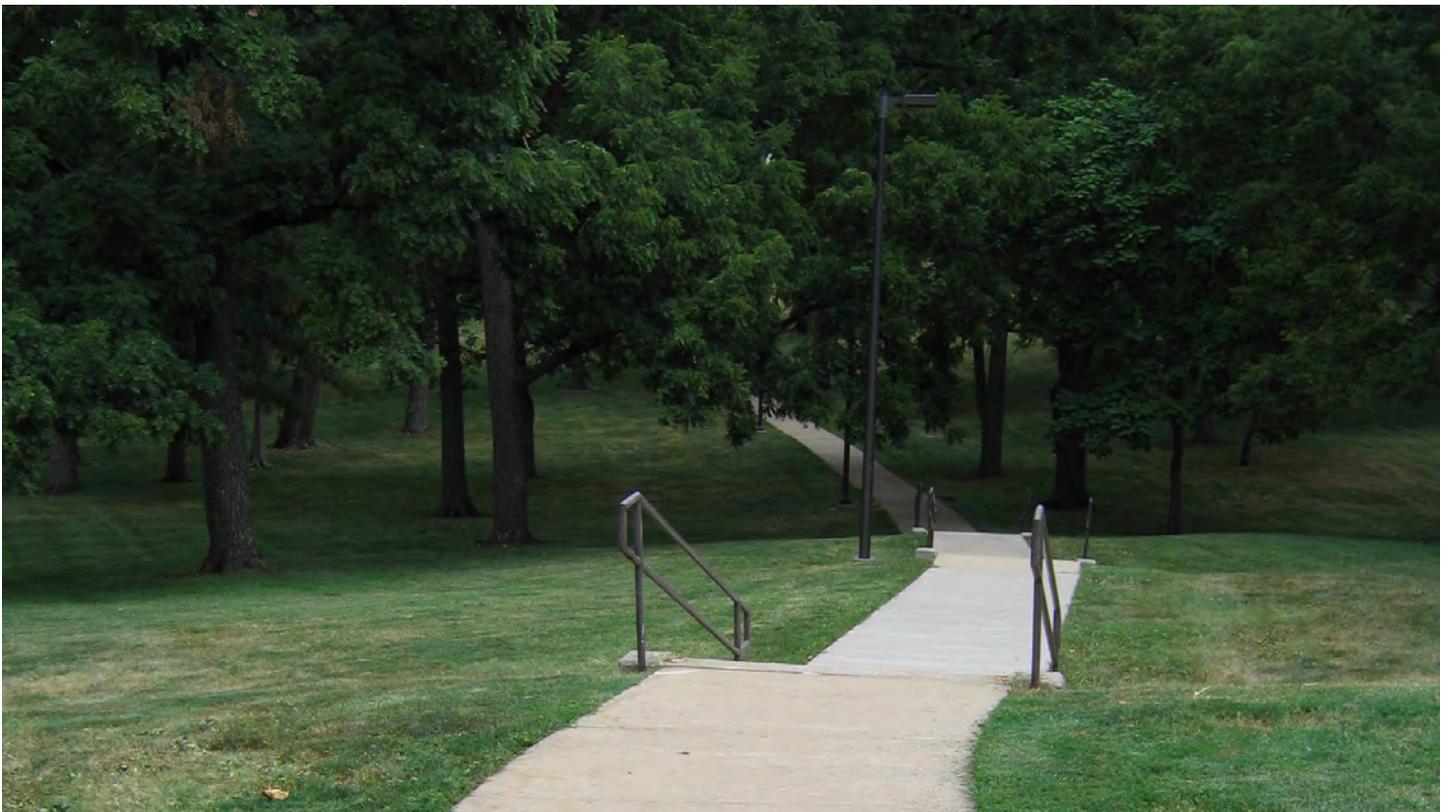


**Kansas
Chronic
Disease
State
Plan**

2013 - 2017

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Executive Summary

Chronic diseases are diseases of long duration and generally slow progression. They include arthritis, cancer, diabetes, heart disease, oral diseases and stroke, and are among the most common, costly and preventable of all health problems in the U.S.ⁱ Despite being the most preventable of all health problems, chronic diseases account for 8 of the 10 leading causes of death in Kansas and are a major contributor to health care costs.ⁱⁱ The majority of chronic diseases are fueled by lifestyle behaviors such as tobacco use, physical inactivity and poor eating habits.

Nearly one-third of the Kansas adult population is considered obese and more than 6 of every 10 adult Kansans is considered overweight.ⁱⁱⁱ Data from the 2010/11 Kansas Youth Risk Behavior Survey indicates that 13.9 percent of Kansas high school students in grades 9-12 were overweight and 10.2 percent were obese. Almost 1 in 4 (24.1%) Kansas high school students were overweight or obese during this time period. While progress has been made in reducing Kansas youth and adult smoking, more than 475,000 Kansas adults still smoke.^{iv} Access to critical preventive services, such as screenings for certain types of cancer, hypertension, blood cholesterol and oral health, are effective tools for preventing and controlling chronic disease.

Rising health care costs continue to impact state and local budgets. Based on national estimates, in 2010, health expenditures in Kansas neared \$26 billion and costs attributed to chronic diseases accounted for nearly \$20 billion.^v

The Kansas Chronic Disease Plan outlines a comprehensive approach to reduce the prevalence of chronic disease and improve the quality of care for those living with a chronic illness. The goals and objectives of the state plan reflect the complex nature of chronic disease and its associated risk factors. The plan is organized by the following five priority areas requiring work across multiple sectors at both the state and local levels:

- A. Community Clinical Linkages
- B. Community Health Promotion
- C. Health Systems
- D. Surveillance, Epidemiology and Evaluation
- E. Communications

The plan highlights the burden of chronic disease in Kansas, includes example activities to mediate the development and impact of chronic disease and serves as a call to action for all Kansans dedicated to a healthier, more productive state. Implementation will be driven by a robust network of state and local partners with a proven track record in implementing state plans to address heart disease and stroke, diabetes, cancer, arthritis, tobacco use, physical activity, nutrition and oral health. Working together we can make Kansas a healthier place to call home.

Many factors not fully covered in this plan also contribute to the prevention and control of chronic diseases these include environmental health issues (such as air and water pollution), alcohol abuse, mental health and oral health issues. Kansas has complete plans to address these issues and chronic disease partners will continue to work closely with these groups as we all move forward in improving the health of Kansans.

To support a more coordinated approach to chronic disease prevention and control and support the collaboration among partners, the KDHE Bureau of Health Promotion has realigned to more effectively address the five priority areas above. This collaborative model is designed to provide more efficient use of staff and partner time and program resources. This realignment and an increase in state coalition collaboration will contribute to the long-term sustainability of chronic disease work in Kansas.

Burden of Chronic Disease in Kansas

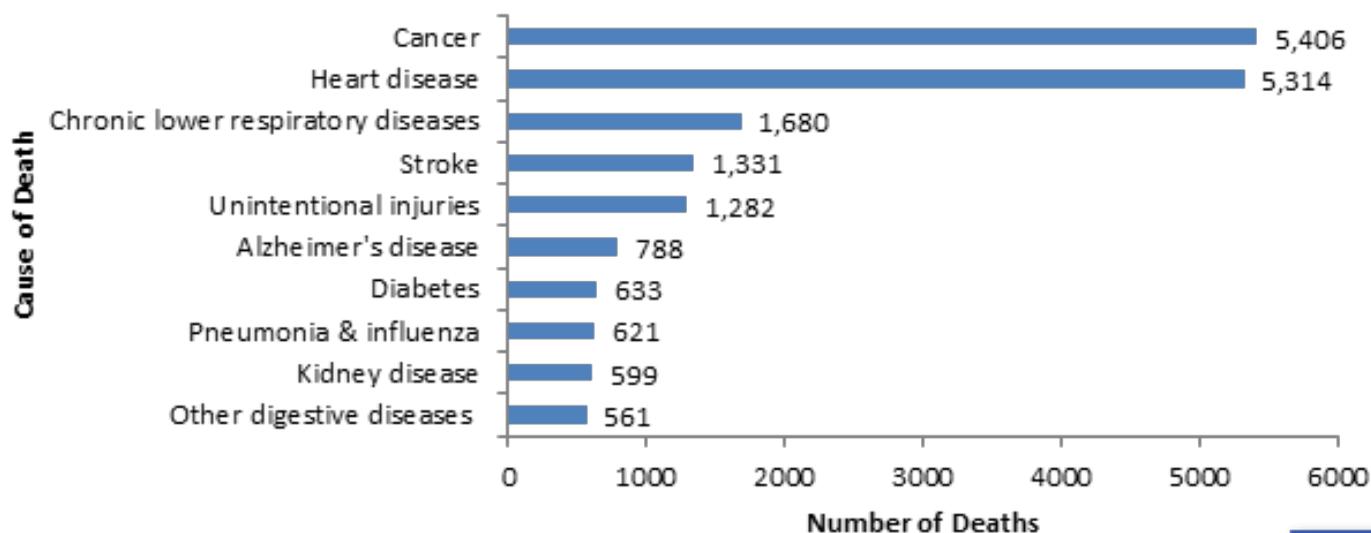
Chronic diseases—defined by their long duration, slow progression and ongoing management—are the leading causes of death and disability in the United States, accounting for 70 percent of all deaths.^{vi} The following section describes the burden of chronic disease mortality and morbidity in Kansas, with an emphasis on arthritis, cancer, diabetes, heart disease and stroke; chronic disease disparities; and risk and protective factors for chronic disease.

- **Arthritis** refers to more than 100 medical conditions affecting joints and their surrounding tissues. The most common types are osteoarthritis, rheumatoid arthritis and fibromyalgia.
- **Cancer** is a group of diseases in which abnormal cells divide uncontrollably and invade other tissues. There are more than 100 different types of cancer, most of which are named for the organ or type of cell in which they start. If the spread of cancer is not controlled, it can result in death.
- **Diabetes** is a chronic disease characterized by elevated blood glucose that can result from inadequate production of insulin (Type-1 diabetes) or a resistance to the effect of insulin (Type-2 diabetes). Over time, high blood glucose can lead to heart disease, stroke, kidney disease and other complications. The vast majority (90%-95%) of people with diabetes have type-2 diabetes.
- **Heart disease and stroke** include all diseases of the heart and blood vessels. The two major components of cardiovascular disease are **coronary heart disease (CHD)** and **stroke**. CHD occurs when the arteries that supply blood to the heart harden and narrow (i.e. atherosclerosis). Heart attack may result if blood flow to the heart muscle is completely obstructed. Stroke occurs when the blood supply to the brain is interrupted.

Chronic Disease Mortality

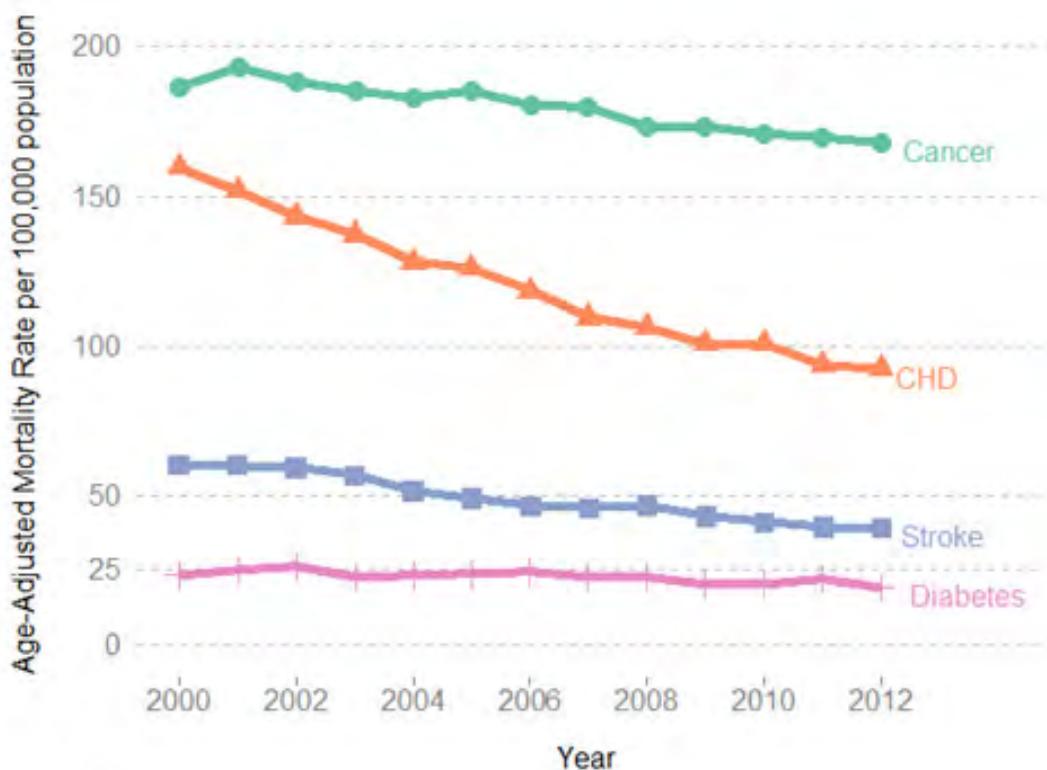
Chronic diseases comprised 8 of the top 10 leading causes of death among Kansans in 2012 (Figure 1). Cancer and heart disease remain the leading causes of death in the state.

Figure 1. Top 10 Leading Causes of Death, Kansas, 2012.



Although they remain the leading causes of death in Kansas, several chronic diseases, including coronary heart disease (CHD), stroke and cancer, have demonstrated significant decreases in age-adjusted mortality in the past decade (Figure 2). The age-adjusted diabetes mortality rate did not increase or decrease significantly during this time period. State-level trends of age-adjusted mortality rates for CHD, stroke, cancer and diabetes are parallel to those at the national level. Despite decreasing trends in age-adjusted mortality rates for CHD, stroke and cancer, and a stable trend in age-adjusted diabetes mortality rates, these four chronic diseases still accounted for approximately half of all deaths in Kansas in 2012.^{vii}

Figure 2. Age-adjusted mortality rates for selected chronic diseases, Kansas, 2000-2012.



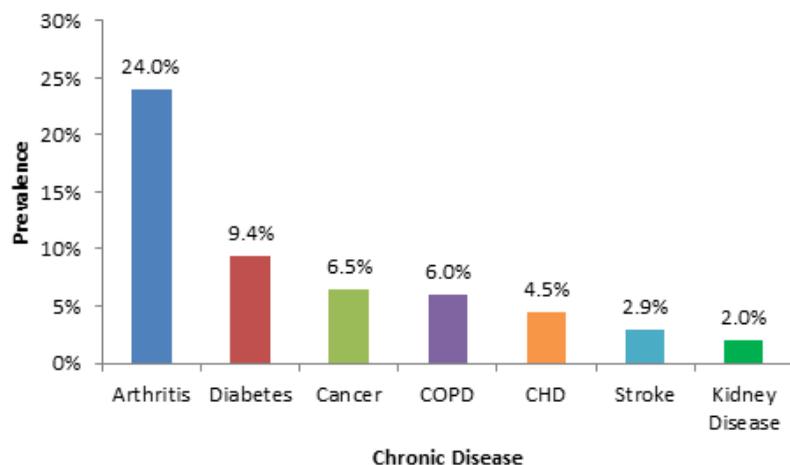
Source: 2000-2012 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. Rates were age-adjusted to the U.S. 2000 standard population using the direct method.

Chronic Disease Morbidity

In addition to being responsible for the majority of deaths among Kansans, chronic diseases cause significant illness and suffering. In 2012, approximately 1 in 4 (24.0%) Kansas adults 18 years and older reported ever being diagnosed with arthritis and nearly 1 in 10 (9.4%) reported ever being diagnosed with diabetes.^{iv} Due to relatively high mortality rates associated with some chronic diseases, fewer Kansans reported ever being diagnosed with cancer (excluding skin cancer) (6.5%), coronary heart disease (4.5%) or stroke (5.9%) (Figure 3).^{iv}

Although only 9.4 percent of Kansas adults 18 years and older reported ever being diagnosed with diabetes in 2012,^{iv} the prevalence of diabetes increased significantly during the past decade from 5.9 percent in 2000 to 8.4 percent in 2010.^{viii} In contrast, the age-adjusted hospital discharge rates for CHD and stroke have *decreased* significantly since 2000, mirroring the downward trend in CHD and stroke mortality rates. Age-adjusted cancer incidence rates have remained relatively stable during the period 2000-2008. However, the frequency of incident cancer cases remains high due to Kansas' aging population, with more than 13,000 invasive cancers diagnosed among Kansas residents each year, on average.^{ix} The most commonly diagnosed cancers among Kansas males during the time period 2004-2008 were prostate (28.9%), lung (14.7%) and colorectal (10.5%) cancer.^x Among Kansas females, the most commonly diagnosed cancers during this time period were breast (29.7%), lung (12.6%) and colorectal (10.6%) cancer.^x

Figure 3. Prevalence of selected chronic diseases among adults 18 years and older, Kansas, 2012.



Source: 2012 Kansas Behavioral Risk Factor Surveillance System, Bureau of Health Promotion, KDHE.

It is important to note that chronic health conditions often co-occur. For example, in 2012, nearly 4 out of 5 (79.4%) of Kansas adults 18 years and older with arthritis had at least one other chronic health condition (i.e. diabetes, current asthma, cancer, coronary heart disease, hypertension or stroke).^{iv} Arthritis prevalence is highest among persons with high blood pressure (48.7%), coronary heart disease (58.9%), diabetes (51.4%) and current asthma (37.4%).^{iv}

Chronic Disease Disparities

The burden of chronic disease mortality and morbidity varies among different age, gender, race/ethnic and household income groups.

Age

Morbidity and mortality due to chronic diseases increases with age. For example, in 2012, half of Kansas adults (50%) 65 years and older had arthritis, while only 1 in 5 (18.0%) adults younger than 65 years old did.^{iv} Similarly, the prevalence of CHD, heart attack, stroke and diabetes in 2011 was significantly higher among adults 65 years and older as compared with adults in younger age groups.^{iv} During the time period 2005-2009, cancer mortality rates were highest among Kansans 85 years and older,^{xi} while cancer incidence rates peaked among Kansans 75-79 years old during the time period 2004-2008.^x

Gender

Morbidity and mortality due to chronic diseases are typically higher among men. Age-adjusted mortality rates for cancer, CHD and diabetes are all significantly higher among men as compared to women.^{xii} Cancer incidence and CHD and heart attack prevalence are also significantly higher among men as compared to women.^{xi} However, stroke prevalence and age-adjusted stroke mortality rates are similar for men and women.^{xi,xiii} In contrast, the prevalence of arthritis is significantly higher among Kansas women 18 years and older (27.6%) as compared to Kansas men (20.3%).^{iv}

Race/Ethnicity

Morbidity and mortality due to chronic diseases differs among racial/ethnic subgroups. In Kansas, non-Hispanic African Americans and Hispanics are particularly disparate groups with respect to the burden of chronic disease. For example, age-adjusted mortality rates for cancer, CHD, stroke and diabetes are significantly higher among African Americans as compared to whites in Kansas.^{xii} Age-adjusted diabetes prevalence and mortality rates are significantly higher among Hispanics in Kansas as compared to non-Hispanic whites.^{xi,xii} However, age-adjusted prevalence of arthritis and age-adjusted incidence and mortality rates for cancer are significantly *lower* among Hispanics in Kansas as compared to non-Hispanic Kansans.^{x,xi,xii}

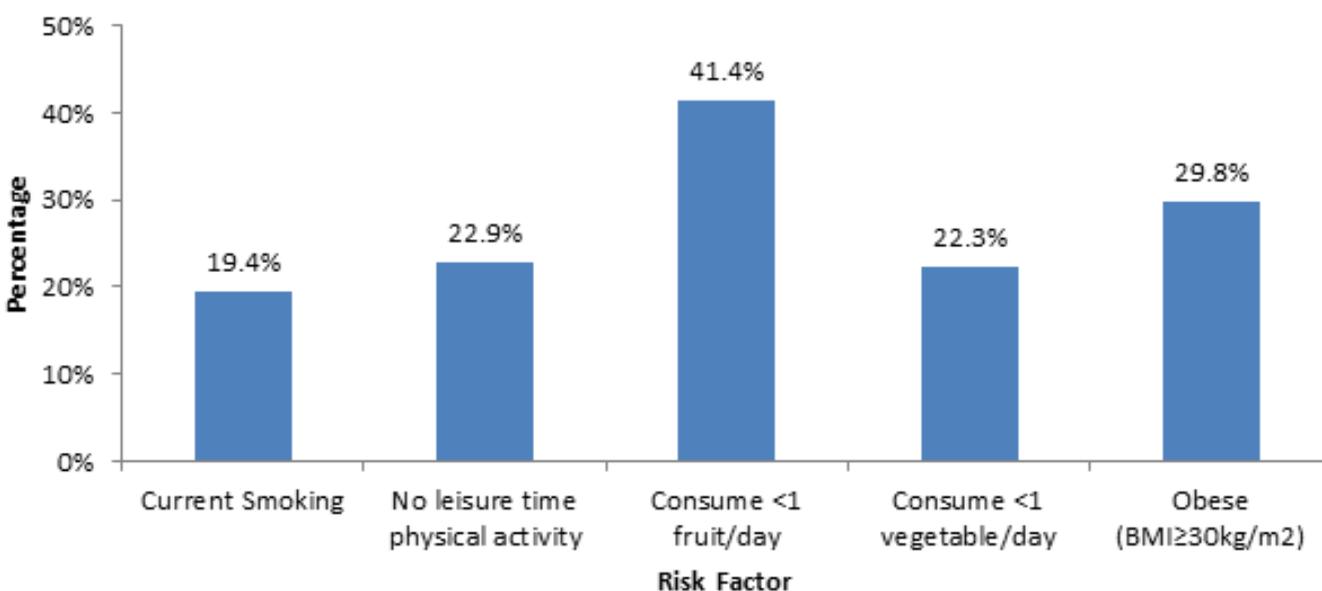
Income

Data on chronic disease disparities among different household income groups is not widely available at this time. However, current data demonstrates that the prevalence of arthritis, CHD, stroke and diabetes is significantly lower among individuals with an annual household income of \$50,000 or more as compared to all other income groups.^{iv}

Behavioral Risk and Protective Factors for Chronic Disease

Although chronic diseases are among the most common and costly of all health problems, they are also among the most preventable. Tobacco use, obesity, physical inactivity and poor nutrition are responsible for much of the illness, suffering and premature death related to chronic diseases. Often these behaviors are established during adolescence, long before the onset of chronic disease. Figure 4 shows the prevalence of current smoking, no leisure time physical activity, consumption of fruits and vegetables less than once per day, respectively, and obesity among Kansas adults 18 years and older in 2011-2012.^{iv}

Figure 4. Prevalence of selected chronic disease risk and protective factors among adults 18 years and older, Kansas, 2011-2012.



Source: 2011-2012 Kansas Behavioral Risk Factor Surveillance System, Bureau of Health Promotion, KDHE. Note: estimates of current smoking, no leisure time physical activity and obesity are based on 2012 data. Estimates of fruit and vegetable consumption are based on 2011 data.

Tobacco

Cigarette smoking increases the risk of several chronic health conditions, including, but not limited to, CHD, stroke, cancer and chronic obstructive lung disease. In 2012, the prevalence of current smoking among Kansas adults 18 years and older was 19.4 percent.^{iv} The prevalence of current smoking was significantly higher among young and middle-aged adults, adults with a lower education status and adults with a lower annual household income. Approximately 1 in 4 (24.9%) Kansas adults with current asthma currently smoke cigarettes.^{iv} In 2011, 14.4 percent of Kansas high school students in grades 9-12 currently smoked cigarettes.^{xiii}

Obesity

Obesity, defined as a body mass index ≥ 30 kg/m², increases the risk for several chronic diseases, including CHD, Type 2 diabetes, certain cancers, stroke and osteoarthritis. In 2012, 29.8 percent of Kansas adults 18 years and older were obese.^{iv} The percentage of Kansas adults who were obese in 2012 was significantly higher among Kansans 25 years and older, persons with less than college education, those whose annual household income was less than \$50,000 and those living with a disability. In addition, obesity is highly prevalent among Kansas adults with chronic health conditions. For example, 56.4 percent of Kansans

with diabetes and 39.9 percent of Kansans with arthritis are obese.^{iv} In 2011, 24.1 percent of Kansas high school students in grades 9-12 were overweight or obese (13.9% overweight, 10.2% obese).^{xiii}

Physical Activity

Regular physical activity is associated with reduced risk of several chronic health conditions including CHD, stroke, Type 2 diabetes and certain cancers. Participating in physical activity also delays the onset of functional limitations, prevents obesity^{xiv} and is essential for normal joint health. The U.S. Department of Health and Human Services' *2008 Physical Activity Guidelines for Americans* recommends that adults participate in at least 150 minutes a week of moderate-intensity aerobic activity, or 75 minutes a week of vigorous-intensity aerobic activity or an equivalent combination of moderate- and vigorous-intensity aerobic activity plus muscle-strengthening activities that involve all major muscle groups two or more times per week. The *Guidelines* also recommend that children and adolescents participate in at least 60 minutes of physical activity per day.

In 2011, 16.5 percent of Kansas adults 18 years and older met these physical activity guidelines.^{xvii} The percentage of Kansas adults meeting current physical activity guidelines was significantly lower among females, adults 65 years and older, those with less than college graduate education, those whose annual household income was less than \$50,000, residents of rural and frontier counties, those living with a disability and those who were obese.^{xvii} In addition, more than one-third of Kansans ever diagnosed with arthritis (35.8%), or diabetes (39.8%) reported no leisure time physical activity in 2011.^{xvii} In 2011, 69.8 percent of Kansas high school students in grades 9-12 did not engage in recommended levels of physical activity (i.e. at least 60 minutes per day).^{xiii}

Nutrition

Research shows that eating at least 2 ½ cups of fruits and vegetables per day is associated with a reduced risk of many chronic diseases, including heart disease, stroke and certain types of cancer. A diet rich in fruits and vegetables can also help adults and children achieve and maintain a healthy weight. In 2011, 41.4 percent of Kansas adults 18 years old and older consumed fruit less than one time per day and 22.3 percent consumed vegetables less than one time per day.^{xvii} The percentage of Kansans 18 years and older who consumed fruit less than one time per day was significantly higher among males, those aged 18-64 years, those with less than college graduate education and those who were obese. Similarly, the percentage of Kansas adults who consumed vegetables less than one time per day was significantly higher among males, those aged 18 to 34 years and those with less than a college graduate education.^{xvii} In 2011, only 17 percent of Kansas high school students in grades 9-12 ate fruits and vegetables five or more times per day.^{xiii}

Oral Health

Oral diseases, which range from cavities to oral cancer, cause pain and disability for millions of Americans each year. In Kansas children's oral health is improving, but the improvements are not uniform. In 2012, children in southwest Kansas had the highest rate of untreated dental decay (19%) and the lowest sealant rate (21%).^{xv} Children in south central Kansas have the highest caries experience, which includes both untreated dental decay and treatment of existing decay (58%).^{xv} Kansas children in poorer schools are 66 percent more likely to have dental decay than those in wealthier schools and 80 percent of Latino children in poorer schools had untreated dental decay.^{xv} Less than 5 percent of Kansas African American children had sealants.^{xv}

Kansas adult oral health also has room for improvement. In 2012, more than 1 in 6 (18.8%) Kansas adults over 65 had lost all their permanent teeth.^{iv} In 2012, approximately 14.1 percent of Kansas adults reported that they needed dental care during the past year, but did not receive it and 72.3 percent of these adults reported that cost was the main reason for not receiving dental care.^{iv} In 2012 the Kansas Mission of Mercy, a two day clinic that provides free dental services in one large city in Kansas, treated more than 2,000 Kansans.^{xvi}

Social and Environmental Factors Related to Chronic Disease Prevention and Control in Kansas

Demographics

The 2010 U.S. Census calculated the population of Kansas at more than 2.8 million people, a 6.1 percent increase since 2000. About 6 percent of Kansans are African American, and nearly 11 percent are persons of Hispanic or Latino origin. Approximately 75 percent of the state's population are 18 years and older, while 13 percent are 65 years or older. From 2000 to 2010, the population of adults 40 years and older in Kansas increased by approximately 12 percent, or by nearly 135,000 people. During this time period, the population of Kansans younger than 40 years old only increased by 2 percent, or by nearly 26,000 people. As previously noted, chronic disease risk increases with age. As the population continues to age, the burden of chronic disease morbidity and mortality can be expected to increase.

Economics

According to the 2010 American Community Survey, the median household income in Kansas was estimated at \$48,257 in 2010; approximately 13 percent of residents were below the poverty level and nearly 14 percent were uninsured. Lack of health insurance is an important barrier to chronic disease prevention and control. For example, for many cancer patients, health insurance status and other financial barriers delay or limit access to treatment and supportive services, and for almost all patients, cancer treatment presents a significant financial burden. In 2011, 19.7 percent of Kansas adults 18 years and older reported not having a personal doctor or health care provider.^{iv} Additionally, in 2011, 14.3 percent of Kansans reported not seeing a doctor because of cost in the past year.^{iv} Not seeing a doctor because of cost was more commonly reported among females, Hispanics, African Americans and uninsured individuals.^{iv}

Geography

Population density is calculated as the number of residents per square mile of land. Population density can be categorized as urban (150 or more persons per square mile), semi-urban (40-149 persons per square mile), densely-settled rural (20-39 persons per square mile), rural (6-19 persons per square mile), or frontier (fewer than 6 persons per square mile). The majority (84%) of Kansas' 105 counties are densely-settled rural (n=19), rural (n=38) or frontier (n=31), while the remaining 16 percent are semi-urban (n=12) or urban (n=5). Chronic disease mortality and morbidity have been shown to differ among population density subgroups. For example, the age-adjusted CHD mortality rate in urban counties is significantly lower than less population-dense counties, and the age-adjusted diabetes mortality rate is significantly lower in urban counties as compared to rural and densely-settled rural counties.^{vii} Some chronic disease risk factors also differ among population density subgroups. For example, the percentage of adults 18 years and older who meet current aerobic and strengthening physical activity guidelines is significantly higher among urban counties as compared to frontier or rural counties.^{iv}

Disability

In 2011, nearly 1 in 4 adults (24.5%) 18 years and older in Kansas were currently living with a disability (i.e. reported being limited in any activities because of physical, mental or emotional problems or reported having a health problem that requires them to use special equipment such as a cane, a wheelchair, a special bed or special telephone).^{iv} Kansans with disabilities have a higher prevalence of all chronic health conditions compared to Kansans without disabilities. Kansans with disabilities encounter social and environmental barriers, including higher unemployment and lower educational levels and incomes than persons without disabilities.^{iv} The unique health needs of adults with disabilities include an increased need for physical accessibility and other disability-related accommodations within health care settings.

Collaborative Process

Conclusion

It is important to recognize there may be social, environmental, economic and geographic factors unique to specific populations that may serve as potential facilitators or barriers to statewide chronic disease prevention and control efforts. However, the burden of chronic disease will be most successfully addressed in a coordinated manner. Mortality and morbidity in Kansas, as well as associated health disparities and behavioral and social risk factors, highlight chronic disease as a serious public health concern. Given the importance of this issue in a time of limited resources, a coordinated and collaborative approach at the state and local levels to prevent and control chronic disease is warranted.

Engaging a diverse group of stakeholders to build consensus around measurable recommendations and strategies for reducing the burden of disease is critical to any state planning effort. Kansas has a successful track record of developing state plans through stakeholder engagement to address chronic issues including cancer, diabetes, tobacco, arthritis, injury and disability. Participants in each categorical state planning process typically include representatives from public and private agencies and organizations with expertise in clinical care, communications, surveillance and epidemiology, community outreach, program development, health disparity, evaluation and fiscal accountability, as well as individuals with the conditions and their families.

Efforts to develop the state chronic disease plan relied on a similar process, capitalizing upon these existing partnerships. Leadership of the categorical state coalitions (Heart and Stroke Alliance of Kansas, Kansas Cancer Partnership, Kansas Diabetes Action Council and Tobacco Free Kansas Coalition) agreed to participate in the development of a state chronic disease plan. Working together for a common goal is not foreign to these coalitions, as evidenced by ongoing efforts to address tobacco use prevention and control and most recently quality of care in diabetes, heart disease and stroke.

The first draft of the Kansas Chronic Disease Plan was created by aligning state objectives and strategies from all state plans to address chronic disease more broadly, looking for areas of cross-cutting issues, and identifying high priorities and gaps within chronic disease work. In 2013 partners met in person to review the draft objectives, review the current chronic disease burden in the state and the Healthy Kansans 2020 priorities, and discuss modifications to the objectives and activities within each domain. The recommendations from this June meeting were compiled and distributed to all participants and individuals who wanted to contribute, but were unavailable for the in-person meeting. Further modifications were recommended by email and incorporated into this final plan.

These collaborative efforts have already resulted in streamlined efforts toward chronic disease reduction and control. For example, the Heart and Stroke Alliance of Kansas and the Kansas Diabetes Action Council discovered they had overlapping and complimentary objectives. The groups decided to combine all their efforts, become the Chronic Disease Alliance of Kansas and look for ways to align with other health coalitions to more effectively address broader chronic disease issues beyond heart, stroke and diabetes.

While coalitions were examining strategies for increased collaboration, the disease and issue-specific state categorical programs within the Kansas Department of Health and Environment (KDHE) were also realigning to work more collaboratively for broader chronic disease objectives. KDHE Bureau of Health Promotion leadership has modified the structure of the bureau to facilitate cross-program collaboration and better support partner collaboration.

The Kansas Chronic Disease Plan stands as a living document that will be continually updated and improved as more collaborators become involved in the process and lessons are learned from implementation.

Kansas Stakeholders in Chronic Disease Prevention and Control

- American Cancer Society (Kansas Chapter)
- American Heart Association (Midwest Affiliate)
- American Lung Association (Kansas Chapter)
- Blue Cross Blue Shield of Kansas
- Central Kansas Foundation
- Child Care Aware of Kansas
- Chronic Disease Alliance of Kansas * +
- Governor’s Council on Fitness
- Johnson County Department of Health and Environment
- Kansas Academy of Family Physicians
- Kansas Association for the Medically Underserved
- Kansas Association of Local Health Departments
- Kansas Cancer Partnership*
- Kansas Department for Aging and Disability Services
- Kansas Department for Children and Families
- Kansas Department of Health and Environment*
- Kansas Department of Transportation
- Kansas Foundation for Medical Care
- Kansas Health Foundation
- Kansas Health Institute
- Kansas Medical Society
- Kansas Recreation and Parks Association
- Kansas State Department of Education
- Kansas State University Research and Extension
- Nye and Associates
- Oral Health Kansas
- Sedgwick County Health Department
- The Sunflower Foundation
- Tobacco Free Kansas Coalition*
- United Methodist Health Ministries
- United Methodist Mexican-American Ministries
- University of Kansas Medical Center
- University of Kansas School of Journalism and Mass Communications
- University of Kansas School of Medicine*
- Wichita Business Coalition on Health Care
- Wichita State University Center for Community Support and Research*
- YMCA of Kansas

**Initial developers of the state chronic disease plan*

+ The Kansas Diabetes Action Council and the Heart and Stroke Alliance of Kansas merged in 2012 to become the Chronic Disease Alliance of Kansas.



Objectives

The objectives of this plan define a comprehensive approach to prevention and control of chronic disease (e.g. arthritis, cancer, diabetes, heart disease and stroke) and promotion of oral health in Kansas. These objectives were developed by first identifying the cross-cutting issues and priorities in existing disease and risk factor-specific state plans previously vetted by state coalitions of partner organizations and businesses. State chronic disease coalitions include the Chronic Disease Alliance of Kansas (CDAK), Kansas Cancer Partnership (KCP), Oral Health Kansas (OHK) and the Tobacco Free Kansas Coalition (TFKC). Secondly, state partners from a variety of health, dental, non-profit, government, school and business organizations met to review, discuss and revise these objectives. Lastly, these partners and others reviewed and commented on revised objectives via email. State and local partners (existing and new partners identified by the chronic disease steering committee) will be asked to identify activities within this State Plan that they can implement independently or contribute to implementing.

A. Community Clinical Linkages

Community-clinical linkages help ensure that people with or at high risk of chronic diseases have access to community resources and support to prevent, delay or manage chronic conditions once they occur. These supports include interventions that increase the likelihood that people with heart disease, cancer, diabetes or pre-diabetes, and arthritis will be able to “follow the doctor’s orders” and take charge of their health – improving their quality of life, averting or delaying onset or progression of disease, avoiding complications (including during pregnancy), and reducing the need for additional health care.

Period Objective A.1 - By August 2017, expand community systems with sufficient capacity to offer community-led self-management programs in 85 percent of Kansas counties.

Example Activities:

- Conduct a coordinated campaign to increase knowledge of Kansans Optimizing Health Programs (KOHP) and Diabetes Self Management (DSM) and encourage people to become KOHP and DSM trainers.
- Use regional and local health coalitions in the coordinated campaign.
- Support new KOHP & DSM trainers through technical support and assistance with program promotion.

Period Objective A.2 - By August 2017, increase use of CDC recognized lifestyle change programs for the prevention of type 2 diabetes by offering programs in at least 10 Kansas counties.

Example Activities:

- Facilitate development and implementation of a strategic plan to address diabetes primary prevention (DPP).
- Educate CDAK member organizations on prediabetes and DPP.
- Encourage local public health partners to offer CDC recognized lifestyle change programs for the prevention of type 2 diabetes.

Period Objective A.3 - By August 2017, train at least 500 Kansas health care, dental and mental health professionals in the 3 or 5 A's of tobacco cessation and Kansas Tobacco Quitline referral.

Example Activities:

- Work with state and local medical, dental and mental health organizations, local health departments and community coalitions to identify providers to train and to schedule trainings.
- Coordinate trainings with other local or regional health, dental or mental health trainings.

Period Objective A.4 - By August 2017, increase the number of people participating in community-based programs for the prevention, detection and treatment of diabetes, cancer, obesity and arthritis who were referred by a provider by 10 percentage points. Baselines: Walk with Ease = 27 (2011 - 2013), DSMP = 0, CDSMP/Tomando Control De Su Salud = 4 (2013), Diabetes Prevention Program = 0

Example Activities:

- Educate providers on and encourage them to promote the following evidence-based strategies: Walk with Ease, Chronic Disease Self-Management/Tomando Control De Su Salud, Diabetes Self-Management, Diabetes Prevention Program and Early Detection Works.
- Expand access to evidence-based chronic disease prevention and control programs (including those listed above).
- Educate providers on the benefits of cancer patients participating in Chronic Disease Self-Management/Tomando Control De Su Salud

Period Objective A.5 - By August 2017, increase the proportion of patients with high blood pressure that have a self-management plan to 30 percent.

Example Activities:

- Work with state and local medical, dental and mental health organizations, local health departments and community coalitions to identify providers to train and to schedule trainings.
- Coordinate trainings with other local or regional health, dental or mental health trainings.

Period Objective A.6 - By August 2017, increase the proportion of practicing clinical professionals and community representatives (individuals who provide or use community resources to manage health conditions or disease risk) who participate in Kansas local or state chronic disease coalitions to at least 25 percent of each coalition's membership.

Example Activities:

- Determine baseline of the number of practicing clinical professionals and community representatives who participate in Kansas local or state chronic disease coalitions.
- Conduct a coordinated campaign among clinical partners as to the importance of coalition participation.
- Use existing regional and local health coalitions in campaign efforts to increase membership in state coalitions.
- Approach non-traditional clinical professionals such as chiropractors and pharmacists to participate in coalitions.
- Approach participants and leaders from community-based resources to participate in coalitions.
- Track the number of practicing clinical professionals and community representatives participating in coalitions annually.

Period Objective A.7 - By August 2017, increase the proportion of practicing clinical professionals and community representatives (individuals who provide or use community resources to manage health conditions or disease risk) who take a more active role in the coalitions by being members of a Kansas local or state chronic disease coalition workgroup/committee to at least 25 percent of each coalition's workgroup/committee members.

Example Activities:

- Determine baseline of the number of practicing clinical professionals and community representatives who are members of a Kansas local or state chronic disease coalition workgroup/committee.
- Conduct a coordinated campaign among clinical coalition members as to the importance and benefits of workgroup/committee participation.
- Include regional and local health coalitions in campaign efforts to encourage workgroup/committee participation by practicing clinical professionals and community representatives.

Period Objective A.8 - By August 2017, decrease the percent of Kansans with disabilities who report restriction to health care access (including dental and mental health) from 9.5 percent (KS BRFSS 2009) to 8.5 percent. (Kansans with disabilities are individuals who reported they were limited in any activities because of physical, mental or emotional problems or who reported having a health problem that requires them to use special equipment such as a cane, a wheelchair, a special bed or a special telephone.)

Example Activities:

- Promote continuing education disability cultural competency courses to health care professionals (physical, sensory, intellectual, developmental and mental health/illness sensitivity courses).
- Conduct a disability cultural competency course at nursing, medical and dental schools or encourage schools to add disability awareness to existing required courses.
- Build a network of health professionals dedicated to providing support and systematic linkages to community resources for children and youth with special health care needs, adults with disabilities and/or other chronic diseases.
- Educate clinics, hospitals and local health departments about cost-effective strategies to make their facilities more accessible.
- Add the following question to the 2016 Kansas BRFSS for individuals who report they are living with a disability: Are you restricted in any way to health care services such as physician visit, hospital inpatient care, dental visit or mental health services?

B. Community Health Promotion

Improvements in social and physical environments make healthy behaviors easier and more convenient for Kansans. A healthier society delivers healthier students to our schools, healthier workers to our employers, and a healthier population to the health care system. These types of interventions support and reinforce healthy choices and healthy behaviors and make it easier for Kansans to take charge of their health. They have broad reach, sustained health impact and are best buys for public health.

Period Objective B.1 - By August 2017, increase the percent of Kansans who have had age-appropriate screenings to identify chronic diseases and related risk factors within recommended time frames by at least 3 percentage points.

- Women 21 to 65 years old who have had a cervical cancer screening within the last three years baseline 87.8 percent (2010 KS BRFSS).
- Women 40 years old and older who had a mammogram within the last two years baseline 75 percent (2011 KS BRFSS).

- Adults age 50 and older who have ever had a sigmoidoscopy or colonoscopy baseline 64.2 percent (2010 KS BRFSS).
- Adults who have had a test for high blood sugar or diabetes within the past 3 years baseline 52 percent (2011 KS BRFSS).
- Adults who have their cholesterol checked within 5 years baseline 72.9 percent (2011 KS BRFSS).

Example Activities:

- Identify evidence-based best practices to increase screening for chronic diseases and risk factors.
- Develop messaging for use by the media and providers to increase health screening rates.
- Conduct evidence-based campaigns to increase health screening.
- Work with existing programs to break down financial and disability-related barriers, including working with employers for adequate time off to take advantage of screening opportunities in the community and ensuring that screening facilities are accessible for persons with disabilities.
- Target disparate populations for increased screening.

Period Objective B.2 – By August 2017, increase the number of people who have a personal doctor or health care provider from 80.3 percent (2011 KS BRFSS) to 84 percent.

Example Activities:

- Support and promote KanCare (Kansas Medicaid) projects to increase use of medical homes.
- Health insurance providers promote medical homes through marketing and possibly through incentives.

Period Objective B.3 - By August 2017, increase the proportion of Kansas adults who meet the aerobic and strengthening exercise recommendations, from 16.5 percent (2011 KS BRFSS) to 19.5 percent.

Example Activities:

- Encourage worksites to add incentives for employees to be physically active.
- Create enhanced access to places for physical activity combined with informational outreach activities.
- Support complete streets initiatives at the local level.
- Promote development and use of walking and hiking trails.

Period Objective B.4 - By August 2017, increase the proportion of Kansas high school students who participate in the recommended level of physical activity from 30.2 percent (YRBS, 2011 – physically active 60 minutes per day) to 35 percent.

Example Activities:

- Increase the number of schools incorporating Let’s Move Active Kansas Schools.
- Promote safe routes to school.
- Promote joint use agreements for school recreational facilities.
- Support initiatives to require physical education in schools.



Period Objective B.5 - By August 2017, increase the percent of Kansans with disabilities who meet the aerobic and strengthening recommendations for physical activity from 12.2 percent (2011 KS BRFSS) to 15 percent.

Example Activities:

- Work with health and mental health providers to promote physical activity to patients with disabilities.
- Adapt the Walk with Ease program to include people who use wheelchairs.
- Promote the National Center on Physical Activity and Disability's (www.ncpad.org) and the National Association of City and County Health Officials existing programs, online communities and fact sheets to disability and physical activity organizations/agencies including the Arthritis Foundation.
- Work with schools and youth with disabilities to ensure the appropriate inclusion of students with disabilities in physical education and other recreation opportunities. Work with physical activity coordinators to adapt the activities to meet the needs of youth/students with functional needs.
- Encourage worksites to be sure include people with disabilities in worksite physical activity programs

Period Objective B.6 - By August 2017, increase the proportion of Kansas adults who consume fruit at least once a day and vegetables at least once a day by at least 3 percentage points. Baselines: Fruit at least once a day = 58.6 percent (2011 KS BRFSS), Vegetables at least once a day = 77.7 percent (2011 KS BRFSS).

Example Activities:

- Increase access to grocery/supermarkets in low income or minority areas.
- Increase access and availability of farmers' markets.
- Increase EBT (electronic benefit transfer) availability in markets to improve access for individuals in the Food Assistance Program.
- Work with worksites to provide company supported agriculture (CSA) to employees (similar to a food Co-op but focuses more on fresh produce).
- Improve the consumer environment within grocery and convenience stores to increase access to fruits and vegetables.
- Increase community gardens in all areas.
- Establish farm-to-institution for worksites with a cafeteria, food court or snack bar.

Period Objective B.7 - By August 2017, increase by 5 percentage points the proportion of Kansas youth who consume at least five fruits and vegetables a day. Baselines: middle school students = 23 percent and high school students 21 percent (2009/2010 KS YTS)

Example Activities:

- Support Smarter Lunchroom Techniques (Behavioral Economics) in schools to increase consumption of fruits and vegetables. (These techniques are supported by research from Cornell University and involve ways to make the healthy choice the easy choice such as putting skim milk in front of low fat milk in the milk cooler the students use.)
- Increase participation in nutrition education programs such as Team Nutrition, Fresh Fruit and Vegetable Program and KSU Extension Nutrition Programs.
- Increase access and availability to grocery/supermarkets in low income or minority areas
- Support school policies and assist schools to meet Smart Snacks in Schools requirements.
- Promote Farm to School including establishing school gardens.
- Promote the HealthierUS School Challenge and increase the number of schools that receive recognition.

Period Objective B.8 - By August 2017, increase the proportion of Kansas women who breast feed until their child is at least 6 months old from 45.1 percent (CDC National Immunization Survey, 2009 births) to 50 percent.

Example Activities:

- Promote worksite lactation support programs.
- Develop hospital policies to reduce formula supplementation within the first 2 days of life.
- Encourage birthing centers not to include formula or formula coupons in new mother gift bags.
- Increase the number of Kansas birthing centers that participate in the High 5 for Mom and Baby program to provide recommended care for lactating mothers and their babies.

Period Objective B.9 - By August 2017, decrease the proportion of Kansas middle school and high school students who drank a can, bottle or glass of soda or pop (excluding diet soda) one or more times per day in the past week by 3 percentage points. Baselines: Kansas high school students = 23.1 percent (2011 KS YRBS), Kansas middle school students = 23.7 percent (KS YTS)

Example Activities:

- Support policies that limit the sugar-sweetened beverages available in Kansas school vending machines, school stores, canteen and snack bars.
- Promote drinking more water in schools.
- Promote nutrition education that encourages increased water consumption and decreased soda consumption.
- Support HealthierUS School Challenge participation (trainings, grants and recognition).

Period Objective B.10 - By August 2017, increase the percent of Work Well Kansas worksites with healthy food policies from 36 percent (Work Well Kansas June 2013) to 45 percent.

Example Activities:

- Support worksites in developing written policies supporting employee access to healthy foods.
- Support worksites in developing written policies making healthy food options (e.g. vegetables, fruits, low-fat snacks, low-sodium options) available during meetings or anytime when food is served.
- Support worksites in developing and implementing strong nutrition standards for the foods and beverages served at worksite facilities, including vending machines (e.g. policies to reduce trans fats, increase fruits and vegetables).

Period Objective B.11 - By August 2017, reduce the Kansas high school, adult and adults with disabilities smoking prevalence rates by 2 percentage points. Baselines: Kansas high school students = 13 percent (2011-2012 KS YTS), Kansas adults = 22 percent (2011 KS BRFSS), Kansas adults with disabilities = 27.7 percent (2011 KS BRFSS)

Example Activities:

- Promote the Kansas Tobacco Quitline in high schools.
- Promote the Quitline to high school youth through online advertising and social media posts.
- Conduct tobacco-free campus summits on college campus to provide tobacco education and resources to students, faculty and staff.
- Promote the Quitline in college newspapers, sports programs and other campus outlets.
- Distribute Quitline materials through health insurance companies, worksite wellness programs, health care providers and dental care providers.

- Promote the Quitline through online advertising and social media posts targeting adults.
- Promote the Kansas Tobacco Quitline to community developmental disability organizations, centers for independent living and aging and disability resource centers.
- Encourage multi-unit housing facilities to implement smoke-free policies.
- Encourage smoke-free parks and tobacco-free school grounds.
- Encourage college campuses to be smoke-free.
- Highlight the health risks of smoking including heart disease, cancer, stroke and diabetes.
- Promote other cessation programs including the American Lung Association's Freedom from Smoking Classes for individuals who want in-person group counseling.

Period Objective B.12 - By August 2017, reduce the use of other tobacco products (smokeless tobacco, cigars, dissolvable tobacco, hookah, roll-your-own tobacco, pipe tobacco, snus, kreteks and bidis) among Kansas high school students from 17.7 percent (2011/2012 KS YTS) to 16 percent.

Example Activities:

- Develop other tobacco specific cessation promotional materials.
- Promote the Kansas Tobacco Quitline in high schools.
- Promote the Quitline to high school youth through online advertising and social media posts.

C. Health Systems

Health systems interventions improve the clinical environment to more effectively deliver quality preventive services and help Kansans increase use and benefits from those services. The result: some chronic diseases and conditions will be avoided completely, and others will be detected early or managed better to avert complications and progression and improve health outcomes. Health system and quality improvement changes can encourage providers and health plan administrators to focus on preventive services. Effective outreach to consumers and reducing barriers to accessing these services are also important, as coverage alone will not ensure use of preventive services.

Period Objective C.1 - By August 2017, provide at least 10 quality of care improvement training opportunities annually for health care professionals. (Quality of care is the degree to which health care services at the patient level and/or population level increases the likelihood of desired health outcomes and is consistent with current evidence-based practice. Kansas trainings are typically conducted by a collaboration of organizations including KDHE, Kansas Foundation for Medical Care and KU School of Medicine, and generally 100 or more health care professionals attend each training.)

Example Activities:

- Work with partners to determine potential locations and audiences for quality of care improvement trainings.
- Establish a training schedule.
- Promote trainings through health care associations, partner organizations, and medical, nursing and pharmacy schools.

Period Objective C.2 - By August 2017, increase the proportion of health care systems with policies or systems to encourage a multi-disciplinary team approach to blood pressure control to 10 percent.

Example Activities:

- Provide continuing education to providers on hypertension control.
- Extend patient care and self-management initiatives through partnerships with pharmacists, nurses and health navigators across the state.

Period Objective C.3 - By August 2017, increase the proportion of health care systems reporting on the percentage of patients 18 to 85 years of age who had a diagnosis of hypertension and whose blood pressure (BP) was adequately controlled (<140/90) (National Quality Forum Measure 18) to 10 percent.

Example Activities:

- Increase the number of Kansas health care clinics who adopt EHRs, track NQF 18 and implement quality improvement efforts with a focus on hypertension.
- Provide training and technical assistance to clinics to ensure EHRs are set-up to track NQF 18 and are EHRs are appropriate for treating hypertension.
- Work to connect clinics with local health departments and other community resources to take a systems approach to promoting education and hypertension screening referrals.

Period Objective C.4 - By August 2017, increase implementation of quality improvement processes through the use of electronic health records in Kansas health care clinics to improve chronic disease management from 5% of clinics to 30 percent.

Example Activities:

- Conduct a coordinated campaign among health clinics participating in the Kansas Quality of Care Project to educate them on the importance of the use of electronic health records for chronic disease prevention and management.
- Work with the Kansas Foundation for Medical Care (KFMC), a quality improvement organization, to conduct a coordinated campaign among health clinics that KFMC partners with to educate them on the importance of the meaningful use of electronic health records.
- Track and evaluate the number of health clinics participating in the Kansas Quality of Care Project and Kansas Early Detection Works using electronic health records.
- Track and evaluate the number of health clinics partnering with KFMC that have achieved Meaningful Use of electronic health records.

Period Objective C.5 - By August 2017, expand the number of primary care physicians in Kansas frontier and rural counties from approximately 58 primary care physicians per 100,000 residents (Kansas Primary Care Physician FTE Report by County 2011) to 65 primary care physicians per 100,000 residents.

Example Activities:

- Conduct a coordinated campaign among medical students and providers as to the primary care practice opportunities that exist in frontier and rural counties.
- Identify and implement strategies to increase residency training opportunities in primary care practice.
- Consider telemedicine options to increase access to primary care and prevention services in rural and frontier areas.

Period Objective C.6 - By August 2017, increase the number of practicing palliative care physicians in Kansas from 24 (Kansas Board of Healing Arts December 2012 survey data and August 2013 licensure data) to at least 34.

Example Activities:

- Conduct a coordinated campaign among medical students and providers as to the palliative care needs in Kansas.
- Identify and implement strategies to increase palliative care training opportunities.

Period Objective C.7 - By August 2017, expand the number of dentists in Kansas frontier and rural counties from approximately 32.6 dentists per 100,000 residents (Kansas Primary Care Dentist FTE Report by County 2010) to 36 dentists per 100,000 residents.

Example Activities:

- Conduct a coordinated campaign among dental students and providers as to the opportunity for oral health practice in Kansas frontier and rural counties (how great a place it is to practice, live, etc.).
- Promote the availability of student loan repayment programs in Kansas.

D. Surveillance, Epidemiology and Evaluation

Epidemiology and surveillance are necessary to collect data and information and to develop and deploy effective interventions, identify and address gaps in program delivery, and monitor and evaluate progress in achieving program goals. Data and information come with the responsibility to use it routinely to inform decision-makers and the public regarding the effectiveness of preventive interventions, the burden of chronic diseases and their associated risk factors, public health impact, and program effectiveness. The need to publicize widely the results of work in public health and demonstrate to Kansans the return on their investment in prevention has never been greater.

Evaluation is a key resource in determining a program's progress in meeting their objectives and obtaining their goals. Evaluation provides unbiased feedback to stakeholders to make decisions about program refinement, replication or conclusion. Evaluation of chronic disease programs, and the processes used to develop evidence-based programming, is a strong tool for both stakeholders and decision-makers in selecting the most effective systems and environmental interventions to promote chronic disease prevention and health promotion services.

Period Objective D.1 - By August 2017, develop a statewide chronic disease registry to track quality of care improvement.

Example Activities:

- Identify best practices in creation of a statewide chronic disease registry.
- Establish data collection to identify health disparities and environmental/program strengths and weaknesses.
- Identify and implement strategies to incorporate electronic health records into a chronic disease registry.

Period Objective D.2 - By August 2017, increase the number of targeted outpatient physician clinics, including medical oncology, urology, dermatology and gastroenterology, in electronic cancer case reporting from 1 to 3.

Example Activities:

- Conduct meetings with outpatient facilities to promote the benefits of submitting data electronically.
- Collaborate with the Kansas Health Information Exchange in regards to Stage II Meaningful Use.

- Follow-up with facilities to answer any questions related to electronic case reporting.
- Provide Kansas Cancer Registry software training.

Period Objective D.3 - By August 2017, develop and implement a cross-cutting evaluation plan that includes evaluation of local and state chronic disease coalitions.

Example Activities:

- Track and evaluate program progress annually.
- Disseminate evaluation results among health coalitions.
- Develop case studies to generate peer-reviewed articles.
- Collect outcome and progress results from state and local health coalitions annually.
- Conduct evaluation of coalitions' outcomes and progress annually.
- Use results to modify coalition plans, if indicated, and to report progress and lessons learned.

Period Objective D.4 - By August 2017, complete worksite wellness assessment to track employer-based interventions for chronic disease prevention and management in at least 200 worksites.

Example Activities:

- Recruit worksites that have implemented worksite wellness interventions to use the KDHE worksite wellness assessment tool.
- Provide training to worksites in use of the tool and technical assistance in interpreting results.
- Use local and regional health coalitions to disseminate findings.

Period Objective D.5 - During 2013, 2015 and 2017, implement expanded BRFSS Project to provide county and regional level data to local health departments and partners.

Example Activities:

- Collect BRFSS data on expanded sample every odd year to obtain adequate sample of complete interviews for local data analysis.
- Develop/identify questions for inclusion in BRFSS to assess new or emerging chronic disease health issues
- Provide analyzed local data through website and other formats to local programs for use in public health efforts.
- Identify and implement strategies for data collection to assure sufficient local area analysis.

Period Objective D.6 - During the 2013/2014, 2015/2016 and 2017/2018 school years, conduct the Kansas Youth Tobacco Survey to determine tobacco-related knowledge and behaviors among middle school and high school students.

Example Activities:

- Work with state and local partners to administer the KS YTS every other year.
- Disseminate KS YTS findings through local coalitions, partner organizations, statewide news releases and fact sheets.

Period Objective D.7 - During the 2012/2013, 2014/2015 and 2016/2017 school years, conduct the Kansas Youth Risk Behavior Survey (KS YRBS) to determine health risk knowledge and behaviors among high school students.

Example Activities:

- Work with state and local partners to administer the KS YRBS every other year.
- Disseminate KS YRBS findings through local coalitions, partner organizations, statewide news releases and fact sheets.

Period Objective D.8 - Each year between September 2013 and August 2017, monitor Kansas compliance rates related to underage sales of tobacco products.

Example Activities:

- Conduct a coordinated campaign educating retailers as to compliance rules.
- Include regional and local health coalitions in campaign efforts.
- Track and evaluate compliance rates annually.

Period Objective D.9 - Each year between September 2013 and August 2017, maintain an annual assessment of Kansas tobacco sales/revenue to identify trends.

Example Activities:

- Track and evaluate tobacco sales/revenue annually.
- Identify any factors that may have affected sales (such as the smoke-free law).

Period Objective D.10 - Conduct an annual needs assessment to enhance existing surveillance and epidemiology systems or identify new systems to collect baseline and follow-up data to support the development and evaluation of strategies in new and emerging areas of chronic disease.

Example Activities:

- Request recommendations from chronic disease programs and partners for new state added questions for the annual BRFSS to cover new and emerging areas of chronic disease.
- Request recommendations from chronic disease programs and partners for new state added questions for the Youth Tobacco Survey to cover new and emerging areas of chronic disease.
- Request recommendations from chronic disease programs and partners for new state added questions for the Youth Risk Behavior Survey to cover new and emerging areas of chronic disease.
- Review recommended questions for need and validity.
- Add questions that are deemed beneficial and valid to appropriate survey as funding allows.
- Enhance surveillance of chronic diseases and risk factors for early childcare and elementary school students (such as fruit and vegetable consumption, physical activity and use of recommended screenings).
- If a new or emerging chronic disease area will require a large number of questions to adequately study the issue, develop a new surveillance and epidemiology system to address this area.
- Enhance surveillance of asthma incidence and screenings for children and adults.

E. Communications

Communications strategies inform decision-makers, stakeholders, partner organizations and the public about the burden and risk factors associated with chronic disease, and the interventions and successes of chronic disease prevention and control. Communications strategies are the tools to increase support and understanding of chronic disease prevention and control work. These strategies are also essential to motivating individual behavior change, environmental change and systems changes. A more comprehensive state chronic disease communications plan has been developed and is being implemented. The period objectives below represent the key objectives of this larger plan.

Period Objective E.1 - By August 2017, develop and disseminate informational briefs on the Kansas burden, risk factors and risk reduction strategies of chronic diseases.

Example Activities:

- Use Kansas BRFSS, YRBS, YTS, hospital discharge and vital statistics data to develop the informational briefs.
- Briefs may be organized by risk factors instead of disease.
- Use evidence-based best practices for risk reduction to develop strategies.
- When possible include the economic impact of chronic diseases and/or the cost savings (Return on investment – ROI) of specific evidenced-based risk reduction strategies.
- Disseminate informational briefs through partner health organizations, websites and state forums.
- Develop and distribute news releases highlighting content from the informational briefs.
- Distribute social media posts monthly highlighting the burden of chronic disease or strategies to reduce chronic disease on KDHE and partners' social media pages.

Period Objective E.2 - By August 2017, share best practices in chronic disease prevention and provide networking opportunities for public health partners and health and dental care providers during at least 5 statewide forums per year.

Example Activities:

- Include work of regional and local health coalitions.
- Highlight standards and risk reduction recommendations from national programs such as comprehensive cancer programs, disability and physical activity organizations, and the Food and Drug Administration.
- Highlight the importance of data collection and evaluation in the implementation and refinement of interventions for chronic diseases.
- Include discussion of strategies to improve health literacy.
- Highlight the Kansas Chronic Disease Plan and work of local and state chronic disease coalitions in presentations and discussions.

Period Objective E.3 - By August 2017, expand Kansas Chronic Disease Media Advisory Council to include members from at least 10 organizations who can assist in communicating chronic disease information and serve as a resource to state and local chronic disease coalitions.

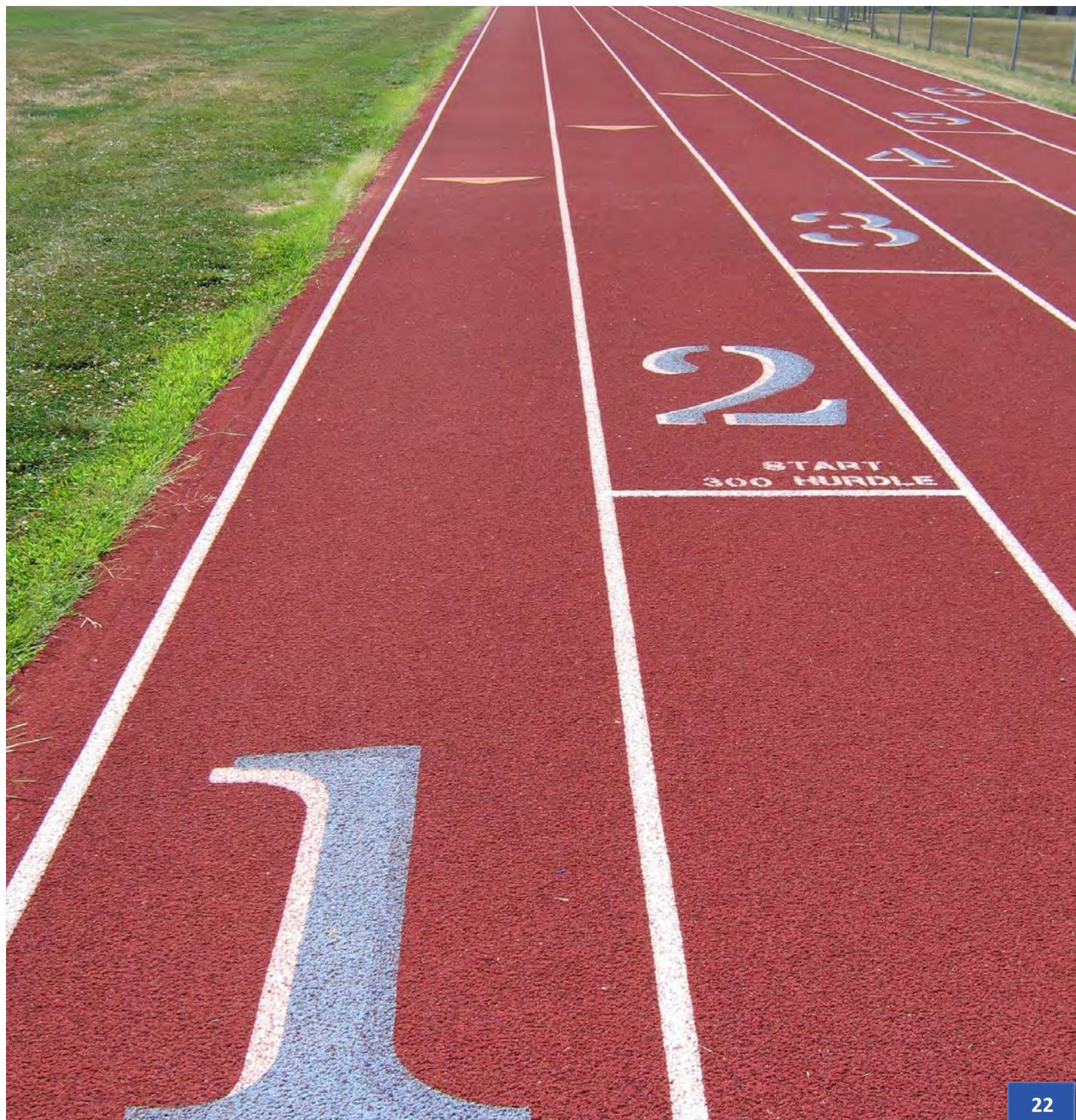
Example Activities

- Current members and chronic disease coalitions' leadership develop a list of potential members.
- Develop list of benefits of participation.
- Develop strategy for new member recruitment process.

Period Objective E.4 - By August 2017, develop the Chronic Disease Alliance of Kansas (CDAK) website, which will serve as a gateway to chronic disease information from other chronic disease coalitions (KCP & TFKC) and state and national chronic disease partners (e.g. CDC, American Cancer Society, American Heart Association, American Lung Association, Kansas Health Institute).

Example Activities

- Include areas for health practitioners and the public on the website.
- Meet with content experts to populate the website content and link to appropriate resources.
- Secure commitments from chronic disease coalitions to link to a common calendar.
- Continually update site content.



Evaluating the Plan

Evaluation of our collaborative chronic disease efforts will be assessed on an annual basis. Process evaluation will include on-going assessment of the plan's success at obtaining period objectives and stakeholders' use of the plan to guide their programs and activities. The plan's period objectives are written in SMART format and designed to facilitate impact on health outcomes. The plan will measure impact on health outcomes through outcome evaluation demonstrating completion of the objectives. A summary of the plan's outcomes is provided in Table 1. As detailed in our objectives, we will use a number of public health datasets including BRFSS, YTS, YRBS and vital statistics records to determine baseline numbers and goal numbers for various objectives. Any new datasets needed are stated specifically within the plan's objectives.

Table 1. Long-Term Health Outcomes of the Kansas Chronic Disease State Plan

Long-Term Health Outcomes (5+ years)		
State-level Indicator	Baseline (Year)	Data Source
Mortality		
Age-adjusted cancer mortality rate	167.5 (2012)	Kansas Vital Statistics
Age-adjusted CHD mortality rate	92.4 (2012)	
Age-adjusted stroke mortality rate	39.0 (2012)	
Age-adjusted diabetes mortality rate	19.4 (2012)	
Incidence		
Age-adjusted cancer incidence rate	443.4 (2010)	Kansas Cancer Registry*
Age-adjusted invasive oral and pharyngeal cancer incidence rate	10.5 (2009)	
Adult Prevalence		
Arthritis	24.0% (2012)	Kansas BRFSS
Diabetes	9.4% (2012)	
Adults who have lost all of their permanent teeth	5.8% (2012)	
Obesity	29.8% (2012)	

**Kansas Cancer Registry (KCR) data are based on analysis of 2001-2010 dataset. The year of cancer case is based on year of diagnosis not year case is reported to the registry. Data from the KCR is continually being updated; thus, incidence rates shown may differ from previous reports or analyses based on older datasets. Incidence rates from most recent years are likely underestimated and can be expected to increase once analyses are conducted on later datasets.*

Success concerning short-term indicators will be measured by the amount and level of partnership involvement in the plan's development. Success concerning intermediate indicators will be measured utilizing the strategies outlined in the objectives. And success concerning long-term indicators will be evidenced by increased positive health outcomes and decreased rates of chronic disease utilizing the previously mentioned public health data. As successful results are reported for an objective, resources may be redirected to focus on areas that continue to be of high need, particularly objectives related to addressing health disparities within

the state. All evaluation findings will be communicated with local and state health coalitions and other stakeholders involved in the pursuit of reducing the impact of chronic disease in our state. Communication concerning the plan's progress will be consistently provided to statewide stakeholders ensuring that our partners have ample opportunity to provide feedback to continue to improve the quality of our coordinated chronic disease activities.

Along with the evaluation of the progress made concerning specific objectives, KDHE is also evaluating its coordinated chronic disease efforts. Utilizing the department's Catalyst data management system, KDHE will be evaluated on the level and amount of their participation in program and partner collaboration. Collaboration will be tracked in three categories: potential collaboration (short-term indicator), planned collaboration (intermediate indicator), and demonstrated collaboration (long-term indicator). Potential collaboration will be determined by measuring the linkages between program and partner logic models located in the Catalyst system. Planned collaboration will be determined by measuring the number of linkages found within program and partner action plans in the Catalyst system. Demonstrated collaboration will be determined by measuring the number of linkages found within program and partner progress reports in the Catalyst system.

In addition to this quantitative analysis of the potential, planned and demonstrated program and partner collaboration using the Catalyst data management system, a qualitative analysis will be conducted using key informant interviews with identified KDHE staff and statewide chronic disease partners to measure the strengths and weaknesses of the various collaborative efforts. We seek to maintain a vigorous evaluation process—involving both process and outcome evaluation—to ensure that KDHE continues to successfully progress in its coordinated chronic disease efforts.

In Kansas the following populations are disparately affected by multiple chronic diseases and risk factors: people with disabilities, people with low incomes and people with low education. This plan contains objectives (A.8, B.5, B.11) directly addressing health care access, smoking and physical activity among people with disabilities. The health screening objective (B.1), fruit and vegetable consumption objective (B.6) and smoking objective (B.11) each contain a strategy for targeting disparate populations. The disparate populations for objective B.1 are adults with low incomes, adults with low education and African-Americans. The disparate populations for adults smoking (B.11) are adults with low incomes and adults with low education. The Kansas BRFSS will be used to evaluate changes in behavior among these adult disparate populations. Among Kansas high school students the disparate population for physical activity is females. The Kansas Youth Tobacco Survey will be used to evaluate changes in behavior for this disparate group within Kansas high school students.



Communicating Plan & Activities

While chronic disease directly affects many Kansans, many do not realize the burden of chronic disease on individuals, communities, health care systems and the state. Additionally, many Kansans are not aware of strategies to reduce chronic disease risks and control existing diseases. Further, they are not aware of the positive impact provided by these strategies. The goal of the Kansas Chronic Disease Communication Plan is to increase awareness of: 1) the burden of chronic disease, 2) the strategies to reduce the burden, and 3) the impact of Kansas' coordinated efforts. The goal is that Kansans' increased awareness and knowledge will translate into support for chronic disease reduction and control work, which will ultimately reduce chronic disease in Kansas.

Communication work will focus on the following three broad audiences: chronic disease prevention and control partners, state and local decision-makers, and the general adult population. All three audiences play a role in reducing the incidence and impact of chronic disease in Kansas. Partner organizations include health and dental care providers, health agencies, advocacy groups and educational institutions. These partners contribute to the implementation of chronic disease strategies and education of the general public. Decision-makers include elected officials who have the ability to modify environmental approaches that support adoption of healthy individual behavior. Members of the general public are ultimately responsible for their individual health behaviors, which can contribute to reductions in chronic disease risk and improvements in the management of existing diseases.

The overarching goal of external communications related to the state's chronic disease prevention and control is to increase the number of state decision-makers, health partners and the general public that are aware of the burden of chronic disease, the strategies to reduce and control chronic disease, and the impact of chronic disease work in Kansas.

This goal will be addressed using multiple strategies including the following:

- Development and distribution of fact sheets and informational briefs concerning chronic disease burden, risk factors, risk reduction strategies and the impact of reduction strategies;
- Posting information about chronic disease burden, risk factors and reduction strategies, and impact on chronic disease organizations' Facebook and Twitter feeds, websites, newsletters and blogs;
- Development and distribution of news releases concerning chronic disease burden, risk factors, reduction strategies and the impact of reduction strategies;
- Using television, radio, online and billboard advertising (as funding allows) to promote tobacco cessation, cancer screenings and sodium reduction; and
- Conducting webinars and conference calls with health partners and decision-makers to discuss chronic disease burden, risk factors, reduction strategies and the impact of reduction strategies.

The complete Kansas Chronic Disease Plan will be distributed through the Kansas Chronic Disease Summit, partner health organizations' websites and a Kansas Chronic Disease website (to be developed). Highlights of the Plan will be distributed in articles to state health publications and through presentations at state health conferences.

Communication is a key element to any successful plan. The Kansas Chronic Disease Plan will be a working document that individuals refer to frequently, make adjustments to as needed and strive to implement. These actions are likely to occur as our partners will be continually informed of the issues, the strategies and the progress of our coordinated chronic disease approach.

Glossary

BRFSS - Behavioral Risk Factor Surveillance System
CDAK - Chronic Disease Alliance of Kansas
CDC - Centers for Disease Control and Prevention
CHD - coronary heart disease
CSA – Community Supported Agriculture or Company Supported Agriculture
DSMP - Diabetes Self-Management Program
EBT- Electronic Benefit Transfer
EHR - Electronic Health Records
FTE - full time equivalent
KanCare – Kansas Medicaid Program
KCP - Kansas Cancer Partnership
KDHE - Kansas Department of Health and Environment
KFIT - Kansas Fitness Information Tracking
KFMC - Kansas Foundation for Medical Care (serves as the quality improvement organization and regional extension center)
KOHP- Kansans Optimizing Health Programs
KQOC - Kansas Quality of Care
KSDE – Kansas State Department of Education
KSU- Kansas State University
KU - University of Kansas
LMIKS – Let’s Move in Kansas
OHK - Oral Health Kansas
QOC– Quality of Care
ROI – Return on Investment
SMART - specific, measurable, achievable, realistic and time-bound
SFMNP- Senior Farmers’ Market Nutrition Program
TFKC - Tobacco Free Kansas Coalition
YRBS - Youth Risk Behavior Survey
YTS - Youth Tobacco Survey



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