

Oklahoma State Plan for a Coordinated Approach to Chronic Disease Prevention and Health Promotion

Moving forward together for a healthier Oklahoma

The purpose of the state plan is to identify the chronic disease-related goals, strategies, and objectives that support the priorities identified in the Oklahoma Health Improvement Plan and to focus efforts and limited resources on evidence-based or practice-based strategies with significant reach to impact chronic disease burden.

Developed
5/30/2012
Finalized
6/18/2013

Background

In 2009, the Oklahoma Health Improvement Planning team, composed of local and state health leaders, developed the Oklahoma Health Improvement Plan (OHIP) to address key issues that have kept Oklahoma ranked near the bottom of all states in important health status indicators. The comprehensive plan calls for a focus on three flagship initiatives: 1) children’s health improvement, 2) obesity reduction, and 3) tobacco use prevention; also, the plan identified four state health infrastructure opportunities: 1) public finance; 2) workforce development; 3) access to care; and 4) health system effectiveness. OHIP serves as a key strategic tool for use with legislative leaders in framing policy and budgetary priorities and for prioritizing public health resources, services, and partnerships.

Continual outreach and listening to our partners, communities, and people set the stage for building local support for health improvement activities. OHIP and its community engagement process are dynamic with recurrent review of goals and objectives to assess our progress and to adjust the course. Work groups, established for each flagship initiative and each infrastructure opportunity, facilitate the planning, action, and review process. The work groups are active public/private partnerships that build upon the existing health infrastructure to gain a broader base of support and action.

OHIP recognizes that the state has many health care needs, each supported by its own individual constituency, and recommends addressing priorities identified as leading causes of both mortality and morbidity in the state. OHIP challenges each work group to focus on critical, select implementation strategies. Other work groups have begun their work to support OHIP in the flagship initiatives of children’s health, obesity reduction, and tobacco use prevention. The flagship initiatives’ objectives that are supportive of the coordinated chronic disease prevention and health promotion approach are located in the appendices. The *Oklahoma State Plan for a Coordinated Approach to Chronic Disease Prevention and Health Promotion* does not duplicate the objectives or efforts of these teams, but works in tandem and in concert, primarily with the access to care work group. This document represents the coordinated efforts of chronic disease programs, coalitions, and partners as they look forward to implementing key strategies to develop the comprehensive approach to support OHIP and its vision of a healthier Oklahoma.

Introduction

Oklahoma ranks poorly in multiple key health status indicators.

According to the United Health Foundation’s *America’s Health Rankings (2011)* and the *State of the State’s Health Report (2011)*, Oklahoma has: high prevalence of smoking, limited availability of primary care physicians, high rate of preventable hospitalizations, many self-reported poor mental and physical health days, high prevalence of obesity, and high rate of deaths from cardiovascular disease. Chronic lower respiratory diseases and lung cancer continue to affect Oklahoma at higher than national average rates, primarily because of Oklahoma’s high use of cigarettes. There are those for whom the outlook is even more grim.

Race and Ethnicity

- Health disparities data show obesity is more prevalent among non-Hispanic American Indians than non-Hispanic whites.
- For both heart disease and stroke disease deaths, there is great disparity among blacks and American Indians when compared to other ethnic groups.
- The stroke death rate for non-Hispanic blacks is 40 percent higher than non-Hispanic whites and almost 170 percent higher than Hispanics.

Chronic diseases are among the top 10 leading causes of death in Oklahoma:

1. **Heart disease**
2. **Cancer**
3. **Chronic lung disease**
4. Accidents
5. **Stroke**
6. **Diabetes**
7. **Alzheimer’s disease**
8. Influenza and pneumonia
9. **Kidney disease**
10. Suicide

Source: OK2Share, Vital Statistics, Standard Reports, All Deaths, 2009.

- Non-Hispanic blacks and non-Hispanic American Indians have higher diabetes mortality rates than non-Hispanic whites.
- Minority populations report a higher prevalence of diabetes than whites.
- Non-Hispanic American Indians and blacks have a slightly higher rate of asthma than non-Hispanic whites.
- Rates of cancer diagnosis increased among all races, but remained the highest among American Indians.

Age

- Older adults (age 55+) have significantly higher rates of diabetes and cancer than younger age groups, and between 36 to 40 percent report no physical activity in the past thirty days.
- For strokes, seniors (age 65+) have a rate much higher than other age groups.
- People over the age of 50 years with chronic lower respiratory disease are more likely to be considered disabled.
- Seniors (age 65+) have much higher rates of death due to diabetes.
- The highest rate of preventable hospitalization occurs among patients 75 years of age and older.

Gender

- The rate of death due to heart disease was 49 percent higher among men than women in Oklahoma.
- Men had higher diabetes mortality than women.
- Women had significantly higher prevalence of asthma than men.
- Rates of cancer diagnosis were much higher among men than women.
- Cancer death rates were 53 percent higher among men than women.

Rural/Urban

- Central Oklahoma had the lowest overall death rate.
- Diabetes death rates were highest in the southwest region of Oklahoma.
- The prevalence of diabetes was higher among people living in the eastern part of the state.

Income/Education

- Adults with lower annual household incomes or less education tended to report higher prevalence of diabetes.
- Positive perceptions of health were also most common among those with a household income of \$50,000+ and college graduates.
- Having a usual source of care was more common as income and education increased.
- Oklahoma’s uninsured rates improved as age, income, and education levels increased.

Chronic diseases such as heart disease, cancer, asthma, stroke, and diabetes are the leading causes of disability and death in Oklahoma. These diseases accounted for nearly three of every four deaths in 2009 (Table 1). The mortality caused by chronic disease is the proverbial “tip of the iceberg.” For every chronic disease related death, there were many more individuals hospitalized.

Table 1. Number and Percentage of All Deaths and Years of Potential Life Lost (YPLL) before age 75 for Selected Chronic Diseases, Oklahoma, 2009.

Cause of Death	Number of Deaths	Percent of all Deaths	YPLL
Heart disease	9,201	29.6	54,499
Cancer	7,639	24.6	60,800
Chronic lung disease (including asthma)	2,597	8.4	13,897
Stroke	1,960	6.3	8,830
Diabetes	1,142	3.7	8,814

Source: OK2SHARE, Vital Statistics, All Deaths, 2009.

In Oklahoma, acute care hospitals (excluding federal and tribal facilities) are required to submit data on all inpatient discharges for the use in public health planning, legislation, and policy development. Using the hospital inpatient discharge data, the number of discharges, total days of stay, and total charges for chronic diseases can be studied. Table 2 provides the number of hospital inpatient discharges, length of inpatient stay in days, and total charges for a select few chronic diseases for 2010.

Table 2. Hospital Inpatient Discharges, Length of Stay (Days), and Charges for Selected Chronic Diseases, Oklahoma, 2010.

Primary Diagnosis	Number of Discharges	Total Days of Stay	Total Charges
Heart disease	46,774	194,147	\$2,129,471,681
Stroke	12,226	55,592	\$391,586,111
Cancer	11,957	79,145	\$638,881,297
Diabetes	6,616	32,143	\$164,840,264
Asthma	4,618	15,756	\$74,414,820

Source: OK2SHARE, Hospital Inpatient Discharge, 2010.

Table 2 provides the number of hospital inpatient discharges, length of inpatient stay in days, and total charges for a select few chronic diseases for 2010.

Just five chronic diseases, heart disease, cancer, stroke, diabetes, and asthma accounted for more than 82,000

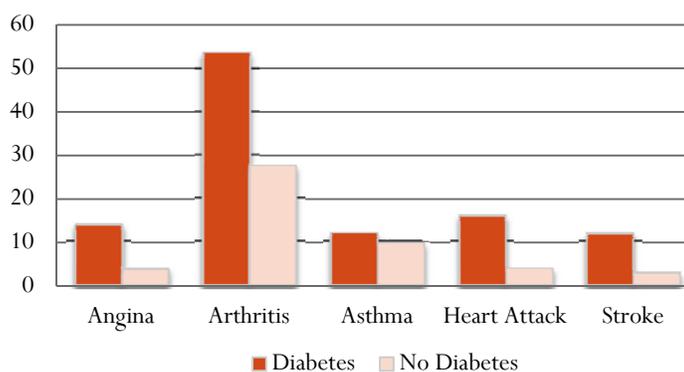
inpatient stays accumulating in more than 375,000 days of inpatient hospital stay at a cost of nearly \$3.4 billion dollars. The charges for in-patient heart disease discharges alone totaled a staggering \$2 billion dollars. Table 2 provides a glimpse of inpatient discharges for the leading chronic diseases and vividly illustrates the costly nature of chronic disease. While a number of individuals are hospitalized each year, even more individuals spent years of diminished healthy life because of the severity and duration of chronic diseases.

The Oklahoma Behavioral Risk Factor Surveillance Survey (BRFSS) provides insight to the burden of chronic diseases that Oklahomans carry in their everyday lives. In 2009, many of the 2.7 million adults in Oklahoma reported being diagnosed with chronic disease: diabetes (11%), asthma (10%), angina (5%), heart attack (5%), and stroke (4%).

BRFSS also provides insight to the distribution of chronic disease in the population. Figure 1 compares the presence of other chronic diseases among those ever diagnosed with diabetes and those who have never been diagnosed with diabetes. A greater proportion of those with diagnosed diabetes had other chronic diseases compared to those who did not have diabetes. Many times persons will have more than one chronic disease or condition. While some of the co-existence of chronic diseases is based in either heredity or in disease process, much can be attributable to the presence of common risk factors. Additionally, chronic diseases can cause serious health complications, such as vision loss, kidney failure, and amputations of legs or feet related to diabetes.

Many risk factors have been identified as increasing the risk for chronic disease. Some of these, such as advancing age, family history, and gender are outside of the individual’s control. However, other risk factors can be modified, changed, to decrease the risk of chronic disease or the complications associated with chronic disease. Tobacco use/exposure,

Figure 1. Percentage of Chronic Disease Among Those with and without Diabetes, Oklahoma, BRFSS, 2009.



Determinants of Health and Their Contributions to Premature Death

- Behavioral patterns – 40%
- Genetic predisposition – 30%
- Social circumstances – 15%
- Health care – 10%
- Environmental exposures – 5%

Source: Schroeder SA. “We Can Do Better – Improving the Health of the American People” N Engl J Med 2007;357:1221-1228.

physical inactivity, poor nutrition, and obesity are common risk factors for many chronic diseases and associated complications.

Table 3. Selected Chronic Diseases and Shared Modifiable Risk Factors.

	Heart Disease	Cancer	Lung Disease	Stoke	Diabetes and Complications
Tobacco use and secondhand smoke	+	+	+	+	+
Alcohol use	+	+		+	
High cholesterol	+			+	
High blood pressure	+			+	
Poor nutrition	+	+		+	+
Physical inactivity	+	+		+	+
Obesity	+	+		+	+

Source: Remington PL, Brownson RC, and Wegner MV, Chronic Disease Epidemiology and Control, 3rd Edition, 2010, p.6

While causing major limitations in daily living and leading to high costs of health care, the majority of chronic diseases are preventable. Reducing or preventing tobacco use, poor diet, and physical inactivity can prevent or delay disease onset or disease complications. Modifiable risk factors for some chronic diseases are not known; however, early detection through screening can promote treatment and lessen complications, disability, and risk of death. Intervention strategies focused on common risk factors can prevent or delay multiple chronic diseases, but must be implemented with a long-term perspective and sustained effort.

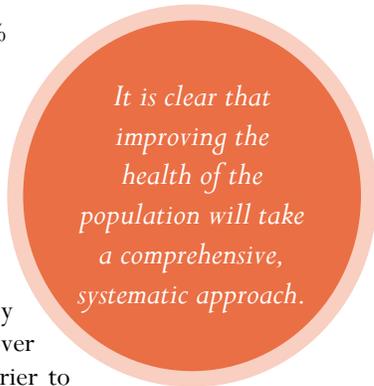
Among Oklahomans, there is a high prevalence of the modifiable risk factors common to the leading chronic diseases. BRFSS findings highlight that many of these chronic conditions or health behaviors are present among the 2.7 million adults in Oklahoma.

- High blood pressure - 35%
- High cholesterol - 40%
- Smoking - 26%
- Obese - 32%
- Overweight - 35%
- No leisure time physical activity - 31%
- Less than 5 fruit/vegetables a day - 85%
- Heavy or chronic alcohol use - 3.5%

Some adults in Oklahoma participate in preventive services. The 2008 and 2009 BRFSS surveys indicate that

- Cholesterol checked within the past 5 years – 75%
- Sigmoidoscopy or colonoscopy ever (adults 50 years and over) – 59%
- Take an aspirin daily or every other day (men 40 years and over) – 43%
- Take an aspirin daily or every other day (women 50 years and over) – 44%
- Mammogram in the past 2 years (women 40 years and over) – 69%
- PAP test in past 3 years (women 18 years and over) – 81%
- PSA cancer screening test in past 2 years (men 40 years and over) – 54%

Others experience barriers to care. BRFSS results show that one in every five Oklahomans reported that they do not have a personal doctor or health care provider (22.4%), ranging from 6.7% among those over 64 years of age to 38.6% among 18-34 year olds. Likewise, one in every five Oklahomans reported that they do not have any health care coverage (19.8%), ranging from 1.6% among those over 64 years to 34.5% among those 18-34 years of age. Cost was reported as a barrier to seeing a health care professional especially among those who were 18-34 years of age (25.3%) compared to those 35-64 years (19%) and those 65 years and older (4.4%).



Approach

OHIP and the *Oklahoma State Plan for a Coordinated Approach to Chronic Disease Prevention and Health Promotion* are anchored on the principles of the socio-ecological model and the social determinants of health. A comprehensive and coordinated approach in planning and continuing efforts focus on the following facts:

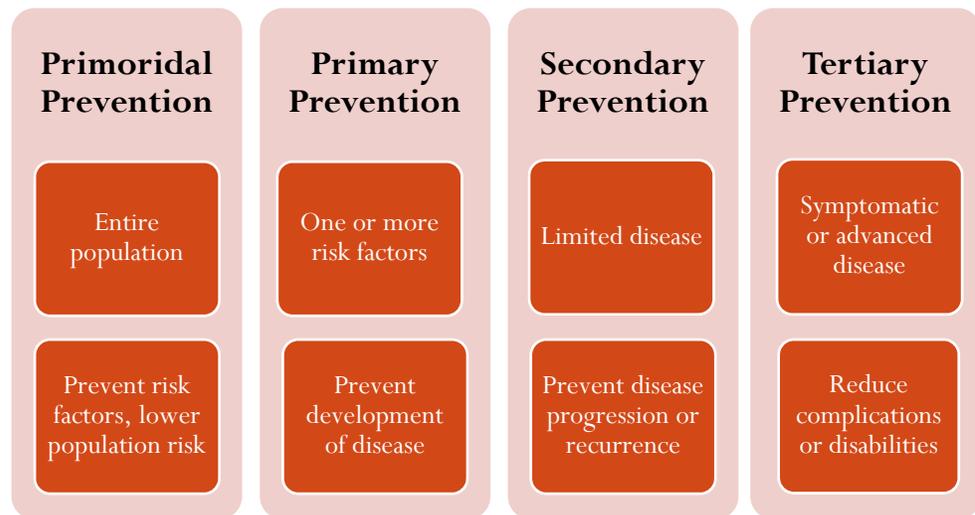
- Persons are likely to have more than one chronic condition;
- Many chronic diseases have modifiable risk factors in common (tobacco use/exposure, physical inactivity, poor nutrition, and obesity);
- The same populations that are at risk for one chronic disease are often at risk for other chronic diseases;
- The same intervention strategies can address multiple chronic diseases and risk factors;
- Social determinants of health impact chronic disease conditions;
- Chronic disease services and programs fulfill a public health role of the agency; and
- Prevention, detection, and treatment occur under systems that are not unique to one condition.

Comprehensive and coordinated approaches across programs, initiatives, and efforts are critical for reducing the burden of chronic disease. The approach lends to the prevention, delay, detection, and control of chronic diseases. Strategies work across all levels of the socio-ecological model as illustrated on the strategic map. In addition, consideration was given to the nature of chronic disease:

- Prolonged duration,
- Not resolving spontaneously,
- Rarity of completely being cured,
- Cumulative effect of exposure over a lifetime, and
- Complex etiology.

Chronic disease prevention and health promotion is rooted in elimination of exposures to risks, modification of risk factors, early detection of clinical signs or chronic diseases in their earliest stages, and the treatment and management of chronic diseases and their debilitating complications.

Figure 4. Classification Schema for Chronic Disease Prevention and Control Methods.



(Figure 4). The uniqueness of this schema is the addition of primordial prevention, which is health promotion among the entire population that is aimed at maintaining and broadening the health and well-being of the population.

The top row indicates prevention strategy (primordial, primary, secondary, and tertiary prevention). The middle row indicates the population's disease status (entire population, those with risk factors, those with limited disease, and those with advanced disease or disability). The bottom row identifies the effects that would be expected (prevent risk factors, prevent disease development, prevent disease progression, and reduce complications or disabilities). Working together, the OHIP groups will span the prevention spectrum.

Solutions

Together, two sources identify strong evidence-based interventions that span across the prevention spectrum - The Guide to Community Preventive Services (Community Guide) and the Guide to Clinical Preventive Services. The Community Guide is a resource for evidence-based recommendations and findings about what works to improve public health and is based on a scientific systematic review process. The Guide to Clinical Preventive Services contains the U.S. Preventive Services Task Force (USPSTF) recommendations on the use of screening, counseling, and other preventive services that are typically delivered in primary care settings. The recommendations are based on systematic reviews of the evidence related to the benefits and potential harms of clinical preventive services. Interventions in the clinical and community settings can support and reinforce each other.

Community Preventive Services

Recommendations excerpted from The Community Guide

ASTHMA	
Home-Based Multi-Trigger, Multi-Component Interventions	
Children and Adolescents	Home-based multi-trigger, multi-component interventions with an environmental focus for persons with asthma aim to reduce exposure to multiple indoor asthma triggers (allergens and irritants). These interventions involve home visits by trained personnel to conduct two or more environmental (home assessment/education/remediation) and non-environmental (self-management education/social services/coordinated care) activities.
CANCER	
Group Education	
Cancer Screening: - Breast	Group education conveys information on indications for, benefits of, and ways to overcome barriers to screening with the goal of informing, encouraging, and motivating participants to seek recommended screening. Group education is usually conducted by health professionals or by trained laypeople who use presentations or other teaching aids in a lecture or interactive format, and often incorporate role modeling or other methods. Group education can be given to a variety of groups, in different settings, and by different types of educators with different backgrounds and styles.
One-on-One Education	
Cancer Screening: - Breast - Cervical - Colorectal (Fecal Occult Blood Test - FOBT)	One-on-one education delivers information to individuals about indications for, benefits of, and ways to overcome barriers to cancer screening with the goal of informing, encouraging, and motivating them to seek recommended screening. These messages are delivered by healthcare workers or other health professionals, lay health advisors, or volunteers, and are conducted by telephone or in person in medical, community, worksite, or household settings. Small media (e.g., brochures) and/or client reminders often accompany one-on-one education.
Client Reminders	
Cancer Screening: - Breast - Cervical - Colorectal (FOBT)	Client reminders are written (letter, postcard, email) or telephone messages (including automated messages) advising people that they are due for screening. Client reminders may be enhanced by follow-up printed or telephone reminders; additional text or discussion with information about indications for, benefits of, and ways to overcome barriers to screening, and/or assistance in scheduling appointments.
Reducing Structural Barriers	
Cancer Screening: - Breast - Colorectal (FOBT)	Structural barriers are non-economic burdens or obstacles that make it difficult for people to access cancer screening. Interventions designed to reduce these barriers may facilitate access to cancer screening services by reducing time or distance for service delivery; modifying hours of service; offering services via mobile mammography vans at worksites or in residential communities; and simplifying or eliminating administrative procedures and other obstacles.

Often includes supporting measures, such as printed or telephone reminders; education about cancer screening; information about screening availability (e.g., group education, pamphlets, or brochures); and measures to reduce out-of-pocket costs (see below).

Reducing Out-of-Pocket Cost

Cancer Screening - Breast Interventions to reduce client out-of-pocket costs attempt to minimize or remove economic barriers that make it difficult for clients to access cancer screening services. Costs can be reduced through a variety of approaches, including vouchers, reimbursements, reduction in co-pays, or adjustments in federal or state insurance coverage. Efforts to reduce client costs may be combined with measures to provide client education, information about program availability, or measures to reduce structural barriers.

Provider Assessment and Feedback

Cancer Screening - Breast Provider assessment and feedback interventions both evaluate provider performance in delivering or offering screening to clients (assessment) and present providers with information about their performance in providing screening services (feedback). Feedback may describe the performance of a group of providers (e.g., mean performance for a practice) or an individual provider, and may be compared with a goal or standard.

Provider Reminder & Recall Systems

Cancer Screening - Breast Education Reminders inform health care providers it is time for a client’s cancer screening test (called a “reminder”) or that the client is overdue for screening (called a “recall”). The reminders can be provided in different ways, such as in client charts or by e-mail.

Primary School Settings - Skin Cancer Interventions in primary school settings are designed to increase sun-protective knowledge, attitudes, and intentions, and affect behavior among children from kindergarten through eighth grade. The interventions focus on some combination of increasing application of sunscreen, scheduling activities to avoid peak sun hours, increasing availability of shade and encouraging children to play in shady areas, and encouraging children to wear sun-protective clothing.

Outdoor Recreation Settings - Skin Cancer Interventions in recreational or tourism settings are designed to increase sun-protective knowledge, attitudes, and intentions, and affect behaviors among adults and children. Interventions may include educational brochures (e.g., culturally relevant materials, photographs of skin cancer lesions); sun-safety training for, and role modeling by, lifeguards, aquatic instructors, and recreation staff; sun-safety lessons, interactive activities, and incentives for parents and children; increasing available shaded areas; provision of sunscreen; and point-of-purchase prompts.

Multi-Component Community-Wide Interactions

Skin Cancer Multi-component community-wide interventions to prevent skin cancer use combinations of individual-directed strategies, mass media campaigns, and environmental and policy changes across multiple settings within a defined geographic area (city, state, province, or country), in an integrated effort to influence UV-protective behaviors. They are usually delivered with a defined theme, name, logo, and set of messages. Programs vary substantially in duration and the breadth of included components.

CARDIOVASCULAR DISEASE

Team-Based Care to Improve Blood Pressure Control

Team-based care interventions typically include activities to facilitate communication and coordination of care support among various team members; enhance use of evidence-based guidelines by team members; establish regular, structured follow-up mechanisms to monitor patients' progress and schedule additional visits as needed; and actively engage patients in their own care by providing them with education about hypertension medication, adherence support (for medication and other treatments), and tools and resources for self-management (including health behavior change).

DIABETES	
Case Management Interventions to Improve Glycemic Control	
Healthcare System Level	Case management involves planning, coordinating, and providing healthcare for those affected by diabetes. It is directed to people who are likely to have to use too much of their income to pay for related healthcare services, who are not receiving those services that give them the best chance to stay healthy, or who are receiving services that are not well coordinated with one another. There also is sufficient evidence of improved provider monitoring of glycated hemoglobin (GHb) when case management was delivered in combination with disease management.
Disease Management Programs	
Healthcare System Level	Disease management is an organized, proactive, multi-component approach to healthcare delivery for people with a specific disease, such as diabetes. Care is focused on and integrated across the spectrum of the disease and its complications, the prevention of comorbid conditions, and the relevant aspects of the delivery system. Disease management identifies all clients or patients affected by the disease and determines the most effective ways to treat the disease. The diabetes disease management based on strong evidence of effectiveness in improving glycemic control; provider monitoring of glycated hemoglobin (GHb); and screening for diabetic retinopathy. Sufficient evidence is also available of its effectiveness in improving provider screening of the lower extremities for neuropathy and vascular changes; urine screening for protein; and monitoring of lipid concentrations.
Self-Management Education	
Community Gathering Places - Adults with Type 2 Diabetes	Diabetes self-management education (DSME) is the process of teaching people to manage their diabetes. The goals of DSME are to control the rate of metabolism (which affects diabetes-related health), to prevent short- and long-term health conditions that result from diabetes, and to achieve for clients the best possible quality of life, while keeping costs at an acceptable level. DSME interventions be implemented in:
Home – Children and Adolescents with Type 1 Diabetes	<ul style="list-style-type: none"> • Community gathering places on the basis of sufficient evidence of effectiveness in improving glycemic control for adults with Type 2 diabetes and • Homes of children and adolescents who have Type 1 diabetes based on sufficient evidence of effectiveness in improving glycemic control among adolescents with Type 1 diabetes.

Clinical Practices Guidelines

A and B Grade Recommendations excerpted from the Guide to Clinical Preventive Services

SERVICES	
Risk Assessment	
Breast and Ovarian Cancer	Women whose family history is associated with an increased risk for deleterious mutations in BRCA 1 or BRCA 2 genes.
Screening	
Breast Cancer	Mammography, with or without clinical breast examination, every 1-2 years for women aged 40 or older and every two years for women aged 50 to 74 years.
Cervical Cancer	Screening, every 3 years for women, who have a cervix, aged 21-65 years or women aged 30-65 years who want to lengthen the screening interval to every 5 years with the addition of human papillomavirus (HPV) testing.

Colorectal Cancer	FOBT, Sigmoidoscopy, or colonoscopy for adults beginning at age 50 and continuing until age 75.
Blood Pressure	All adults aged 18 or older.
Lipid Disorders	Men aged 35 and older or aged 20-35 years if at increased risk for heart disease. Women aged 45 and older if at increased risk for heart disease or 20-45 if at risk.
Abdominal Aortic Aneurysm	One-time screening by ultrasonography in men aged 65-75 who have ever smoked.
Diabetes	Asymptomatic adults with sustained blood pressure (either treated or untreated) greater than 135/80 mm Hg.
Osteoporosis	Women aged 65 and older, and routine screening beginning at age 60 for women at increased risk for osteoporotic fractures.
Aspirin for Prevention	
Cardiovascular Disease	Men aged 45 to 79 years and women aged 55 to 79 years when potential benefit outweighs potential harm.
Screening and Behavioral Counseling	
Alcohol Misuse	All adults, including pregnant women.
Tobacco Use	All adults, including pregnant women.
Obesity	All adults and children 6 years and older.

Other Essentials

Preventive care practices and quality of care are essential but not sufficient in our war against chronic disease. Community and clinical preventive services focus on chronic disease and risk factor prevention, screening, detection, and management. However, more can and must be done.

If risk factors were eliminated, 40-80% of all heart disease, stroke, Type 2 diabetes, and cancer would be prevented (worldwide). The most effective models of eliminating risk factors focus on changing individual behaviors. Changing the conditions or context of the environment has the ability to influence more lives than trying to change behavior through individual medical intervention or education. For practitioners, this is a paradigm shift from focusing on individuals having to work at being healthy to individuals having to work at **not** benefiting from their healthy school, workplace, business, or community environment.

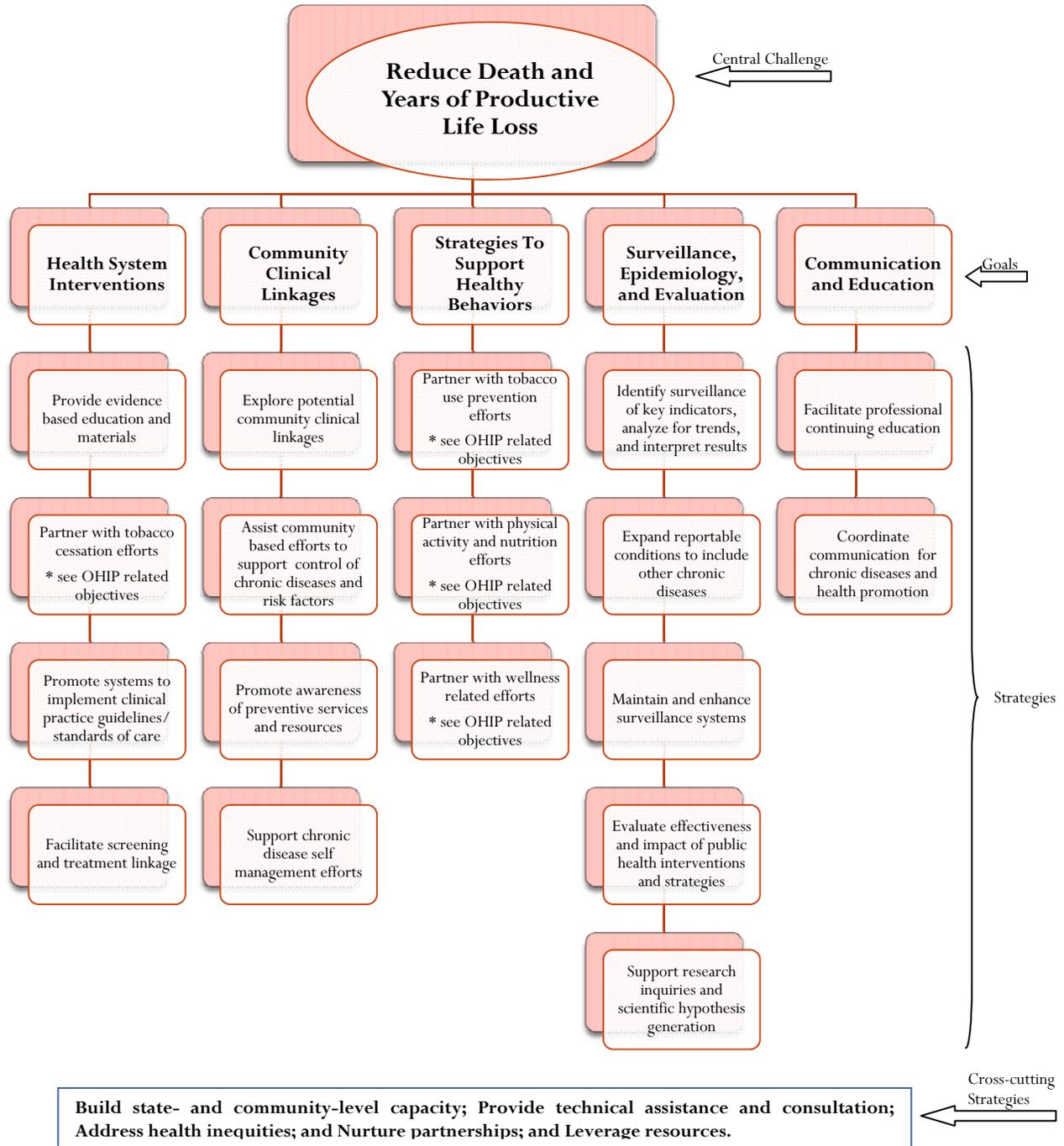
System and environmental change initiatives that make healthy choices available, accessible, and affordable will likely prove most effective in combating obesity and reducing tobacco use and exposure. Both the Centers for Disease Control and Prevention and the Institute of Medicine have developed recommended strategies for encouraging healthy eating, physical activity, and tobacco use prevention that include comprehensive approaches, including social and environmental changes through sustainable efforts.

Success is based both in evidence-based practices and in community ownership. Communities, coalitions, consortiums, and tribes plan and implement comprehensive, evidence-based interventions where they live (communities), work (workplaces and businesses), and learn (schools). The initiatives and strategies must work together within a socio-ecological framework, which recognizes that individuals, children, and families live their lives and make their choices within a set of social systems that are interconnected and dynamic and that impact health. Using this framework, physical and social environments are changed to have beneficial impacts on the health of the population.

Goals, Strategies, and Objectives

This document moves Oklahoma forward in addressing, in part, access to care. The strategic map outlines the overarching goals and strategies Oklahoma will use to address chronic disease prevention and health promotion.

Strategic Map for Coordinated Chronic Disease Prevention and Health Promotion



Overarching Goals

The selection of goals present an opportunity to integrate population health promotion, preventive health services, and the management of chronic disease. The goals broaden the chronic disease traditional approach of reducing the impact of those who have a disease to include supporting the entire population to be healthy and diminishing the development of secondary disease among those who have disease.

Health Systems Interventions

Health systems interventions involve making systematic changes to primary care practices and healthcare systems to improve the quality, efficiency, and effectiveness of patient care. Frameworks and models can be used to reorganize care delivery to improve patient outcomes and decrease potentially avoidable hospitalizations. Health systems interventions refocus the system's attention from reactive, acute care needs to proactive, preventive health needs. Interventions to redesign health systems include implementation components, such as:

- Use of evidence-based guidelines;
- Multidisciplinary teams;
- Electronic health records with clinical decision supports, registries, and reminders;
- Continuous quality improvement;
- Patient follow-up mechanisms;
- Patient treatment adherence supports;
- Patient self-management supports; and
- Restructuring of payments for screening and control, monitoring, counseling, lifestyle interventions, and self-management support provided by health care extenders.

Community-Clinical Linkages

Creating sustainable, effective linkages between the community setting and the clinical setting can improve access to care. The linkages are developed partnerships between organizations that share a common goal of improving the health of the community. Community-clinical linkages help ensure that people with or at risk of chronic disease have access to community resources that support the management of their conditions, make healthy choices, and develop abilities and confidence. Critical to this goal is the community-level partnerships that identify leverages between health care systems and community resources. Additionally, the efforts should focus interventions to reach disparate populations and to increase screenings to help find diseases at an early, often highly treatable stage. Chronic disease self-management support is just one example of a community-clinical linkage effort that assists those with chronic disease to manage their health on a day-to-day basis. Self management interventions can address many maintenance topics common to several chronic diseases:

- Quit tobacco use and secondhand smoke exposures;
- Be physically active;
- Maintain a healthy weight;
- Eat healthful foods;
- Obtain follow-up care with health care provider for recommended screenings, annual exams, and medical tests;
- Recognize certain signs or symptoms that merit medical attention;
- Knowledge of available resources for well-being, lifestyle changes, and support systems.

Strategies that Support and Reinforce Healthful Behaviors

Communities and citizens must redesign their environments to break the cycle of addiction, disease, disability, and premature death. Strategies that support and reinforce healthful behaviors are population-based, meaning they reach large numbers within the population and create sustainable changes and build environments that support healthy behaviors. To help those who want to become more active and eat well and be tobacco free, Oklahomans must intervene on many fronts to dismantle the environmental structure that support and promote the risk factors that lead

to chronic disease. Convening partners across government, business, education, and nonprofit sectors, community members can work together in sustained and expanded efforts to:

- Promote healthy food and physical activity environments and opportunities in schools;
- Promote healthy food and physical activity environments and opportunities in communities; and
- Promote healthy food and physical activity environments and opportunities in workplaces and businesses.
- Provide and promote tobacco cessation resources and an environment supportive of quitting for good.
- Prevent youth from starting tobacco use, decreasing the number of persons addicted to tobacco.
- Protect Oklahomans from secondhand smoke, including in workplaces, school, and public places.

Surveillance, Epidemiology, and Evaluation

Public health surveillance and epidemiology are essential tools to identify community health problems. Surveillance is a tool to estimate the health status and behavior of the populations. However, communicating the results as information for action brings value to the use of surveillance, epidemiology, and evaluation. Data provides decision-makers with information to develop, implement, improve, and demonstrate effectiveness of chronic disease prevention and health promotion goals, strategies, and objectives. Efficient and effective surveillance systems ensure the problems of public health importance and of health equity needs related to chronic diseases and risk factors are identified. The surveillance, epidemiology, and evaluation goal is inclusive of many diverse activities and outcomes:

- Collection and consolidation of pertinent data;
- Routine analysis and creation of reports;
- Feedback of information to those providing the data;
- Feed-forward data to more central levels;
- Guide public health policy and strategies;
- Understand/monitor the epidemiology of a condition to set priorities;
- Report data to document impact of an intervention or progress towards specified public health targets/goals; and
- Demonstrate outcomes through evaluation.

Communication and Education

A coordinated approach to educate, inform, and empower people about chronic disease prevention and health promotion will emphasize wellness and prevention. Main communication efforts will be in the mass media campaigns established with the brands of “Tobacco Stops With Me” and “Shape Your Future”. The established partnerships and leveraged resources provide leadership to promote changes that reinforce the seriousness of Oklahoma’s health crisis. Examples of additional communications and educational opportunities are:

- Sponsor public awareness campaigns to raise awareness about signs and symptoms of heart disease and stroke and the importance of calling 9–1–1 when such symptoms appear;
- Implement informational campaigns to educate the public that high blood pressure is a major modifiable risk factor for heart disease and stroke, and that having blood pressure checked is an important first step in identifying and controlling high blood pressure and reducing the risk of heart disease and stroke;
- Promote professional education and training programs on systems that support quality health care;
- Strengthen prevention efforts through increased awareness and education about risk factor and lifestyle changes that affect high blood pressure, high cholesterol, diabetes, cancer survivorship, and smoking;
- Increase awareness and knowledge of the seriousness of diabetes, its risk factors, and effective strategies for preventing complications associated with diabetes and preventing type 2 diabetes; and
- Increase awareness and use of chronic disease-related clinical preventive services among older adults who are highest risk.

Coordinated Chronic Disease Prevention and Health Promotion Objectives

OHIP Access to Care - Chronic Disease Objectives

Health Systems Interventions

By July 2013, identify evidence-based and best practice education resources and materials related to chronic disease management or chronic disease preventive services.

By January 2014, increase by 400 the number of screening and diagnostic services (breast, cervical, and colorectal cancers) among uninsured high-risk populations.

By July 2017, increase by five the number of health systems interventions to improve effective delivery of clinical and other chronic disease preventive services.

Community Clinical Linkages

By July 2014, reduce the rate of potentially preventable hospitalizations by 5%. (Baseline: 81.8 per 1,000 Medicare enrollees)

By December 2017, increase by five the number of sustainable community clinical linkages established in Oklahoma for the purpose of increasing specific populations' ability to manage their chronic disease.

Strategies to Support Healthy Behaviors

By January 2014, increase by three the number of collaborating strategies supportive of the Oklahoma Health Improvement Plan's Tobacco Use Prevention, Obesity Reduction, and Child Health Improvement objectives.

Surveillance, Epidemiology, and Evaluation

By July 2013, develop a coordinated chronic disease surveillance plan with identified key indicators.

By July 2014, increase to five the number of surveillance, epidemiology, and evaluation reports released to the public.

By July 2017, ensure the evaluation of major coordinated chronic disease demonstration projects, work realignment, and supportive approaches for increased efficiency and effectiveness.

By July 2017, expand reportable conditions to include chronic diseases in addition to cancer.

Communication and Education

By July 2014, implement mass communication strategies to increase use of chronic disease preventive clinical services.

By January 2015, improve the chronic disease-related knowledge and skills of health professionals by providing professional education opportunities.

Other Related OHIP Work Groups' Objectives

OHIP Obesity Reduction Objectives

By May 2010, mandate utilization of the School Health Index for assessment and action planning by each public school's site-based Healthy and Fit School Advisory Committee.

In order to implement the recommended strategies of Oklahoma's Physical Activity and Nutrition State Plan, OSDH will have available an online searchable inventory database identifying evidence-based or promising programs that address physical activity, nutrition, and obesity issues by June 2010.

By July 2010, develop and facilitate a multi-level surveillance and evaluation system to monitor implementation of the plan.

By October 2010, the Strong and Healthy Oklahoma Division of OSDH, in collaboration with Oklahoma Fit Kids Coalition and other stakeholders, will have developed the capacity to provide technical assistance, consulting, and training in the integration, coordination, and implementation of evidence-based or promising programs addressing physical activity, nutrition, and obesity in an effort to reduce cost and increase accessibility to those programs for schools and communities.

By May 2011, mandate health-related fitness testing in all public schools for all students.

By May 2012, pass legislation to provide financial incentives for grocery stores or farmers markets to locate in underserved communities.

By May 2013, pass legislation to ensure that the safety and mobility of all users of all transportation systems (pedestrians, bicyclists, drivers) are considered equally through all phases of state transportation projects and that not less than one percent of the total budget for construction, restoration, rehabilitation or relocation projects is expended to provide facilities for all users, including but not limited to, bikeways and sidewalks with appropriate curb cuts and ramps so that even the most vulnerable (children, those with disabilities, the elderly) can feel and be safe with the public right of way.

Note: Implementation dates set out in initial 2010-2014 Oklahoma Health Improvement Plan. Quarterly updates are posted at <<http://ohip.health.ok.gov>>.

OHIP Tobacco Use Prevention Objectives

By May 2010, extend state law to eliminate smoking in all indoor public places and workplaces, except in private residences; currently, Oklahoma state laws contain exceptions for certain workplaces.

By September 2010, fully implement evidence-based health communications mass media campaigns targeting youth and young adults according to Best Practices for Comprehensive Tobacco Control Programs.

By December 2011, increase compliance with laws and ordinances to prevent illegal sales of tobacco to youth to 90% from 82%. (December 2008)

Increase utilization of the Oklahoma Tobacco Helpline from 35,000 to 70,000 registered callers in State Fiscal Year 2014. (Baseline FY 2009)

Between 2010 and 2014, enact key public policy measures including repeal of all preemptive clauses in state tobacco control laws, prohibiting use of state driver's license information scans for marketing of tobacco products, and increasing taxes on tobacco products (indexed to at least the national average); Anticipate consequences and opportunities of new Food and Drug Administration (FDA) regulation of tobacco products as related to state-level legislative initiatives.

By January 2015, increase the number of hospitals, health care professionals, and community-based clinics that effectively implement the Public Health Service Clinical Practice Guideline for treating tobacco dependence.

By January 2015, increase tobacco-free properties at all workplaces including private businesses, state agencies (10% to 100%), tribal governments (from 5% to 50%), local governments (75%), hospitals (38% to 100%), school districts (from 29% to 100%), universities and colleges (16% to 100%), career tech centers (7% to 100%) and faith-based organizations. (Baseline June 2009)

By January 2015, increase the number of tribal nations that voluntarily adopt laws to eliminate commercial tobacco abuse in tribally-owned or -operated worksites, including casinos; currently no tribal nations in Oklahoma have adopted such 100 percent smoke-free workplace laws.

By January 2015, increase the proportion of multi-unit housing facilities (from 1% to 25%), homes (from 74% to 90%) and motor vehicles (from 69% to 80%) with voluntary smoke-free policies.

Note: Implementation dates set out in initial 2010-2014 Oklahoma Health Improvement Plan. Quarterly updates are posted at <<http://ohip.health.ok.gov>>.

OHIP Child Health Improvement Objectives

Access to Primary Care

By December 2014, 95% of children will have comprehensive health insurance coverage. (Source: 2009 US Census; Baseline: 87.4%)

By December 2014, the percentage of children who have at least one primary care provider visit in a year will increase to 90%. (Source: 2007 National Survey of Children's Health; Baseline: 83.5%)

By December 2014, increase to 60% the percent of children provided care through a medical home as defined by the American Academy of Pediatrics. (Source: 2007 National Survey of Children's Health; Baseline: 55.7%)

Immunization

By December 2012, develop a new immunization information system (OSIIS) that has full capacity for electronic data exchange.

By January 2013, implement strategies identified by community and state partners that optimize vaccinations by providers in both private and public settings.

By June 2013, enact legislation for statewide mandatory reporting of all childhood vaccinations to OSIIS.

By December 2013, increase the proportion of Oklahoma adolescent females aged 13-17 years that have completed three doses of HPV vaccines to 35%. (Source: CDC National Immunization Teen Survey; Baseline: Oklahoma 16.2%, U.S. average = 26.7%)

Oral Health

By June 2012, establish a state fluoridation plan that identifies strategies that will result in 75% of the population on public water systems receiving optimally fluoridated water. (Source: 2006 National Oral Health Surveillance System (NOHSS); Baseline: 73.4%)

By June 2012, reimburse primary care providers for delivery of preventive dental services such as fluoride varnishes.

By June 2013, modify laws and rules to expand the types of providers who can deliver preventive dental services such as sealants and fluoride varnishes in public settings.

By December 2012, develop strategies to have the capacity to provide technical assistance, consulting, and training in the integration, coordination, and implementation of evidence-based or promising programs addressing oral health and the prevention of dental diseases to professionals, parents, and caregivers.

Adolescent Health

By December 2013, increase school participation in state youth behavior survey data collection [YRBS, Oklahoma Prevention Needs Assessment (OPNA), Youth Tobacco Survey (YTS)] through a coordinated state-level approach that reduces burden and improves health outcomes for schools. (Source/Baseline: YRBS 2009- 86% school response rate, OPNA 2010-52% public school districts, YTS - 80% middle school response rate and 74% high school response rate)

By December 2014, the percentage of adolescents aged 12-17 who have at least one primary care provider visit in a year will increase to 80%. (Source: 2007 National Survey of Children's Health; Baseline: 77.9%)

Infant and Early Childhood Mental Health

By December 2014, increase by 10% annually the number of health care providers that are provided with effective interventions on infant and early childhood mental health development to assist them in identifying infant and early

childhood concerns. [Source: Documented number of health care providers at Infant and Early Childhood Mental Health (IECMH) and OSDH Child Guidance (CG) sessions; Baseline: 10]

By December 2014, increase the number of developmental/behavioral screenings in primary care practices by 10%. (Source: 2011 TOTS survey; Baseline: number available in 2012)

By December 2014, identify and implement strategies to increase by 25% the number of mental health providers serving infants, young children, their families and caregivers who achieve the Oklahoma Association for Infant Mental Health endorsement. (Source: FY 2010 OKAIMH; Baseline: 11 endorsed)

By December 2014, increase the percent of women screened for postpartum depression up to one year after the end of pregnancy by 25%. (Source: 2010 TOTS survey; Baseline number available in 2011)

Children/Youth Mental Health and Substance Abuse

By December 2011, identify strategies to increase the number of community-based services for detection and counseling for children/youth with substance abuse problems.

By December 2012, develop school and other community-based early intervention programs for detection and counseling for children/youth with substance abuse problems.

By June 2013, collect Oklahoma-specific data on the prevalence and unmet needs of children with mental health and substance abuse problems.

By December 2014, expand by 10% the number of children and youth in the state receiving outpatient substance abuse treatment services. (Source: 2010 data from ODMHSAS decision support system; Baseline: 3,638 for both Medicaid and ODMHSAS funding)

By December 2014, expand by 10% the number of children and youth receiving residential and inpatient substance abuse treatment services in the state. (Source: 2010 data from ODMHSAS decision support system; Baseline: 363 from ODMHSAS funding)

By December 2014, provide resources to expand the systems of care network statewide.

By June 2014, decrease the percent of youth who report current use of alcohol (in the last 30 days) by 3%. (Source: 2009 YRBS; Baseline: 39%)

Child Abuse and Neglect

By December 2012, increase the number of families served in evidence-based home visitation programs/teams across the state by 10% {e.g. Children First, Start Right, and Comprehensive Home-Based Services (CHBS)}. (Source: SFY 2009 Children First; Baseline: 4,590; Source: SFY 2010 Start Right; Baseline: 1,247; Source: SFY 2010 CHBS program; Baseline: 2,057 families).

Special Health Care Needs

By December 2014, increase to 51% the percentage of youth with special health care needs who received the services necessary to make transitions to all aspects of adult life, including adult health care, work, and independence. (Source: 2005/2006 National Survey of CSHCN; Baseline: 43.7%)

By December 2014, increase the percentage of children with special health care needs receiving coordinated, ongoing comprehensive care within a medical home by 20%. (Source: 2005/2006 National Survey of CSHCN; Baseline: 49.7%)

By December 2013, expand the number of counties that provide comprehensive coordinated services for CSHCN including dental, behavioral health, and medical services. (Baseline: 10 counties)

Crosscutting Goals

By December 2014, promote comprehensive health education in Oklahoma public schools grades K-12 in accordance with Priority Academic Student Skills (PASS) guidelines utilizing state adopted health education curriculum.

By December 2014, promote the CDC's Coordinated School Health Program model for grades K-12.

Future Actions

These recommended goals and strategies reflect near and long-term priorities that incorporate all levels of prevention activities for chronic disease prevention and health promotion. The *Oklahoma State Plan for a Coordinated Approach to Chronic Disease Prevention and Health Promotion* is a living document that will be monitored on a regular basis to ensure the active engagement of stakeholders in addressing recommended goals and objectives. OHIP will provide a scorecard by which the goals and objectives referenced in this plan can be measured.

Get Involved

Implementation of this plan is contingent on the active support and engagement of the many stakeholders involved in its development. Systems change along with community engagement is also critical to its success. Without the active involvement of local and state stakeholders, the goals of the *Oklahoma State Plan for a Coordinated Approach to Chronic Disease Prevention and Health Promotion* will not become a reality.

OHIP Planning Team

(Membership at time of State Plan development)

Tom Adelson, State Senator

Dr. Jenny Alexopoulos, Board Member, Oklahoma State Board of Health

Dr. Stephen Cagle, Chairperson, Oklahoma City-County Board of Health

Dr. Terry Cline, Commissioner, Oklahoma State Department of Health and Secretary of Health and Human Services

Dr. Doug Cox, State Representative

Gary Cox, Director, Oklahoma City-County Health Department

Brian Crain, State Senator

Dr. Bruce Dart, Director, Tulsa Health Department

Rick Ernest, Physician Manpower Training Commission

Mike Fogarty (retired), Chief Executive Officer, Oklahoma Health Care Authority

Dr. Patrick Grogan, Chairperson, Tulsa City-County Board of Health

Jeff Hamilton, Chair, Oklahoma Health Equity Campaign

Neil Hann, Chief, Community Development Service, Oklahoma State Department of Health

Rik Helmerich, Board Member, Tulsa City-County Health Department

Tom John, Chairman, Oklahoma City Area Inter-Tribal Health Board

Craig Jones, President, Oklahoma Hospital Association

Dr. Murali Krishna, President, Oklahoma State Board of Health

Kenneth LaRue, Transit Programs Manager, Oklahoma Department of Transportation

Marjorie Lyons, President, AARP Oklahoma

Dr. Mary Anne McCaffree, Professor of Pediatrics, OU College of Medicine

Robert McPherson, Director, Physical Education/Health, Oklahoma State Department of Education

Danny Morgan, State Representative

Dr. C. Michael Ogle, Oklahoma Osteopathic Association

Dr. Gary Raskob, Dean, College of Public Health, Oklahoma University Health Sciences Center

State Plan for a Coordinated Approach

Anne Roberts, Director of Legislative Affairs, Integris Health

Matt Robison, Vice President, Small Business and Workforce Development, State Chamber of Oklahoma

Greta Shepherd Stewart, Executive Director, Oklahoma Primary Care Association

Dennis Shockley, Executive Director, Oklahoma Housing Finance Agency

Barry Smith, Oklahoma State Board of Health

Scot Stirton, Public Member at Large

Tracey Strader, Executive Director, Tobacco Settlement Endowment Trust

Linda A. Terrell, (former) Executive Director, Oklahoma Institute for Child Advocacy

Ann Trudgeon, Executive Director, Oklahoma Developmental Disabilities Council

Terri White, Commissioner, Oklahoma Department of Mental Health and Substance Abuse Services

Dr. Stephen Young, Dean, College of Dentistry, Oklahoma University Health Sciences Center



For more information, contact:
Chronic Disease Service
Oklahoma State Department of Health
1000 NE 10th Street
Oklahoma City, OK 73117-1299
Phone 405.271.4072

This publication was issued by the Oklahoma State Department of Health, as authorized by Terry L. Cline, Ph.D, Commissioner, Secretary of Health and Human Services. **XXX** copies were printed in June 2013 at a cost of \$**XXX**. Copies have been deposited with the Publications Clearinghouse of the Oklahoma Department of Libraries. Funding provided by the Coordinated Chronic Disease Prevention and Health Promotion Cooperative Agreement with the Centers for Disease Control and Prevention.