

Healthy Kansans 2010

September 2006





Roderick Bremby Secretary Kansas Department of Health and Environment

Howard Rodenberg, MD, MPH State Health Officer and Director, Division of Health Kansas Department of Health and Environment

Funding for the *Healthy Kansans 2010* project was provided by the Kansas Health Foundation, Wichita, Kansas. The Kansas Health Foundation is a philanthropic organization whose mission is to improve the health of all Kansans.



KATHLEEN SEBELIUS, GOVERNOR

Dear Fellow Kansans:

For the past year, we have been working to improve the health of all Kansans. Healthy Kansans 2010 builds on a comprehensive, nationwide health promotion and disease prevention agenda that's focused on increasing the quality of life and eliminating health disparities between residents.

As we face the health challenges of today, we are mindful of the lessons learned in combating the diseases that plagued Kansas over 100 years ago. While today's issues may be different, the approach used to control disease is much the same. Through sound leadership, partnership, and implementation of specific strategies, Kansas can once again rise to the challenge of reducing premature death and improving the quality of life for all.

Kansas Department of Health and Environment Secretary Roderick Bremby joins me in presenting these recommendations to the citizens of this state. The recommendations developed through Healthy Kansans 2010 address infectious disease, nutrition, immunizations, maternal and child health, injury prevention, environmental modification, and chronic conditions. These recommendations will assist health providers, Kansas communities, organizations and the state in encouraging changes in individual behavior.

I challenge all Kansans to help turn this plan into action. Together we can successfully address health issues in the state and make Kansas an even better place to call home.

Sincerely yours,

Kathleen Sebelius

Governor of the State of Kansas

in Sebelius

Table of Contents

Message from the Governor	ii
Foreword	iv
Our Past	1
Our People	5
The Process	10
Priorities	14
Reducing and Eliminating Health and Disease Disparities	16
System Interventions to Address Social Determinants of Health	18
Early Disease Prevention, Risk Identification and Intervention for Wo	men,
Children and Adolescents	20
Our Future	28
Contributors	30
Resources	35

Foreword

There is something special about Kansas. In the age of the "concrete jungle" where green space is a rarity, Kansas retains much of its wide-open prairies. Kansans have room to explore, and share in what the land has to offer. Rolling hills, lakes and waving fields remain minutes from bustling urban centers rich with culture and vitality. Those of us calling the Sunflower State home admire the pioneering spirit of our ancestors, and recognize to this day that same spirit in each of our neighbors. Over the past 100 years, Kansas has adopted technological advancements in business, industry, and medicine. This growth is witnessed in our growing population and the addition of new peoples and cultures to the fabric of our state. As we embrace this growth, we must be mindful of and prepared to face the changes associated with this exciting time.

In public health, Kansas has been at the forefront of change. Dr. Samuel J. Crumbine led the early charge in Kansas to improve sanitation and prevent disease. His many reforms included abolishing the public drinking cup to curb the spread of tuberculosis, discouraging the practice of public spitting, and pushing for policies to improve public drinking water. While the diseases that Dr. Crumbine and others in the public health profession at the time battled may be different than those of today, all require sound strategies and recommendations for curbing their growth.

Today, Kansas is faced with new challenges in health. Heart disease, cancer, stroke, respiratory conditions, and unintentional injuries are the top killers of our citizens. Like the first Kansas State Board of Health, which in 1885 set recommendations and strategies to address the health issues of the time, the Healthy Kansans 2010 process developed strategies and recommendations to combat these leading health issues. Through partnerships with health providers, organizations, communities, and the state, the recommendations developed through *Healthy Kansans 2010* will encourage systematic change to reduce health risks. Changing behavior, improving the built environment, and strengthening the infrastructure that supports positive heath outcomes are key components of the recommendations made through Healthy Kansans 2010.

As we move forward into the new century of public health in Kansas, we are mindful of our past. We hope that the recommendations and strategies put forward in this report will secure a healthy and prosperous future. It is time for all Kansans to call upon that pioneering spirit that resides within us to explore new and healthier ways to live our lives.

~ Howard Rodenberg, MD, MPH, State Health Officer

"Hundreds of thousands of lives are annually prematurely cut short, that might be prolonged for years were the people instructed in sanitary matters, and an effective organization in operation to look after the sanitary conditions of the people....

"Let Kansas take the lead in sanitary reform, as she has in all progressive movements of the last quarter of a century".

- First Annual Report, Kansas State Board of Health, 1885



Blue Mound School, Kansas State Historical Society

Our Past

That would have been the priorities of a Healthy Kansans 1890 planning process? Mortality statistics for 1880 showed a nation struggling with infectious, preventable diseases and a high infant and child mortality rate. "Consumption" (tuberculosis), diphtheria, diarrheas and dysentery, typhoid fever, malarial fevers, scarlet fever, and whooping cough took the life of thousands in this country. The life expectancy of Americans was approximately 40 years. The state of Kansas was no different. It was soon realized that improved sanitation was key to controlling these infections. And so in 1885,

"The life of men under the most favorable sanitary conditions should be prolonged to the age of 80 to 100 years; yet the mortuary record of 1880 shows that of the 756,893 deaths, more than one-half, or 478,072, were children under 5 years of age."

- Kansas State Board of Health First Annual Report, 1885

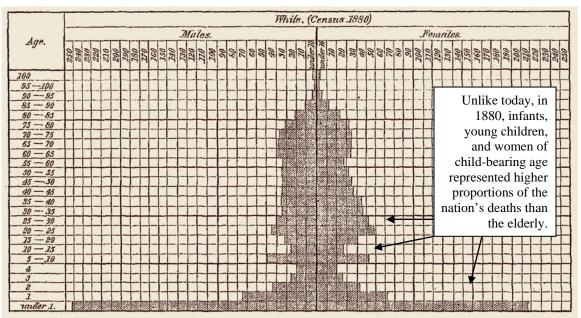
the inaugural report of the Kansas State Board of Health focused on recommendations to improve sanitation in the state of Kansas and improve the health of its residents. In its report, the Board stated, "it is possible to greatly elevate the standard of health, by looking after the sanitary condition of our State, and thus save annually many valuable lives."

Table 1. United States Leading Causes of Death, 1880				
Cause	Number of Deaths (Registered States)	Percent of Known Causes of Death		
Consumption (Tuberculosis)	91,270	13.1%		
Pneumonia	63,053	9.1%		
Diphtheria	38,143	5.5%		
Heart disease	26,068	3.8%		
Cholera infantum	24,983	3.6%		
Typhoid fever	22,854	3.3%		
Malarial fever	20,231	2.9%		
Croup	17,966	2.6%		
Convulsions	17,844	2.6%		
Scarlet fever	16,388	2.4%		

Most of these ten leading causes of death, devastating to the population of the mid to late 19th century, were completely eliminated as a factor in premature death in the decades following. By 1960, only two (heart disease and pneumonia/ influenza) remained in the top ten causes of death for Kansas.

Mortality records (see proportion of deaths by age group, Figure 1) from this time highlight the problem of premature death. The infant mortality rate was approximately 20 times as high as it is today, and nearly one quarter of all deaths were among infants, compared to approximately 1% of all of today's deaths.

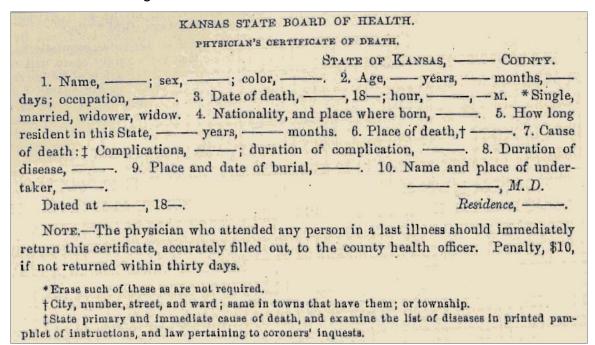
Figure 1. 1880 Proportion of White Deaths per 1,000 Deaths by Age or Age Group United States, Includes Data from Major Cities and States where Race is Known



U.S. Census Bureau

Improved health statistics for Kansas were also a concern. In its report to the Governor, the Board explained, "We think every intelligent citizen must see the importance of accurate vital and mortuary statistics." In 1885, the Board adopted the state's first vital records certificates, including birth, death, and school vaccination forms.

Figure 2. Kansas Certificate of Death Form, 1885



Kansas State Board of Health, 1885

Childhood immunization was also a concern. The Board of Health passed a resolution requiring smallpox vaccination for school entry, though this was not without controversy. Although by 1885 vaccination had been successfully practiced worldwide for nearly 90 years, there were vocal opponents to compulsory vaccination, even on the State Board of Health itself. One member urged a local school board to refuse to carry out the order, explaining, "Personally, I cannot comply with such an order; experience has taught me better. They cannot disease my child with the pus of a brute, while God sees fit to make its cheek bloom with health..." (Kansas State Board of Health, 1885).

Figure 3. Compulsory School-Entry Vaccination for Smallpox

FOR VACCINATION.

Resolved, 4th, That, by the authority vested in this Board, it is hereby ordered, that on and after December 1, 1885, no pupil shall be admitted to any public school in this State without presenting satisfactory evidence or proper and successful vaccination.

Kansas State Board of Health, 1885

These Kansas pioneers of public health paved the way for today's health prevention and wellness professionals, sharing many of the same passions and challenges. The first Kansas State Board of Health understood the value of prevention, but also faced many struggles. These included the lack of adequate funding, limited support for their recommendations, difficulty passing progressive legislation to support public health policy, and the need for accurate statistics for priority-setting.

Figure 4. Dr. Samuel J. Crumbine (1862 – 1954)



Kansas State Historical Society

In time, Kansas gained the upper hand in controlling these diseases through implementation of recommendations to improve sanitation and dramatically reduced the number of deaths in Kansas. In 1904, Dr. Samuel J. Crumbine was appointed Secretary of the Board of Health and remained in that position for 20 years. He implemented specific interventions statewide to improve sanitation and prevent disease. His many reforms included abolishing the public drinking cup and hand roller towel racks to curb the spread of tuberculosis, waging a war against the common housefly as a public health

menace, discouraging the practice of public

Figure 5. Public Message



Kansas State Historical Society

spitting, and establishing policies to improve the quality of the state's drinking water supplies. Dr. Crumbine went on to serve at the national level and is regarded as one of the most influential public health clinicians of the last century.

While times have changed, the need to remain diligent in the face of disease has not. Over 120 years later, Kansas is faced with another public health challenge: the rise in chronic disease and associated risk factors. Yet again, the state is faced with thousands of early deaths due to preventable diseases. And once again, Kansas has the opportunity to implement progressive and proven interventions to increase the years of quality and healthy life for her citizens.

"When the gospel of prevention shall have been effectually preached, and its doctrines embraced by the people, the medical hero will not be he only who sacrifices his life in ministering to those dying...but he also who shall teach the people how to prevent these diseases."

Kansas State Board of Health, First Annual Report, 1885

"Kansas with her freedom and broad prairies, with the memories of John Brown and his heroic struggle, seems naturally the State to seek."

- George T. Ruby, New Orleans Weekly Louisianian, April 26, 1879



Grant School Students, Kansas State Historical Society

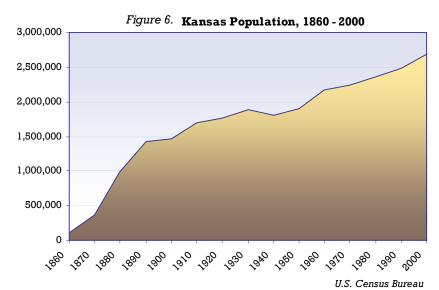
Our People

As the face of disease has changed over the past century, so has the demographic and social fabric of our state. Just as Kansas was a destination for immigrants in the late 1800s, today it is home to an increasing minority of new immigrants as well as multi-

Kansans. Since
1885, the population
of Kansas has
grown. Kansans
represent a myriad of
cultures, races,
ethnicities and
backgrounds.

generational

Kansas was admitted as a state in 1861.
Between 1860 and



1880, the population of Kansas exploded, increasing by a factor of nine. In 1880, Kansas was the 20th most populous of 47 states and territories, outranking California by 130,000

people. Since 1880, Kansas' population has steadily increased, though now it ranks 33rd in size (Fig. 6).



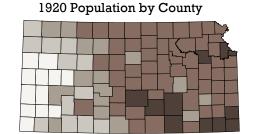
Figure 7. 1880 Population Density

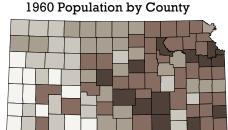
U.S. Census Bureau

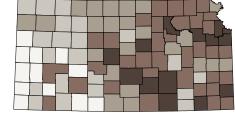
LEGEND

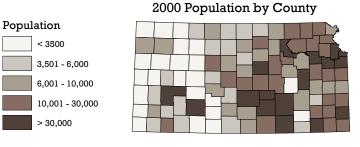
Similar to today, Eastern Kansas was more densely populated in 1880 than Western Kansas, though the population was relatively evenly distributed and urban centers had yet to fully develop. (See Figure 7). For example, Jewell County, now a "Frontier" County, was larger than Johnson County. The largest counties, those with populations over 20,000, included Leavenworth, Shawnee, Atchison, Cherokee, Douglas, Cowley, and Sumner. Throughout the last century, Kansas' population has become more concentrated in metropolitan areas (e.g., Kansas City, Wichita) and regional centers (e.g., Salina, Hays, Garden City) (Figure 8.)

Figure 8. Population by County, Selected Years









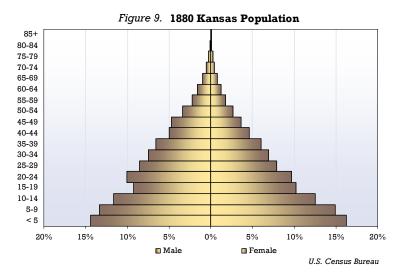
U.S. Census Bureau

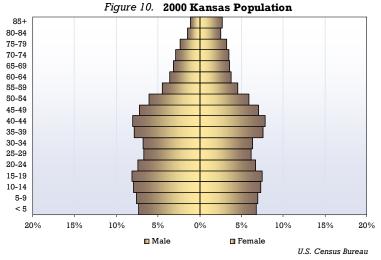
Not only has the population distribution in Kansas changed over the past 100 years, but the makeup of the population has also evolved. A constant factor in this change is the role health plays in a population's number and years of healthy life from infancy through old age. For example, the effects of infant mortality and premature deaths are apparent in

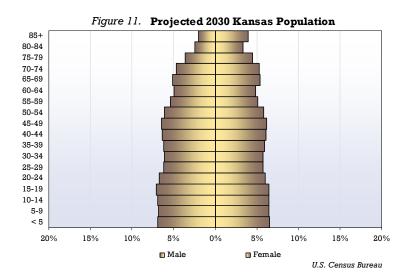
the age population distribution of 1880 (Figure 9). According to the 1880 Census, less than 2% of the population was 65 years or older compared to 13% in 2000. An even smaller fraction of the population, 0.04%, was 85 years or older versus 1.93% in 2000.

The 2000 Kansas population is more evenly distributed across the age groups, indicating increased longevity (Figure 10). Longevity is a function of advances in health, nutrition, and sanitation. Most prominent among these factors are immunizations and the provision of clean drinking water, both achievements of public health. The "bump" in the middle of the 2000 graph represents the Baby Boomer generation.

In 2030, the population will be even more flatly distributed across the age groups with projected increases in life expectancies





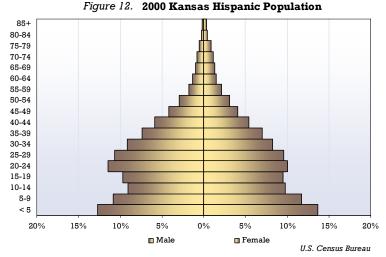


and the Baby Boomer generation well into their senior years (Figure 11). An estimated one in five Kansans will be aged 65 years or older, and one in ten will be 75 or older.

Understanding the characteristics of our population – not only age, but also race/ethnicity,

socioeconomic status and more – will help us appropriately target each population group for greatest gains in quality and years of healthy life.

For example, racial and ethnic minorities in Kansas have younger population distributions than Whites.



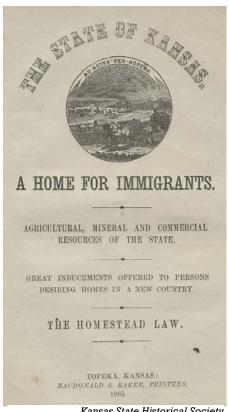
This is particularly true of the Hispanic/Latino population (2000 Census, Figure 12), due to the immigration of young adults and families and higher-than-average birth rates. In 2000, 43% of Hispanic/Latinos were under age 20 Figure 13. Immigration

years, while only 3% were 65 years or older.

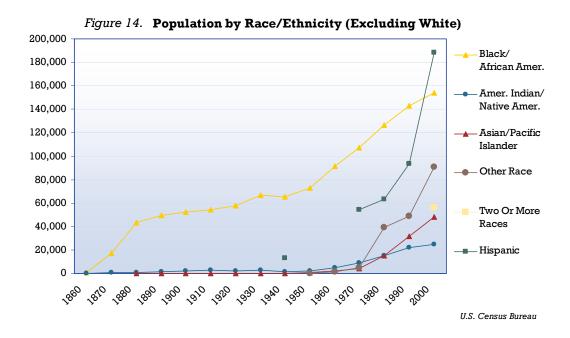
In 1880, Kansas was a land of immigrants (Figure 13). Twelve percent were foreign-born, compared to 5% of the population in 2000. Most of 1880-Kansas was White (96%). Over the past 120 years, Kansas has become increasingly racially and ethnically diverse. In 2000, 13.9% of Kansans were a racial/ethnic minority; this has increased to nearly one in five Kansans (18.4%) for 2005.

In both Kansas and the United States, Hispanics surpassed Blacks in the 2000 Census as the largest minority group (Figure 14). From 1980 to 2005, Hispanics in Kansas increased over threefold from 63.339 to 228.250. The 2000 Census was also the first time residents could select multiple races to describe themselves.

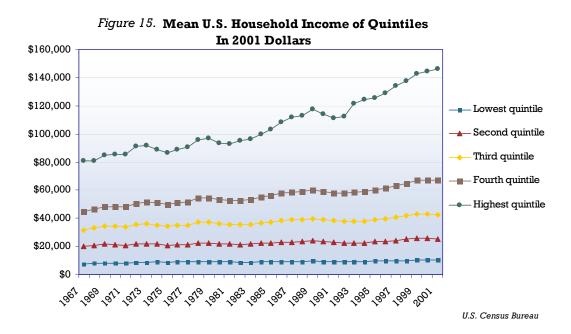
Pamphlet



Kansas State Historical Society



In addition to becoming more racially and ethnically diverse, the population of the U.S. and Kansas is becoming more economically disparate. Thirty-five years ago, the lowest earning households earned 8 times less than the highest earning households; today they earn 15 times less (Figure 15).



As the trends indicate, the Kansas of 2010 and beyond will be an even greater patchwork of peoples, needs, and cultures than exist today. Health education, public health, and prevention initiatives must find proven interventions and explore promising practices for serving these populations.

"We succeed only as we identify in life, or in war, or in anything else, a single overriding objective, and make all other considerations bend to that one objective."

- Dwight D. Eisenhower, speech, April 2, 1957



The Process

Throughout 2005, a group of Kansans representing multiple disciplines and organizations came together to identify and adopt health priorities to improve the health of all Kansans. This group reviewed population characteristics and health information describing where we have come from, where we are now, and where we appear to be headed. This examination provided the impetus for priority-setting and identifying proven and promising recommendations to encourage change and improve the health of all Kansans in 2010 and beyond.

Healthy Kansans 2010 builds on a comprehensive, nationwide health promotion and disease prevention agenda, Healthy People 2010. Healthy People 2010 is designed to achieve two overarching goals:

- (1) **Increase quality and years of healthy life**. The first goal is to help individuals of all ages increase life expectancy *and* improve their quality of life.
- (2) **Eliminate health disparities**. The second goal is to eliminate health disparities among different segments of the population by specifically targeting the segments that need to improve the most.

Healthy People 2010 offers a simple but powerful idea: Give our country clear health objectives in a way that allows diverse groups to combine their efforts and work together

as a team. *Healthy People 2010* is the basis for coordinated public health action across the country on the national, state, and local level. *Healthy Kansans 2010* is Kansas' corollary to *Healthy People 2010*.

These Healthy People 2010 goals are supported by 467 specific objectives in multiple health focus areas (Figure 16). A review of Kansas trends, needs, and strengths in each of the focus areas provided a foundation for the Healthy Kansans 2010 process.

The Healthy Kansans 2010 priority-setting process focused upon Healthy People's 10 Leading Health Indicators (Figure 17), a

Figure 16. Healthy Kansans 2010 Health Focus Areas

- Maternal Infant Child
 Health
- Oral Health
- Hearing
- HIV & STD
- Family Planning
- Arthritis
- Childhood & Adult
 Immunization
- Disability
- Environmental Health Public Health
- Nutrition and Physical
 Activity
- Respiratory Health

- Occupational Health
- Vision
- Heart Disease and Stroke
- Diabetes
- Mental Health
- Substance Abuse
- Injury and Violence
- Cancer
- Tobacco
- Chronic Kidney Disease
- Public Health
 Infrastructure
- Access to Care

snapshot of health in the first decade of the 21st century. These indicators reflect major public health concerns and were chosen based on their ability to motivate action, the

availability of data to measure progress, and their relevance as broad public health issues. The Leading Health Indicators illuminate individual behaviors, physical and social environmental factors, and important health system issues that greatly affect the health of individuals and communities.

Kansas' performance on the 10 Leading Health Indicators and their corresponding objectives is given in Table 2. Kansas meets the Healthy People 2010 goal only for the Environment Quality ozone and Immunization objectives, and lags behind these aims for all other objectives.

Figure 17. 10 Leading Health Indicators

- Physical Activity
- Overweight and Obesity
- Tobacco Use
- Substance Abuse
- Responsible Sexual Behavior
- Mental Health
- Injury and Violence
- Environmental Quality
- Immunization
- Access to Health Care

Table 2. Kansas' Performance on 10 Leading Health Indicators					
Objective	Kansas Rate	HP2010 Goal			
Physical Activity					
Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.	70% (2005 KS Youth Risk Behavior Surveillance System, grades 9-12)	85%			
Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.	33% (2003 KS BRFSS)	50%			
Overweight and Obesity					
Reduce the proportion of children and adolescents who are overweight or obese.	11% (ages 12-18, 2002 KS Youth Tobacco Survey)	5% (ages 12-19)			
Reduce the proportion of adults who are obese.	24% (2005 KS BRFSS)	15%			
Tobacco Use					
Reduce cigarette smoking by adolescents.	21% (2005 KS Youth Risk Behavior Surveillance Survey, grades 9-12)	16% (grades 9-12)			
Reduce cigarette smoking by adults.	18% (2005 KS BRFSS)	12%			
Substance Abuse					
Healthy People: Increase the proportion of adolescents <i>not</i> using alcohol or any illicit drugs during the past 30 days.	69% of 6 th , 8 th , 10 th , and 12 th graders reported <i>not</i> using alcohol at least once in the past 30 days 91% of 6 th , 8 th , 10 th , and 12 th graders reported <i>not</i> using marijuana at least once in the past 30 days (2005 Kansas Communities That Care Survey Youth Survey)	89%			
Reduce the proportion of adults engaging in binge drinking of alcoholic beverages during the past month.	12% (2005 KS BRFSS)	6%			
Responsible Sexual Behavior					
Increase the proportion of adolescents who abstain from sexual intercourse.	55% (Abstinence only - 2005 KS Youth Risk Behavior Surveillance System, grades 9-12)	95% (includes abstinence or condom use if sexually active)			
Mental Health					
Increase the proportion of adults with recognized depression who receive treatment.	No Kansas data available that is directly comparable to HP2010 target.	50%			

Table 2. Kansas' Performance on 10 Leading Health Indicators					
Objective	Kansas Rate	HP2010 Goal			
Injury and Violence					
Reduce deaths caused by motor vehicle crashes.	17.5 deaths per 100,000 population* (2004 Vital Statistics, KDHE)	9.2 deaths per 100,000 population*			
Reduce homicides.	4.3 homicides per 100,000 population* (2004 KS Vital Statistics)	3.0 homicides per 100,000 population*			
Environmental Quality					
Reduce the proportion of persons exposed to air that does not meet the U.S. Environmental Protection Agency's health-based standards for ozone.	0% (EPA Aerometric Information Retrieval System)	0%			
Immunization					
HP2010 Objective: Increase the proportion of young children who are fully immunized (4:3:1:3:3 series)	84% (4:3:1:3:3 series – 2005 National Immunization Survey)	80% (4:3:1:3:3 series)			
Increase the proportion of non- institutionalized adults aged 65 years and older who are vaccinated annually against influenza.	66% (2005 KS BRFSS)	90%			
Increase the proportion of adults aged 65 years and older ever vaccinated against pneumococcal disease.	67% (2005 KS BRFSS)	90%			
Access to Health Care					
Increase the proportion of persons with health insurance.	87% (2005 KS BRFSS)	100%			
Increase the proportion of persons who have a specific source of ongoing primary care.	84% (2005 KS BRFSS)	96%			
Increase the proportion of pregnant women who begin prenatal care in the first trimester of pregnancy.	87% (2004 Vital Statistics, KDHE)	90%			

^{*}All death rates are age-adjusted to the year 2000 standard population.

The key question asked by Healthy Kansans participants was: What can be done to impact multiple leading health indicators and thus improve the health of all Kansans? An initial group of 40 people representing a broad spectrum of Kansas organizations engaged in the decision-making process where they considered research, sorted information, and defined key cross-cutting or health-themed issues. Another 150 community representatives, experts, and others with a passion for population health participated in one or more of six groups that investigated these issues in depth. Based on all these discussions, crucial action steps were identified, prioritized, and recommended.

"Where there is no vision, there is no hope."

- George Washington Carver



Priorities

The priorities of the first Kansas State Board of Health in 1885 – as well as Boards serving in the decades to follow – focused on the prevention of infectious disease through sanitation, improved nutrition, immunizations, better maternal and child health, and environmental modifications. Premature death and poor health today are more typically a result of chronic conditions and risky behaviors. The majority of today's health problems can be prevented – or at least delayed significantly – through individual behavioral changes supported by health providers, our communities, the physical environment where we live and work, the health system, and our local and state policies. *Healthy Kansans 2010* focuses on how providers, organizations, communities, and the state can encourage and provide opportunities for improving health outcomes in Kansas.

Healthy Kansans 2010 resulted in a set of recommendations for change that, if implemented, will markedly improve the health of all Kansans. Participants in Healthy Kansans 2010 identified three cross-cutting issues that are

Infectious diseases, the leading causes of death in 1880, are no longer a significant factor in premature death. Today, the focus is to respond to the risk factors associated with chronic diseases.

Healthy Kansans 2010 concentrates on steps providers, organizations, communities and the state can take to encourage systems and policy change and improve the health of Kansans.

common to multiple health focus areas and will result in the improvement of multiple leading health indicators:

- Reducing and Eliminating Health and Disease Disparities: This cross-cutting issue builds on one of the two national Healthy People goals. In order to improve the health of *all* Kansans, it is necessary to reduce and eliminate health and disease disparities among segments of the population that need to improve the most. Health disparities stem from many factors, including race/ethnicity, age, gender, geography (rural/urban), social and economic status, and disability status.
- System Interventions to Address Social Determinants of Health: "Social determinants" issues such as income, education, and social supports impact the health of Kansans. Recommendations that address social determinants in tandem with traditional health issues such as disease and injury are essential for long-term and sustainable improvement.
- Early Disease Prevention, Risk Identification, and Intervention for Women, Children and Adolescents: Preventing potential health problems at the earliest possible point in life is crucial to increasing the number and quality of years of healthy life for Kansans.

A *Healthy Kansans 2010* workgroup was formed around each of the above issues. Each workgroup was charged to develop recommendations for major policy and system changes that

- Can be implemented by public, private, and/or non-profit sectors.
- Will lead to substantial changes in the issue identified (e.g., reducing and eliminating disparities)
- Will impact two or more of the 10 Leading Health Indicators

Workgroups were instructed to develop recommendations for the following areas:

- Overall impact
- Improved integration and/or better interface of existing initiatives
- Public communications
- Improved surveillance and data needs
- Enhancement of current workforce
- Broad approaches impacting multiple populations in a blanket approach
- Approaches highly targeted towards specific populations

Reducing and Eliminating Health and Disease Disparities

Healthy Kansans 2010 adopted a comprehensive view of health disparities, with the intention of elevating the priority status of health disparities. Health disparities are not only a function of race and ethnicity, but are influenced by other factors, such as disability, age (particularly senior adults), gender, geography, and socioeconomic status. The term "underrepresented groups" represents all of these population segments.

Despite prevention, early detection, and treatment of diseases that allow us to reduce premature morbidity

Figure 18. Scope of Healthy Kansans 2010 Disparities

- Racial/ethnic
- Disability
- Age (particularly senior adults)
- Gender
- Geography (rural/urban)
- Socioeconomic status (education, income, insurance/health benefit coverage)

and mortality, members of racial/ethnic minorities and other underrepresented groups have benefited less than others from these interventions. Lower socioeconomic and education levels, inadequate and unsafe housing, lack of access to care, quality of care, and living in close proximity to environmental hazards disproportionately affect these populations and contribute to poorer health outcomes.

Disparities are evident in nearly every health indicator. The proportion of people who report their health as "fair" or "poor" versus "good", "very good", or "excellent" is often used as a measure of overall health status. Percentage of Kansas adults reporting "fair" or "poor" health status by selected population groups is offered as one example of disproportionate health outcomes (Figure 19).

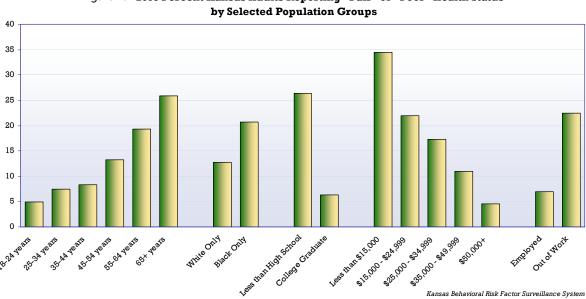


Figure 19. 2005 Percent Kansas Adults Reporting "Fair" or "Poor" Health Status

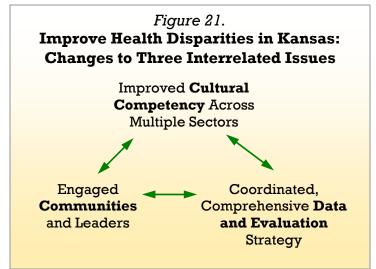
Systems-level changes to three interrelated issues were identified to address health disparities among under-represented groups and improve the health of Kansans like John and his family (Figure 20):

- Engaged communities and leaders: Invest in community capacity-building, utilizing self-identified community assets to promote planning, implementation, and evaluation of community-based interventions.
- Coordinated and comprehensive data and evaluation strategy: Develop a coordinated statewide strategy regarding collection, dissemination and utilization of health data, and promote participatory evaluation.

Figure 20. A Story of Disparities: John and His Family

John is a new immigrant to Kansas. His family does not speak English. His wife is expecting, and he has one child with special healthcare needs. John works long hours to provide for his family at a job where workplace injuries are common. John's community is rural, predominantly white, has no dentists or mental health providers, and is served by one physician three days a week.

Though John is a fictitious Kansan, the needs described are real and faced by many Kansans daily. Healthy Kansans 2010 recommendations target the disparate access to services and health needs of Kansans like John and his family.



• Improved cultural competency: Promote cultural sensitivity, specificity, and competency through adoption of policies and actions at multiple levels, including professional, organizational, and system-wide.

Figure 22. What is Cultural Competency?

Cultural competence: Having the capacity to function effectively as an individual and an organization within the context of the cultural beliefs, behaviors and needs presented by consumers and communities. An ability to relate to others in a trustworthy manner, with respect for individual cultural differences.

Achieving cultural competency is a process rather than an outcome.

Cultural sensitivity: The ability to be appropriately responsive to the attitudes, feelings, or circumstances of groups of people that share a common and distinctive racial, national, religious, linguistic or cultural heritage.

Cultural specificity: The creation of an environment where the identity and experiences of people in a specific group or culture are recognized, explored, and accepted. Related to health promotion and disease prevention, participants see their culture and images of themselves represented in the messages.

System Interventions to Address Social Determinants of Health

Social determinants of health refer to social factors that are correlated with health status and health outcomes. Although a number of social determinants were considered (e.g., quality housing, poverty, transportation, literacy, etc.), social determinants can be summarized by two variables:

- Class
- Social supports and social connectedness

In this country "class" is largely determined by income and education. Thus, *Healthy Kansans 2010* identifies the following disparities related to social determinants:

- Income
- Education
- Social Supports

The 1995 Chicago Heat Wave is an example of how social determinants directly impacts health outcomes (Figure 23). Follow-up research by the Centers for Disease Control showed that poverty-stricken neighborhoods without social supports had more heat-wave deaths than high-poverty neighborhoods with tight social connections.

There are four points of opportunity where policy or systems can intervene to affect social determinants of health:

Decrease social stratification Figure 23. Illustration of the Impact of Social Determinants on Health: 1995
Chicago Heat Wave

On July 13, the temperature in Chicago hit 106 degrees with a heat index of 120 degrees. For one week, the heat persisted, with temperatures between the 90s and low 100s. An estimated 739 people died from July 14th through July 20th due to the heat wave. Subsequent studies showed that risk factors included not only lack of air conditioning or being sick; lack of social supports were also a significant factor.

CDC identified these individual-level risk factors for heat wave victims:

- Living alone
- Not leaving home
- Lacking access to transportation
- Being sick or bedridden
- Not having social contacts nearby
- Not having an air conditioner
- Decrease specific exposure to health-damaging factors suffered by people in disadvantaged positions
- Seek to lessen the **vulnerability** of disadvantaged people to the health-damaging conditions they face
- Intervene through **healthcare** to reduce the unequal consequences of ill-health and prevent further socio-economic degradation among disadvantaged people who become ill

The framework for *Healthy Kansans 2010* Social Determinants recommendations calls for improving access to care, cardiovascular risk factors, and prevention/wellness by reducing disparities in income, education, and social supports (Figure 24).

Key recomendations regarding the social determinants of health are as follows:

System-level changes in health care coverage: Address the ability of the state to create incentives and remove barriers to provide coverage to previously

Access to Care
Cardiovascular Risk Factors
Prevention/Wellness

Social Supports

Figure 24. Healthy Kansans 2010 Social Determinants Framework

uninsured/underinsured individuals and improve quality of care. Specific examples include the following:

- Developing long-term contracts, incentives, and/or regulations oriented around prevention and wellness
- Better incorporation of data collection and monitoring of prevention/wellness outcomes
- Identification and system barriers for increasing insurance to under-/uninsured Kansans
- Investigate and implement strategies to improve coverage and encourage participation in prevention/wellness activities among small business employees

Increased use of care coordination and case management: Encourage broader implementation of care coordination and case management models, particularly among disadvantaged populations. These processes result in increased access to quality care, improved social connectedness, and better support for prevention/wellness activities. Specific examples include:

- Expand use of health promotoras at the neighborhood level
- Expand use of gatekeeper (i.e., care coordinator) strategies using community volunteers to identify and augment referral services
- Evaluate effectiveness of care coordination pilot program for Medicaid patients
- Implement jumping-off points for navigating the health care system (e.g., 2-1-1 approach)

Schools as a locus of health: Two types of related action steps were identified:

- Expand the reach of health-related school programs and services (e.g., school nurses, coordinated school health program, federally-funded school health centers).
- Further develop school districts as point for social connectedness and community engagement.

Promote health/wellness throughout the community: Encourage further system and organization level change in faith-based communities, businesses, organizations, community groups, and population specific groups/programs to promote healthy lifestyles, prevention, and wellness among all socioeconomic groups.

Data, social marketing, and outcomes related to social determinants: Better integrate social determinants into data collection and reporting, social marketing, public health interventions, and performance measures/evaluation to increase awareness and promote system changes related to social determinants of health.

Environment that supports adequate food and improved nutritional choices:

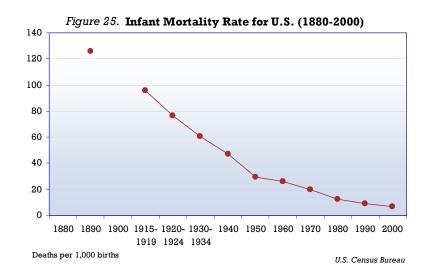
Promote community and industry structural supports for an environment that supports healthy and culturally appropriate food and healthy nutritional choices, particularly within low socio-economic groups.

Community development and engagement through Health Action Zones: Develop Health Action Zones (HAZ) in communities as a means to break through barriers, improve health inequities, and increase social supports.

Built environment: Engage municipalities, industry (workplaces, developers), and universities to create built environments that promote health and wellness and social connectedness while enhancing opportunities for economic development.

Early Disease Prevention, Risk Identification and Intervention for Women, Children and Adolescents

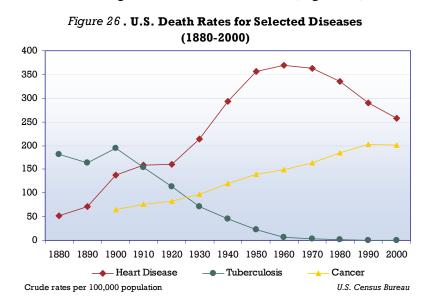
In the late 1800s, more than one in ten U.S. infants died before their first birthday, and one in five children born died before reaching the age of 6. Due to preventive efforts, early intervention strategies, and improved medical



treatments and technologies (e.g., immunizations, improved sanitation, prenatal care, antibiotics), infant mortality and child death rates plummeted in the last 120 years, though there is still room for improvement (Figure 25).

Of the top 10 causes of death in 1880, all but two have dropped from the list of leading causes: pneumonia/influenza and heart disease. Tuberculosis, the number one cause of death in 1880, disappeared from the leading causes chart in the 1950s (Figure 26).

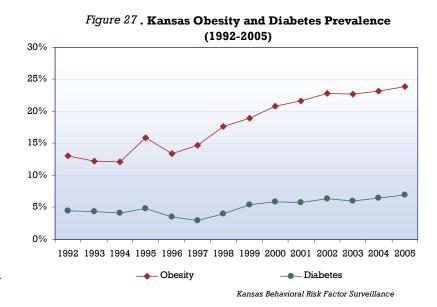
Pneumonia/influenza topped the leading-causes chart for much of the early 1900s, and then experienced declining rates. Heart disease, on the other hand, has been the leading cause of death for most of the last century. Though Kansans dying from heart disease today are



older than their 1880-counterparts, Kansans lose an estimated 30,000 years of potential life each year to heart disease (Kansas Department of Health and Environment). Since 1880, heart disease has been joined on the leading-causes chart by a host of other chronic diseases, including cancer, diabetes, chronic respiratory disease, cerebrovascular disease (stroke), and kidney disease.

For example, diabetes is a relatively new disease to appear as one of the 1eading causes of death. Since 1990, the number of Kansans diagnosed with diabetes has nearly doubled (Behavioral Risk Factor

Surveillance System,
Kansas Department of
Health and
Environment), leading
to ever increasing
demands on the health
care system to treat a
disease that currently
costs Kansans \$1.3
billion in direct and
indirect health care
expenditures each year



(*U.S. Diabetes Care*, American Diabetes Association, 2003). Even more alarming, is that the age of diagnosis continues to decline resulting in decreased quality of life and increases in premature death for Kansans. In 2004, Kansans lost nearly 5,000 years of life due to premature diabetes deaths. Current projections are that 1 in 3 children born today will develop diabetes in their lifetime; those odds increase to 1 in 2 among Latino children (Centers for Disease Control and Prevention).

All of these chronic diseases share the common risk factors of poor nutrition, lack of physical activity, and tobacco use. The increase in diabetes prevalence, for example, mirrors the increase in obesity over the last several years (Figure 27). Early identification of risk factors and early intervention can prevent or reverse the onset of these diseases and minimize their damaging health effects (Figure 28). For example, among people at high risk for developing diabetes, new cases can be reduced by nearly 60% through

Figure 28. A Story of Risk, Prevention, and Intervention: Carol and Her Family

Carol is smoking at the funeral dinner of her mother, who died too young of complications from diabetes. Her eyes move from one family member to another – some are overweight, some have diabetes like her mother, and some have suffered from cancer and heart disease. Carol looks at the faces of her two young children and decides unhealthy habits and early mortality will no longer be a family legacy.

Though Carol is a fictitious Kansan, the needs described are real and faced by many Kansans daily. Healthy Kansans 2010 recommendations target the health needs of Kansans like Carol and her family.

moderate increases in physical activity and weight loss (New England Journal of Medicine, February 2002).

Similarly, tobacco use remains the number one *preventable* cause of death in Kansas, resulting in more than 3,800 deaths per year. Early intervention is crucial, as almost all smokers begin smoking by age 18. While only 17% of Kansas adults are current smokers (Behavioral Risk Factor Surveillance System, 2005), the negative health impact of tobacco use is much more widespread, particularly as it affects the health of children. Approximately two-thirds of Kansas High School students and 48% of Middle School students report being exposed to tobacco smoke on a regular basis (Kansas Youth Tobacco Survey, 2002). The health costs of tobacco are enormous. Cigarette use alone currently costs Kansas \$724 million in direct medical costs, plus another \$897 million in indirect (lost productivity) costs per year (Smoking-Attributable Mortality, Morbidity, and Economic Costs [SAMMEC], Centers for Disease Control and Prevention). This includes \$153 million in Medicaid program expenditures. These costs will undoubtedly rise year by year if we fail to take action to reduce tobacco use and exposure. If current

trends continue, 54,000 children alive today will die of tobacco related causes (Campaign for Tobacco Free Kids).

As we prepare to address the leading health challenges that Kansans face today, we can draw on lessons learned in our past. Kansas leaders were successful in conquering infectious diseases by employing policy and system changes related to improved sanitation, clean water supplies, and immunization; medical advancements such as antibiotics and pharmaceuticals, and health education on personal hygiene and nutrition. The strategies that were successful in the past can be applied to combating the massive increases in chronic disease - preventing the premature loss of thousands of lives.

Early disease prevention, risk identification, and intervention efforts considered by the Steering Committee included, but were not limited to the following issues:

- Interventions with pregnant women;
- Interventions for pre-conceptional health;
- Screening programs;
- Substance abuse interventions during and immediately following pregnancy;
- Early childhood interventions (0-5 years);
- School-based initiatives (6-18 years);
- After-school programs (6-18 years);
- Chronic disease risk factors including tobacco use, physical inactivity and poor nutrition;
- Disease prevention and management programs for asthma, cancer, diabetes, cardiovascular disease, etc.;
- Immunization programs;
- Injury prevention programs intentional and unintentional; and
- Oral health interventions

Three recommendations were identified as most promising early intervention strategies to improve health status:

- 1. Assure access to health care and preventive services for children and parents. Examples of specific action steps under this recommendation include
 - Increase HealthWave eligibility for pregnant women to include all those with incomes less than the federal poverty levels. Oral health services should be included in the HealthWave benefit.
 - Promote the utilization of Registered Dental Hygienists in Head Start, schools, safety net clinics, local health departments, and long-term care facilities.

• Promote health careers at an early age. Utilize established programs with the goal of helping children age 0 to 18 understand health in their lives *and* promote careers in health.

2. Integrate efforts to affect the whole child's emotional and social well-being. Examples of specific action steps include

- Provide enhanced training to home visitors and caregivers within multiple Kansas programs (e.g., Head Start, Parents as Teachers) to provide consistent and more comprehensive screenings and interventions for physical health, mental health, emotional and social well-being, and other aspects of health.
- Train child and youth community contacts and leaders to assess and address the
 whole child, including mental health, oral health, and use of alcohol, tobacco, and
 other drugs.
- Explore expanded use of and access to the Immunization Registry to monitor whole child health.

3. **Promote the development and adoption of healthy lifestyles**. Examples of action steps are

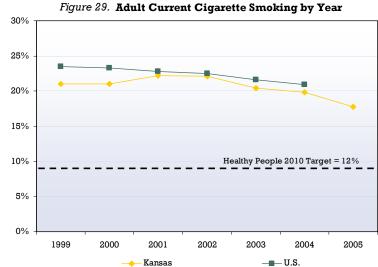
- Create a Child Wellness Charter and use social marketing techniques to provide a consistent message for use by all sectors (schools, communities, faith-based organizations, worksites, etc.).
- Develop Kansas-specific action steps related to the national goals for overweight and obesity prevention (see goals on pages 25).
- Develop and encourage communities to utilize a Healthy Communities Self-Assessment survey to evaluate the "built" environment, local policies/ordinances, and local business and government structures and support for healthy habits.

Action Steps Based on Three Cross-Cutting Priorities

Building on the three cross-cutting priorities identified, these specific issues were identified for immediate

action:

• Tobacco: Support a comprehensive tobacco prevention program to reduce the health effects of tobacco use. Though cigarette smoking has declined slightly in previous years, it is well above the Healthy People 2010 goal of 12% (Figure 29).



Kansas Behavioral Risk Factor Surveillance System

- **Disparities Data**: Routinely collect and report data on *all* segments of the population (race/ethnicity, gender, rural/urban, economic status, disability status) to identify where improvements are most needed. Nearly all health indicators demonstrate significant health disparities by race/ethnicity (see Figure 31, for example). Understanding disparities allows health efforts to target the population that needs help the most while improving the health of all.
- **Cultural Competency**: Promote culturally competent health practices among health providers and organizations.
- Overweight and Obesity: Overweight and obesity rates have increased steadily over
 - the last several years (Figure 30). Multiple workgroups recommended adopting and implementing the five national overweight/obesity prevention goals (Centers for Disease Control and Prevention):
 - 1. Increase fruit and vegetable consumption
 - 2. Increase physical activity
 - 3. Decrease "screen" time (TV, leisure computer, video games)
 - 4. Increase breastfeeding
 - 5. Balance caloric intake with expenditure
- Access: Insure access to quality health care (including oral health and mental health) and preventive services for all. While access to quality health care includes more issues than health insurance, health care coverage is one indicator of access (Figure 31).

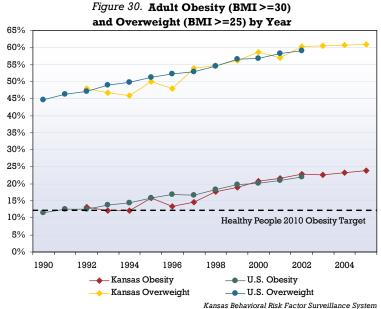
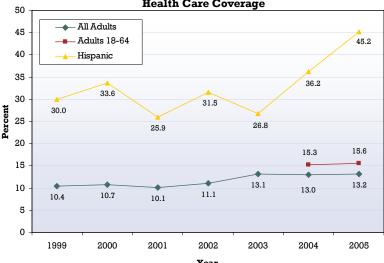


Figure 31. Percentage of Kansas Adults Who Lacked Health Care Coverage



Kansas Behavioral Risk Factor Surveillance System

Table 3 presents a few of the 200-plus specific steps for change that have been identified. To see the complete list of recommendations and action steps, please refer to the accompanying CD or the website at www.healthykansans2010.org.

Table 3. Selected Action Steps

Tobacco

Why is this important?

Twenty percent of adult Kansans smoke (compared to a Healthy People 2010 objective of 16%) contributing to 3,800 deaths annually and \$180.4 million in total Medicaid expenditures. One in eight pregnant Kansas women smoke, resulting in poor birth outcomes.

What can I do?

- If you are a smoker, contact the Kansas Tobacco Quitline at 1-866-KAN-STOP
- If you are a health provider, refer patients to the Kansas Tobacco Quitline
- Support tobacco-free policies and ordinances in your community

What can my organization or my community do?

- Adopt tobacco-free policies and ordinances
- Hold meetings and events in tobacco-free facilities and on tobacco-free grounds
- Provide smoking cessation opportunities for employees
- Encourage businesses to fully comply with youth tobacco access laws

What can our state do?

- Increase funding to the Comprehensive Tobacco Program best-practices level (\$18.1 \$44.7 million) recommended by the Centers for Disease Control
- · Pass a no-compromise, statewide clean indoor air law

Disparities Data

Why is this important?

Kansas' population is becoming increasingly diverse (e.g., the racial/ethnic minority population has more than doubled since 1980). Without targeted interventions, those with the "worst" health will continue to experience poor and declining health outcomes.

What can I do?

- Participate in valid surveys conducted by state agencies and reputable organizations
- Fill out forms (e.g., hospital admission, birth certificate, Medicare) consistently, completely, and correctly
- Make sure providers are correctly recording your race and ethnicity

What can my organization or my community do?

- Invest in improving your data collection and reporting capacity. Capture all indicators needed to
 describe the disparate needs of the population you are serving and use standardized data definitions
- Encourage collaboration between data resources
- Participate in state-local partnerships

What can our state do?

- Ensure data collected for all state programs use, at a minimum, federal race/ethnicity collection standards
- Provide data training to communities
- Create a system to monitor multiple health outcomes over the lifespan of Kansans

Table 3. Selected Action Steps

Cultural Competency

Why is this important?

Culturally competent health providers and organizations are necessary to minimize medical errors and ensure all segments of the population have appropriate health care and prevention services.

What is cultural competency?

An ability to understand and relate to others within the context of culture in a trustworthy manner.

What can I do?

- Clearly communicate your needs and your culture to your health provider
- If you are bilingual, consider becoming trained as a medical interpreter
- If you are a health provider, educator, law enforcement official, etc., attend cultural competency training

What can my organization or my community do?

- Conduct an assessment of your organizations' cultural competency
- Based on your assessment results, implement steps to improve cultural competency

What can our state do?

- · Organize, develop, and maintain a statewide cultural competency clearinghouse and resource center
- Promote strategies that improve linguistic accountability and competency, such as expanding and decentralizing health care interpreter programs

Overweight and Obesity

Why is this important?

Kansas obesity rates have steadily increased over the last decade for adolescents and adults. Obesity contributes to a number of health problems, including diabetes and heart disease. If the current trend continues, by 2020 one out of four health care dollars will pay for obesity-related treatments.

What can I do?

• Adopt the national overweight/obesity goals for you and your family, and – if you are a health provider – encourage your patients to adopt this healthy lifestyle

What can my organization or my community do?

- Adopt policies that support and encourage the national obesity goals among your employees and community members, such as provide breastfeeding-friendly workplaces and hospitals
- Create a "built" community environment that promotes physical activity and non-automobile transportation

What can our state do?

- Develop a comprehensive statewide plan for adopting and implementing the national overweight/obesity goals
- Improve statewide data tracking of overweight/obesity

Access

What can I do?

 Seek informational resources about health service options in your community and talk with your health provider about when it's appropriate to access care, particularly emergency services

What can my organization or my community do?

- Implement care coordination/case management models proven effective in other communities
- If you are a health or social services organization, expand use of lay health workers or community volunteers to augment services

What can our state do?

- Encourage, develop, and support health career pathways for all ages
- Create incentives and remove barriers to provider coverage to previously uninsured individuals and improve quality of care

"The progressive physician of the future will teach that...prevention is better than cure."

- First Annual Report, Kansas State Board of Health, 1885



Our Future

Advancements in technology, health care and public health have all been built on the dedication of those who have gone before us. Looking back 120 years, we can see the vision and wisdom of the inaugural Kansas State Board of Health. In recommendations put forward in the late 1880's, the Board recognized the need for sound strategies to curb the growth in infectious disease. While it took decades before some of their recommendations were fully accepted, today we enjoy the fruits of their work and take pride in their commitment to keeping past and future Kansans healthy.

What will we leave for future generations? We have the recommendations of experts, leaders, health providers, health educators, and community members before us. If we have the foresight to act on these recommendations and implement system wide change, we can reap the benefits of a healthy life for us, our children, and future generations.

Healthy Kansans 2010 is a call for *all* Kansans – individuals, health professionals, communities, businesses, state and local organizations – to partner together in implementing community-wide and systems-wide changes for improving our health.

To learn more about *Healthy Kansans 2010*, review the specific recommendations included with the accompanying CD-ROM and visit our website at http://www.healthykansans2010.org or contact

Office of Health Promotion
Kansas Department of Health and Environment
1000 SW Jackson, Suite 230
Topeka, KS 66612-1274
(785) 291-3742
info@healthykansans2010.org



"...a great and good work has been wrought, but much yet remains to be done."

- G.H.T. Johnson, President of the first Kansas State Board of Health in his inaugural address,
April 10, 1885

Contributors

The Office of Health Promotion, Kansans Department of Health and Environment (KDHE), was the convener of this process and worked in consultation with the Secretary of the Department of Health and Environment, the Director of the Division of Health, and the Deputy Director of the Division of Health.

The *Healthy Kansans 2010* planning process was guided by the Process Management Committee. Decisions regarding priorities were made by the Steering Committee.

Process Management Committee

Roderick Bremby, MPA, Kansas Department of Health and Environment

Jennifer Crow, JD, Office of the Governor

Doug Farmer, MPA, Kansas Department of Health and Environment

Mary Glassburner, BSEd, CFSP, Bureau of Consumer Health, Kansas Department of Health and Environment

Billie Hall, MSPH, Sunflower Foundation

Susan Kang, JD, Kansas Department of Health and Environment

Linda Kenney, MPH, Bureau for Children, Youth and Families, Kansas Department of Health and Environment

Paula Marmet, MS, RD, LD, Office of Health Promotion, Kansas Department of Health and Environment

Kim Moore, JD, United Methodist Health Ministry Fund

Richard Morrissey, MPH, Division of Health, Kansas Department of Health and Environment

Gianfranco Pezzino, MD, MPH, Kansas Health Institute

Lorne Phillips, PhD, Center for Health and Environmental Statistics, Kansas Department of Health and Environment

Howard Rodenberg, MD, MPH, Division of Health, Kansas Department of Health and Environment

Lou Saadi, PhD, Health Care Information, Kansas Department of Health and Environment

Edie Snethen, MS, Kansas Association of Local Health Departments

Chris Tilden, PhD, Office of Local and Rural Health, Kansas Department of Health and Environment

Sharon Wenger, MA, Kansas Department of Health and Environment

Carolyn Williams, Kansas Health Foundation

Process Management and Steering Committee Staff and Consultants, Action Group Facilitators

Tom Kean, MPH, Strategic Health Concepts

Karry Moore, Office of Health Promotion, Kansas Department of Health and Environment

Ghazala Perveen, MBBS, PhD, MPH, Office of Health Promotion, Kansas Department of Health and Environment

Connie Satzler, MS, EnVisage Consulting, Inc.

Brandon Skidmore, Office of Health Promotion, Kansas Department of Health and Environment

Billie Williams, Office of Health Promotion, Kansas Department of Health and Environment

Deborah Williams, MPH, MPA, Office of Health Promotion, Kansas Department of Health and Environment

Steering Committee

Lori Alvarado, Kansas Department of Social and Rehabilitation Services

Graham Bailey, Blue Cross and Blue Shield of Kansas

Gary Brunk, MPA, Kansas Action for Children

Jennifer Crow, JD, Office of the Governor

Cathy Davis, RN, PhD, UAW-Ford Community Health Care Initiative

Danielle Dempsey-Swopes, JD, Office of the Governor

Virginia Elliott, United Methodist Health Ministry Fund

Elias Garcia, Kansas Hispanic and Latino American Affairs Commission

Delia Garcia, MA, Representative, Kansas House

Billie Hall, MSPH Sunflower Foundation

Joe Harkins, Governor's Natural Resource Policy Staff

Pamela Johnson-Betts, Kansas Department on Aging

Jodi Mackey, Child Nutrition & Wellness, Kansas State Department of Education

Peggy Mast, Representative, Kansas House

Marci Nielsen, PhD, MPH, University of Kansas Medical Center

Gianfranco Pezzino, MD, MPH, Kansas Health Institute

Sandy Praeger, BSE, Kansas Insurance Department

Terri Roberts, JD, RN, Kansas State Nurses Association

David Ross, MD, Kansas Medical Mutual Insurance Company

Cindy Samuelson, Kansas Hospital Association

Elaine Schwartz, BBA, LACHA, Kansas Public Health Association

Jerry Slaughter, Kansas Medical Society

Edie Snethen, MS, Kansas Association of Local Health Departments

Andy Tompkins, MS, Kansas State Department of Education

Barbara Torkelson, Kansas Insurance Department

Donna Whiteman, JD, Kansas Association of School Boards

Carolyn Williams, Kansas Health Foundation

Steering Committee and Work Group Facilitators

We appreciate the service of several individuals who served as Healthy Kansans 2010 facilitators. Tom Kean from Strategic Health Concepts served as facilitator of the Steering Committee and provided guidance to the process. The following individuals served as facilitators of Healthy Kansas 2010 Work Groups:

Michael Fox, ScD, Department of Health and Policy Management, University of Kansas Medical Center

Paula Marmet, MS, RD, LD, Office of Health Promotion, Kansas Department of Health and Environment

Marci Nielsen, PhD, MPH, University of Kansas Medical Center

Shirley Orr, MHS, ARNP, Office of Local and Rural Health, KDHE

Connie Satzler, MS, EnVisage Consulting, Inc.

Deborah Williams, MPA, MPH, Office of Health Promotion, Kansas Department of Health and Environment

Other Contributors

Acknowledgement and appreciation are also extended to those who contributed their ideas and expertise through participating in workgroups, action groups, and providing expertise on Healthy Kansans 2010 topics.

Dyogga Adegbore, Kansas Children's Cabinet and Trust Fund

Ron Alexander, R.E. Alexander & Associates

Aiko Allen, MS, Sedgwick County Health Department

William Bandy, MD, FACS, Stormont-Vail Regional Medical Center

Karen Beckerman, Kansas Juvenile Justice Authority

Melissa Brooks, MEd, Kansas State Department of Education

William Bruning, JD, MBA, Mid-America Coalition on Health Care

Heidi Burris, Kansas Department on Aging

Sherri Buss, Harvey County Special Education Cooperative

Mary Colclazier, RT, Kiowa County Memorial Hospital

Natalie Cook, JD, Office of the Governor

Nancy Copeland Lee, RN, Kansas Foundation for Medical Care

Denice Curtis, DDS, MPH, Kansas Association for the Medically Underserved

John Cyprus, Kansas City – Chronic Disease Coalition

April Davies, Kansas Association for the Medically Underserved

Yvette Desrosiers-Alphonse, MPH, Sunflower Foundation

Cindy D'Ercole, JD, Kansas Action for Children

S. Edwards Dismuke, MD, MSPH, University of Kansas School of Medicine – Wichita

Gary Doolittle, MD, MPH, Kansas Cancer Partnership

Donna Doolin, LSCSW, Kansas Department of Social and Rehabilitation Services

James Early, MD, University of Kansas School of Medicine – Wichita

Leadell Ediger, Kansas Association of Child Care Resource and Referral Agencies

Steve Erikson, LSCSW, Kansas Department of Social and Rehabilitation Deanna Freeman, Jewell County Hospital

Deborah Fromer, MT (ASCP), MPH, University of Kansas School of Medicine - Wichita

Heather Fuller, MS, Office of Health Promotion, Kansas Department of Health and Environment

Barbara Gibson, MS, Office of Local and Rural Health, Kansas Department of Health and Environment

Robin Gingerich, Adult Literacy Project Center for Research on Learning

Cheryl Goetz, BSN, Gove County Health Department

Sharon Goolsby, RN, Kansas Department of Health and Environment

Nancy Graves, Community Health Council of Wyandotte County

Allen Greiner, MD, PhD, University of Kansas Medical Center

Sarah Gronberg, Office of Health Promotion, Kansas Department of Health and Environment

Richard Guthrie, MD, FAAP, FACE, CDE, Mid America Diabetes Associates

Jean Hall, PhD, University of Kansas

Suzanne Hawley, PhD, MPH, University of Kansas

Aimee James, PhD, MPH, University of Kansas School of Medicine

Anita Hodge, RN, MA, Office of Local and Rural Health, Kansas Department of Health and Environment

Claudia Hohnbaum, MA, RD, LD, Healthy Kids Challenge

Vickie James, RD, LD, Healthy Kids Challenge

Misty Jimerson, MS, Office of Health Promotion, Kansas Department of Health and Environment

Elaine Johannes, PhD, Kansas State University

Carol Johnson, MD, Kansas Academy of Family Physicians

Terri Johnson, MSN, ARNP Kansas Wesleyan University – Division of Nursing Education

Judy Johnston, MS, RD, LD, University of Kansas School of Medicine – Wichita

Theresa Johnston, Tobacco Free Kansas Coalition

Nancy Jorn, MN, ARNP, Lawrence-Douglas County Health Department

Dione Keeling, American Heart Association – Heartland Affiliate

Judy Keller, MBA, CFRE, American Lung Association of Kansas

Jamey Kendall, RN, Bureau for Children, Youth and Families, Kansas Department of Health and Environment

Kim Kimminau, PhD, Kansas Health Institute

Allison Koonce, MSE, CHES, Office of Health and Promotion, Kansas Department of Health and Environment

Sharon Landon, Department of Health and Human Services

Tami Larson, Kansas State Department of Education

Daniel Leong, MHSA, Kansas Hospital Association

Rhonda Lewis, PhD, MPH, Wichita State University

Janette Lockridge, MA, Corporate Wellness Services, LLC

Gerard Lozada, OD, Kansas Optometric Association

Marcia Manter, MA, Oral Health Kansas

Arneatha Martin, RN, MN, ARNP, Center for Health and Wellness

David McDonnell, Occupational Safety and Health Administration, United States Department of Labor – Wichita

Dawn McGlasson, RDH, BSDH, Office of Oral Health, Kansas Department of Health and Environment

Henri Ménager, MPH, Office of Health Promotion, Kansas Department of Health and Environment

Karl Milhon, Bureau of Epidemiology and Disease Prevention, Kansas Department of Health and Environment

Bruce Miyahara, MHA, Miyahara & Associates

Anne Nelson, MS, Central Plains Regional Health Care Foundation

Melissa Ness, MS, JD, Private Consultant

Ann McGrath Davis, PhD, University of Kansas Medical Center

Dorothy (Dot) Nary, MA, Research and Training Center on Independent Living – University of Kansas

Nicole Nollen, PhD, University of Kansas Medical Center

Blanche Parks, MED, BED, Kansas Department on Aging

Angelia Paschal, PhD, University of Kansas School of Medicine – Wichita

Kelly Peak, Kansas Department of Social and Rehabilitation Services

Tom Phillips, AICP, Phillips & Associates

Catima Potter, MPH, Office of Health Promotion, Kansas Department of Health and Environment

Jim Redmon, MSW, MPH, Kansas Children's Cabinet and Trust Fund

Silvia Robinson, PhD, Health Care Foundation for Greater Kansas City

Janel Rose, MS, Barton County Health Department

Kate Sargent, North Kansas School District

Melissa Schoenberger, Office of Health Promotion, Kansas Department of Health and Environment

Penney Schwab, MS, United Methodist Mexican-American Ministries

Teresa Schwab, LMSW, Oral Health Kansas

Ryan Smith, Catholic Charities

Ira Stamm, PhD, ABPP, Private Practice

Jan Stegelman, MS, RD/LD, Office of Health Promotion, Kansas Department of Health and Environment

Hope Sullivan McMickle, Kansas Department of Social and Rehabilitation Services

Kim Sykes, MA, CCCA, Sound Beginnings, Kansas Department of Health and Environment

Sister Janice Thome, Parents as Teachers USD 457 and Ministry of Presence

Tamara Tiemann, MS, RD, LD, Kansas Department on Aging

Cyndi Treaster, LSCSW, Office of Local and Rural Health, Kansas Department of Health and Environment

Maren Turner, AARP – Kansas

Becky Tuttle, MA, Kansas Department of Health and Environment

Mary Virden, RN, MSEd, Community Health Council of Wyandotte County

Kevin Walker, American Heart Association

Mary Weathers, Kansas Department of Social and Rehabilitation Services

Wendy Webb, Kansas Parents As Teachers Association

Dodie Wellshear Johnson, Pat Hurley and Associates

Janet Wetta, MPH, Wichita State University

Beverly White, MS, Center for Health and Wellness

Glen White, PhD, Research and Training Center on Independent Living – University of Kansas

Randy Williams, National Kidney Foundation of Kansas and Western Missouri

Veda Winger, RN, BSN, United Methodist Mexican-American Ministries

Cindy Winters, CTRS, Office of Health Promotion, Kansas Department of Health and Environment

Yazmin Wood, IOM, Arkansas City Area Chamber of Commerce

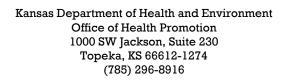
We would also like to extend a special thanks to the Kansas State Historical Society for providing Kansas historical images.

Resources

The results and materials presented in this report were derived primarily from the following resources, which are recommended for further study:

- Centers for Disease Control and Prevention, http://www.cdc.gov
- Kansas Department of Health and Environment, http://www.kdheks.gov
- U.S. Census Bureau, http://www.census.gov
- Healthy People 2010, http://www.healthypeople.gov
- Healthy Kansans 2010, http://www.healthykansans2010.org







Healthy Kansans 2010 http://www.healthykansans2010.org/