who want to quit. (1997) NCI (Grant number: CA39260) , AHRQ (Grant number: HS077373)	Smoking Cessation	Current Smokers

GOAL #8: Reduce disparities and inequities in access to appropriate and effective cancer prevention, screening, diagnosis, treatment, care and survivor services.

Evidence-Based Activities	Program Focus	Population Focus
1. Native FACETS Designed to examine cancer risk among Native Americans through tobacco use prevention and dietary modification. (1996) NCI (Grant number: CA52251)	Behavior Modification and Tobacco Use Prevention	Non-Smokers
2. Pathways to Health School-based cancer prevention and health promotion program for 5th and 7th grade American Indian students. (1995) NCI (Grant number: CA52283)	Tobacco Use Prevention	School-Age Children
3. Programa Latino para Dejar de Fumar (Latino Program to Stop Smoking) A Spanish-language self-help guide for smokers who want to quit. (1997) NCI (Grant number: CA39260) , AHRQ (Grant number: HS077373)	Smoking Cessation	Current Smokers

Evidence-Based Activities	Program Focus	Population Focus
1. Prevention Care Management Designed to help increase cancer screening among underserved women. (2006) NCI (Grant number: CA87776)	Awareness building and Behavior Modification	Medically Underserved
2. Project SAFe (Screening Adherence Follow-Up Program) Designed to improve follow-up among low-income, ethnic minority women with abnormal mammograms. (2007) CDC (Grant number: U57/CCU315111-01)	Behavior Modification	Adults
3. Woman to Woman Designed to increase breast cancer and cervical cancer screening in the worksite setting. (2001) NCI (Grant number: CA66038)	Awareness building and Behavior Modification	Un- and/or Under-screened Individuals

Additional Resources for Evidence-based Interventions in Clinical and Community Settings

Resources	Program Focus	Population Focus
AHRQ Health Care Innovations Exchange	Evidence-based innovations and tools suitable for a range of health care settings and populations.	Multiple/varied
National Guideline Clearinghouse	A public resource for evidence-based clinical practice guidelines.	Multiple/varied
The Cochrane Library	High-quality, independent evidence to inform healthcare decision-making,	Multiple/varied
National Comprehensive Cancer Network	Promotes the importance of continuous quality improvement and recognizes the significance of creating clinical practice guidelines appropriate for use by patients, clinicians, and other health care decision-makers.	Multiple/Varied

LIST OF ACRONYMS AND ABBREVIATIONS

AHRQ	Agency for Health Research and Quality
BBER	Bureau of Business and Economic Research at the University of New Mexico
BRFSS	Behavioral Risk Factor Surveillance System
CDC	Centers for Disease Control and Prevention
Council	New Mexico Cancer Council
CSDH	Commission on Social Determinants of Health, World Health Organization
FDA	Federal Drug Administration
HPV	Human Papilloma Virus
IBIS	Indicator-Based Information System for Public Health Web site, New Mexico Department of Health
NMDOH	New Mexico Department of Health
Pap	Papanicolaou Test (for cervical cancer)
SEER	Surveillance, Epidemiology and End Results program of the National Cancer Institute
UNM	University of New Mexico
USDA	United States Department of Agriculture

GLOSSARY OF TERMS

Assessment refers to the obligation of every public health agency to monitor the health status and needs of its community regularly and systematically. Assessment data are used to identify health problems and high-risk populations, and to inform disease prevention and control programs.

Assurance is the guarantee that agreed-upon, high-priority personal and community health services will be provided to every member of the community by qualified organizations.

Behavioral Risk Factor Surveillance System (BRFSS): A state-based system of health surveys that collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury.

Body Mass Index (BMI): A measure that relates body weight to height. BMI is sometimes used to measure total body fat and whether a person is a healthy weight. Excess body fat is linked to an increased risk of some diseases including heart disease and some cancers. Also called BMI.

Cancer: A term for diseases in which abnormal cells divide without control. Cancer cells can invade nearby tissues and can spread through the bloodstream and lymphatic system to other parts of the body. There are several main types of cancer. Carcinoma is cancer that begins in the skin or in tissues that line or cover internal organs. Sarcoma is cancer that begins in bone, cartilage, fat, muscle, blood vessels, or other connective or supportive tissue. Leukemia is cancer that starts in blood-forming tissue such as the bone marrow, and causes large numbers of abnormal blood cells to be produced and enter the bloodstream. Lymphoma and multiple myeloma are cancers that begin in the cells of the immune system.

Caregivers: Family members or friends who have assumed full care of a person living with cancer, on a temporary or permanent live-in basis.

Chemotherapy: Treatment with drugs that kill cancer cells.

Chronic diseases: Noncommunicable conditions, including cardiovascular diseases, diabetes, obesity, cancer and respiratory diseases, that are now the major cause of death and disability worldwide. A relatively few risk factors – high cholesterol, high blood pressure, obesity, smoking and alcohol – cause the majority of the chronic disease burden.

Clinical trial: A type of research study that tests how well new medical approaches work in people. These studies test new methods of screening, prevention, diagnosis, or treatment of a disease. Also called a clinical study.

Cultural competency: The application of a set of knowledge and attitudes that allows healthcare providers to work effectively with diverse racial, ethnic, and social groups.
Culturally competent providers have an understanding of the cultural differences that exist among their patients and are also aware of their own possible biases and the potential disparities that may result from those biases.

Incidence: The number of new cases of a disease diagnosed each year.

Morbidity: A disease or the incidence of disease within a population. Morbidity also refers to adverse effects caused by a treatment.

Mortality: The state of being mortal (destined to die). Mortality also refers to the death rate, or the number of deaths in a certain group of people in a certain period of time. Mortality may be reported for people who have a certain disease, live in one area of the country, or who are of a certain gender, age, or ethnic group.

Obesity: A condition marked by an abnormally high, unhealthy amount of body fat.

Overweight: Being too heavy for one's height. Excess body weight can come from fat, muscle, bone, and/or water retention. Being overweight does not always mean being obese.

Pap (Papanicolaou) Test: A procedure in which cells are scraped from the cervix for examination under a microscope. It is used to detect cancer and changes that may lead to cancer. A Pap test can also show noncancerous conditions, such as infection or inflammation. Also called a Pap smear.

Patient navigators: Trained, culturally sensitive, healthcare workers, survivors, or family members who help individuals address patient-access barriers to quality, standard cancer care.

Policy development refers to the responsibility of every public health agency to develop comprehensive policies that are based on available knowledge and are responsive to communities' health needs. Policy development includes setting priorities and mobilizing resources to serve the common good.

Prevalence: The proportion of a specified population with a specified condition at a given point in time.

Prevention: In medicine, action taken to decrease the chance of getting a disease or condition.
For example, cancer prevention includes avoiding risk factors (such as smoking, obesity, lack of exercise, and radiation exposure) and increasing protective factors (such as getting regular physical activity, staying at a healthy weight, and having a healthy diet).

Primary prevention emphasizes keeping the population healthy by preventing or reducing the risks for developing disease. Immunizations, promoting healthy diets, avoiding tobacco use and increasing physical activity are all examples of primary prevention activities.

Risk factor: Something that may increase the chance of developing a disease. Some examples of risk factors for cancer include age, a family history of certain cancers, use of tobacco products, certain eating habits, obesity, lack of exercise, exposure to radiation or other cancer-causing agents, and certain genetic changes.

Screening: Checking for disease when there are no symptoms.

Secondary prevention is the identification and early treatment of disease. Screening programs are designed to reach those individuals most susceptible to developing the disease before the disease has advanced. Examples from cancer prevention are the Pap test to screen for cancer of the cervix, the mammogram to screen for breast cancer, and fecal occult blood testing to screen for colorectal cancer. Ideally, broad-based screening programs target diseases that can be diagnosed at early stages and for which effective treatments are available.

Side effect: A problem that occurs when treatment affects healthy tissues or organs. Some common side effects of cancer treatment are fatigue, pain, nausea, vomiting, decreased blood cell counts, hair loss, and mouth sores.

Stroke: In medicine, a loss of blood flow to part of the brain, which damages brain tissue. Strokes are caused by blood clots and broken blood vessels in the brain. Symptoms include dizziness, numbness, weakness on one side of the body, and problems with talking, writing, or understanding language. The risk of stroke is increased by high blood pressure, older age, smoking, diabetes, high cholesterol, heart disease, atherosclerosis (a build-up of fatty material and plaque inside the coronary arteries), and a family history of stroke.

Survivorship: In cancer, survivorship covers the physical, psychosocial, and economic issues of cancer, from diagnosis until the end of life. It includes issues related to the ability to get health care and follow up treatment, late effects of treatment, second cancers, and quality of life.

Tertiary prevention affects individuals with established disease. It emphasizes delaying advancement of the disease, reducing the risks for complication or recurrence, prolonging life and promoting quality of life. Unlike primary and secondary prevention activities, tertiary prevention addresses the needs of individuals rather than population groups.

Definitions in this glossary are from the National Cancer Institute, the Centers for Disease Control and Prevention, and the World Health Organization. The National Cancer Institute's dictionary of cancer terms is available online at www.cancer.gov/dictionary.

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