KENTUCKY
Heart Disease &
Stroke Prevention
State Action Plan
2011-2016
The future direction of Kentucky's cardiovascular health was developed in a collaborative approach by the Kentucky Heart Disease and Stroke Prevention Task Force and the Kentucky Heart Disease and Stroke Prevention Program. The Task Force is represented by health systems, community-based and professional organizations, businesses, higher level educational institutes and local and state government agencies. The goal of the Task Force is to improve Kentucky's cardiovascular and cerebrovascular health.

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For more information about the plan or the Kentucky Heart Disease and Stroke Prevention Task Force, please contact:

Kentucky Heart Disease and Stroke Prevention Program
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The Kentucky Department for Public Health is pleased to present the Kentucky Heart Disease and Stroke Prevention State Action Plan 2011-2016. This plan outlines objectives and strategies built on the dedication and collaboration among communities and healthcare professionals to address heart disease and stroke in the Commonwealth.

Cardiovascular diseases are the leading cause of death in Kentucky and the nation. Heart disease is the first leading cause of death in Kentucky while stroke is the fifth leading cause of death (2005). Both men and women in the Commonwealth experience higher age-adjusted rates of cardiovascular disease mortality than the nation overall.

The Kentucky Department for Public Health’s Heart Disease and Stroke Prevention Program, in partnership with the Kentucky Heart Disease and Stroke Prevention Task Force, is leading this collaborative effort to transform our state’s cardiovascular health approaches and practices. This is accomplished by utilizing collaborative workgroups to turn knowledge into behavioral change and to increase the use of evidenced based guidelines for health systems change.

This plan delineates the strategies and objectives developed to continue to address prevention and treatment improvements through policy and systems changes to improve the cardiovascular health of Kentucky.

With appreciation to all those individuals who assisted in preparing this document for distribution, my thanks is also expressed to every reader who will become more informed about the serious efforts needed to address the issues of heart disease and stroke in our Commonwealth. Please join us in a concerted effort to positively impact the lives of our fellow Kentuckians affected by cardiovascular disease.

Sincerely,

William D. Hacker, MD, FAAP, CPE
Commissioner
**Background**

Kentucky is a state with many fine traditions: horses, college basketball and beautiful scenery are a few. However, Kentucky is also plagued with the status of being an unhealthy state. It ranks in the top ten among all states for both heart disease (6th) and stroke (10th) mortality (2006). Despite these dismal statistics, all cardiovascular disease (CVD) mortality rates, including heart failure, heart disease, and stroke have declined in Kentucky since 2000.

The Kentucky Heart Disease and Stroke Prevention (KHDSP) Program, through funding from the Centers for Disease Control and Prevention (CDC), set out to address these health issues by focusing on the CDC’s priority areas for heart disease and stroke:

- Prevent and control high blood pressure
- Prevent and control high blood cholesterol
- Eliminate health disparities
- Improve emergency response
- Improve quality of heart disease and stroke care
- Increase knowledge of signs and symptoms for heart attack and stroke and the importance of calling 911

The KHDSP Program has made significant progress in achieving each of the six priority areas and continues working diligently towards these areas showing success in recruiting members from the private and public health care sector to participate in the Kentucky Heart Disease and Stroke Prevention Task Force. Collaboration is a common theme for all public health programs, but specifically for chronic disease prevention programs. Heart disease and stroke are common outcomes when chronic unhealthy behaviors or diseases are not prevented or controlled.

The following KHDSP State Action Plan (2011-2016) outlines the strategies and objectives developed to continue to address prevention and treatment improvements through policy and system changes to improve the CVD situation in Kentucky.

The KHDSP Task Force, spearheaded by the Steering Committee members, garnered buy-in and input from partners across the state for development of this action plan. The Kentucky State Action Plan serves as the guiding document and foundation for the KHDSP Program and the statewide Task Force.
Kentucky CVD Statistics

Figure 1: Leading causes of death (all age groups), Kentucky, 2005

In 2005, one third of all deaths in Kentucky were CVD-related. Of those CVD mortalities, 76 percent were attributed to heart disease and nearly 16 percent to stroke.

Figure 2: CVD deaths in Kentucky, 2005

In 2005, one third of all deaths in Kentucky were CVD-related. Of those CVD mortalities, 76 percent were attributed to heart disease and nearly 16 percent to stroke.

A KHDS Project Task Force was developed in 2006 to address CVD in the Commonwealth. The Task Force is a group of individuals and organizations from public health, health care, government and emergency medical services (EMS) organizations. The initial membership included 27 individuals representing 14 agencies; the Task Force currently has 243 members representing 94 diverse agencies.

Under the KHDS Program’s facilitation, the Task Force developed a strategic map to increase the education and prevention of heart disease and stroke and reduce the variability of care in the state.


Kentucky CVD Statistics

Figure 3: Age-adjusted stroke mortality rates for Kentucky and U.S. by sex, 2003-2006**

Similar to heart disease mortality, stroke mortality rates are higher in Kentucky than the national average, among men and women.

To address the need for a system of stroke care in Kentucky, the KHDSP Program, in collaboration with the American Heart Association (AHA), created the Kentucky Stroke Encounter Quality Improvement Project (SEQIP) in 2008, a statewide quality improvement initiative. The focus is to implement evidence-based integrated cardiovascular health (CVH) delivery systems and to support and advance the quality of care available to stroke patients in Kentucky. The 16 member hospitals work together to choose performance measurements where they focus their quality improvement energies. The first performance measurement chosen was screening for dysphagia. Since inception, an improvement of approximately 20% has been obtained in dysphagia screenings.

SEQIP Hospital representatives

The Kentucky Board of Emergency Medical Services (KBEMS), SEQIP Hospitals and the KHDSP Task Force provide the National Stroke Association’s Stroke Rapid Response (SRR) training to first responders across the Commonwealth.

Partnering with the KBEMS, statewide stroke transport protocols were developed and are included in the SRR curriculum. Ten percent of the over 13,000 emergency responders have been trained to date using SRR as a training curriculum.

Twelve of the 15 Joint Commission on Accreditation of Healthcare Organizations (JCAHO) certified Primary Stroke Centers (PSC) in Kentucky participate in SEQIP.

April 7, 2010, Senate Bill 1 was signed into law by Governor Steven L. Beshear. The legislation requires any hospital seeking to become a PSC in Kentucky to be accredited by JCAHO or another cabinet-approved nationally recognized organization that provides disease specific certification for stroke care; suspend or revoke a designation if certification is withdrawn; promulgate administrative regulations to establish criteria for designation.

Senate Bill 1 is the first piece of stroke legislation to be passed in Kentucky, a significant accomplishment in implementing policy change in the state.

In collaboration with KBEMS, Kentucky Transportation Cabinet, Kentucky Tobacco Prevention and Cessation Program and AHA, the Kentucky HeartSafe Community initiative was developed and implemented in the Commonwealth. The Kentucky HeartSafe Community program is intended to encourage all communities to strengthen every link in the cardiac ‘Chain of Survival’ in their community.

* Map developed by KH DSP Program
Kentucky CVD Statistics

Figure 5:
Kentucky CVD hospitalization crude rates by county, 2008

State rate per 100,000 - 246.9

- 132.4 - 202.2
- 207.8 - 250.2
- 252.1 - 313.3
- 313.6 - 778.9

SEQIP Hospitals

The map above illustrates CVD hospitalization rates in Kentucky by county with the highest rates shown in coral and blue. The map also indicates the nine Kentucky counties with SEQIP Hospitals.

According to the United States Fire Administration (USFA) Report, heart attack remains the leading cause of on-duty fatalities for firefighters. Due to this statistic, the KHDSFP Program partnered with the National Volunteer Fire Council to begin development of their Heart Healthy Firefighter Resource Guide into an online Wellness Module. The module is designed to raise awareness of risk factors and assist in controlling blood pressure and cholesterol.

Map developed by KHDSFP Program
The KHDSP Program partnered with the Northern Kentucky CARE (Cardiovascular Assessment, Risk Reduction and Education) Collaborative project, an outreach effort designed to provide blood pressure awareness educational encounters within the community. The educational encounter tool topics include:

- Heart disease and stroke signs and symptoms
- Smoking cessation
- Blood cholesterol
- Blood pressure
- Sodium reduction
- Body mass index (BMI)
- Hemoglobin A1c

Blood pressure of 140/90 mm Hg or higher is a major risk factor for both heart disease and stroke. In Kentucky, about one-third of adults have been told by a health professional that their blood pressure is high, compared with 29% adults nationally.

Figure 6: Percentage of Kentucky adults with high blood pressure by sex and race, 2007

<table>
<thead>
<tr>
<th>Race</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blacks</td>
<td>34%</td>
</tr>
<tr>
<td>Whites</td>
<td>31%</td>
</tr>
<tr>
<td>Females</td>
<td>31%</td>
</tr>
<tr>
<td>Males</td>
<td>32%</td>
</tr>
</tbody>
</table>

CONGRATULATIONS!
If your blood pressure falls in this category, you are in the optimal range for blood pressure control. Your goal is to keep your blood pressure at this level.

Some ways you can help to stay in this range are:
- Stay at a healthy weight
- Limit salt in your diet
- Limit alcohol consumption
- Get regular physical activity
- Have routine blood pressure monitoring
- Don’t smoke

CAUTION!
If your blood pressure falls in this category, you are in the “borderline” range, also known as “prehypertension”. You are very likely to develop high blood pressure in the future. Take steps now to lower your blood pressure.

Some ways to help lower your blood pressure are:
- Lose excess body weight
- Limit salt in your diet
- Limit alcohol consumption
- Increase physical activity
- Don’t smoke

Kentucky Tobacco Quit Line 1-800-QUIT-NOW (784-8669)

WARNING!
If your blood pressure falls in this category, it is high.

Ongoing high blood pressure or “hypertension” is a serious medical condition that can lead to strokes, heart attacks and other major health problems, even if you feel well. Talk to your doctor right away about ways to lower your blood pressure. Call 911 or go to an emergency room IMMEDIATELY if you have any signs or symptoms of stroke such as those listed on the back of this card.

A regional approach facilitated by the local health departments across the state has been conducted utilizing the CARE Collaborative. Members of the KHDSPE Task Force also implemented the CARE Collaborative initiative in their communities. As of December 2010, the CARE Collaborative Project counseled nearly 100,000 citizens with the educational encounter tool.

In collaboration with the Kentucky Cabinet for Health and Family Services Journey to Wellness Program and the Kentucky and Southern Indiana Stroke Association, a F.A.S.T. Pitch to End Stroke event occurred at a Lexington Legends minor league baseball game (see photo below). The same type of event was held in three other minor league baseball parks in Kentucky to educate the community on stroke. Task Force member hospitals’ stroke teams in each region and stroke survivors participated. In all locations, a stroke survivor threw out the first pitch before the game.

High sodium consumption is a major contributor to high blood pressure, a leading cause of stroke, coronary heart disease, heart attack, and heart and kidney failure in the U.S. The 2010 Dietary Guidelines for Americans recommend limiting sodium to less than 2,300 milligrams (mg) per day. Individuals who are 51 years and older and those of any age who are African American or have hypertension, diabetes, or chronic kidney disease should limit intake to 1,500 mg of sodium per day. These groups account for about half the U.S. population and the majority of adults.

In addition to the CARE Collaborative, in partnership with the Kentucky Justice and Public Safety Cabinet/Corrections Division (inmate population ~ 12,000) an initiative has begun to decrease sodium content in one or more food items by six percent by altering procurement policies.
The percentage of adult Kentucky women with high cholesterol is 41%. Females in Kentucky have a higher heart disease age-adjusted death rate of 205 per 100,000 as compared to the national average of 176 per 100,000. Since heart disease is the number one killer of Kentucky’s women, the AHA, *Go Red for Women* awareness campaign is targeting a priority population for our state.

Over 25 percent of Kentucky’s counties participated in *Go Red for Women* to raise awareness of heart disease locally.

Some of the partnership organizations that participated in *Go Red for Women* events included:

- ☝️ Anthem Blue Cross and Blue Shield
- ☝️ Delta Dental
- ☝️ Kentucky Beef Council
- ☝️ Kentucky Medical Research Center
- ☝️ Macy’s
- ☝️ *Today’s Woman* Magazine

Addressing the Risk Factors

In 2008, the KHDSP Program in collaboration with university partners developed a Kentucky Heart and Stroke Report Card. It highlighted the most prevalent risk factors for stroke and heart attacks and how Kentucky compares nationally. It was distributed statewide as a public health education campaign.

When it comes to the health of our people, Kentucky doesn’t compare well to the rest of the nation. This is particularly true when it comes to the rate of cardiovascular diseases, like stroke and heart attack.

Risk factors for cardiovascular disease are things that make us more likely to suffer from stroke and heart attack. Some, like our age and family history, are out of our control. Most risk factors, however, are things we can do something about. And that means we can take action to reduce our risk and improve our cardiovascular health.

What can we do? Here are just a few examples of how small changes can make a significant difference to your health:

- **Keeping your blood pressure under control** is extremely important. Reducing the top number in your blood pressure reading by just 5 points can cut stroke risk by 35 percent.

- **Keeping your cholesterol levels down by exercising, choosing a healthy diet and taking medicine if our doctor prescribes it** can give your health a major boost. Did you know that a 10 percent decrease in total cholesterol level translates into an estimated 30 percent decrease in heart disease?

- **Getting regular, moderate exercise** reduces stroke risk by 40 percent.

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**Where Does Kentucky Stand in Stroke and Heart Attack Risk?**

When compared to the national average for stroke and heart attack, Kentucky doesn’t fare well. The following table lists the major modifiable risk factors for stroke and heart attack. We have a long way to go to improve our health, however, you can make a difference.

**Kentucky versus the national average in percentage of its population in high risk categories**

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Kentucky</th>
<th>Nationwide</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Blood Pressure</td>
<td>30.0%</td>
<td>27.8%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>9.9%</td>
<td>8.0%</td>
</tr>
<tr>
<td>High Cholesterol</td>
<td>38.5%</td>
<td>37.6%</td>
</tr>
<tr>
<td>Cigarette Smoking</td>
<td>28.2%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Cardiovascular Disease Stroke</td>
<td>3.5%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Heart Attack</td>
<td>6.0%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Overweight</td>
<td>69.1%</td>
<td>62.9%</td>
</tr>
<tr>
<td>Sedentary Lifestyle</td>
<td>30.3%</td>
<td>22.6%</td>
</tr>
</tbody>
</table>

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This publication was supported by a Cooperative Agreement from CDC. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC.
Addressing the Risk Factors

Figure 9:
Percentage of Kentucky adults who are current smokers, 2008

Kentucky’s smoking rate of 25% is one of the highest adult smoking rates in the nation (BRFSS, 2008). Nationally, 21% of adults are current smokers (National Health Interview Survey, 2008).

The Kentucky Tobacco Quitline offers free, one-on-one proactive counseling for tobacco users. From July 2010 through March 2011, Kentucky has had 2,659 contacts to the Tobacco Quitline.

The Kentucky Cabinet for Health and Family Services, Department for Medicaid Services has responsibility to administer the Medicaid program. In 2010, Medicaid was authorized by federal law for the administrative regulation establishing the department’s coverage and reimbursement of tobacco benefits, tobacco cessation medication and counseling assistance.

Smoke-Free Kentucky is a coalition of organizations and individuals who support making all public and work places 100% smoke-free in order to protect citizens and workers from the proven dangers of secondhand smoke.

Kentucky State Action Plan 2011-2016

The 2011-2016 KHDSP State Action Plan delineates strategies and objectives that impact the reduction of heart disease and stroke and related risk factors in the Commonwealth. The overall goals for this plan match the goals from *A Public Health Action Plan to Prevent Heart Disease and Stroke*. The KHDSP Program has also added an additional goal related to the quality improvement process i.e. improve quality of care.

**Model 1: Key Components in HDSP State Action Plan**

The achievement of the above goals will incorporate focusing on the following “ABCs” priority strategies:

- **A**spirin
  Increase low-dose aspirin therapy according to recognized prevention guidelines

- **B**lood Pressure
  Prevent and control high blood pressure; reduce sodium intake

- **C**holesterol
  Prevent and control high blood cholesterol

- **S**moking Cessation
  Increase the number of smokers counseled to quit and referred to Kentucky Quitline; increase availability of no or low-cost cessation products
Goal A: Utilization of Evidence-Based Prevention Strategies

Objective A1: Identify/prioritize key messages

- **Strategy 1:** Research key messages that promote ABCS in accordance with CDC’s priority areas for heart disease and stroke

- **Strategy 2:** Discuss key messages and determine three to four priority key messages for promoting prevention strategies for communities and providers
Objective A2: Implement key prevention strategies

- **Strategy**: Research evidence-based strategies to target community, worksites and providers

Through continued community education from member organizations of the KHDSP Task Force, the KHDSP Program’s goal is to use consistent prevention messages throughout the Commonwealth to decrease the number of heart disease and stroke incidents in Kentucky.
Objective A3: Disseminate and facilitate key prevention strategies

• **Strategy 1:** Disseminate and facilitate a statewide prevention public awareness campaign targeting the general public (community/disparate population), worksites and health care providers

• **Strategy 2:** Distribute the prevention plan to key stakeholders in Kentucky

• **Strategy 3:** Review, evaluate and update the prevention strategies

KHDSP Risk Score Card was distributed through the Kentucky Medical Association provider tool kits and the Kentucky CARE Collaborative.

### Heart / Stroke Risks

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>High Risk</th>
<th>Caution</th>
<th>Low Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Pressure</td>
<td>&gt;140/90 or not sure</td>
<td>120-139/80-89</td>
<td>&lt;120/80</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>&gt;240 or not sure</td>
<td>200-239</td>
<td>&lt;200</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Yes</td>
<td>Pre-diabetes</td>
<td>No</td>
</tr>
<tr>
<td>Smoking</td>
<td>Smoker</td>
<td>Trying to quit</td>
<td>Non-smoker</td>
</tr>
<tr>
<td>Atrial Fibrillation</td>
<td>Irregular heartbeat</td>
<td>I don’t know</td>
<td>Regular heartbeat</td>
</tr>
<tr>
<td>Diet</td>
<td>Overweight</td>
<td>Slightly overweight</td>
<td>Normal</td>
</tr>
<tr>
<td>Exercise</td>
<td>Couch potato</td>
<td>Occasionally</td>
<td>Regularly</td>
</tr>
<tr>
<td>Family history of heart attack or stroke</td>
<td>Yes</td>
<td>Not sure</td>
<td>No</td>
</tr>
</tbody>
</table>

**Know the symptoms of a heart attack**
- Chest discomfort lasting more than a few minutes; pressure, squeezing, fullness or pain
- Discomfort in one or both arms, the back, neck, jaw or stomach
- Shortness of breath with or without chest discomfort
- Cold sweat, nausea or light-headedness
- Women most often experience chest pain or discomfort, but may be more likely than men to experience shortness of breath, nausea/vomiting, and back or jaw pain.

**Know the symptoms of a stroke**
- Sudden numbness or weakness of face, arm or leg – especially on one side of your body
- Sudden confusion, trouble speaking or understanding
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, loss of balance or coordination
- Sudden severe headache with no known cause

If you or someone you are with have any of these symptoms

**Call 911 immediately; every minute counts**

Kentucky Heart and Stroke Prevention Program
**Goal B: Utilization of Evidence-Based Integrated CVH Delivery Systems**

**Objective B:** Statewide implementation of cardiovascular and cerebrovascular systems of care

- **Strategy:** Identify and improve current cardiovascular and cerebrovascular systems of care

**Objective B1: Improve statewide cerebrovascular systems of care**

- **Strategy 1:** Identify and improve current stroke systems of care
- **Strategy 2:** Continue with the SEQIP
- **Strategy 3:** Engage at least two hospitals in south-central/southeastern Kentucky in becoming PSC certified

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**Model 3: Key Components in Detecting and Treating Risk Factors and Improving Quality of Care**

- Improve quality of heart disease and stroke care in Kentucky

**Detect & Treat Risk Factors; Improve Quality of Care**

- Improve Worksites’ Systems/Environments
- Improve Health Care Sites’ Systems/Environments
- Cultivate & Expand Partnerships
- Collect/Evaluate Data
- Process & Outcome Evaluation
- Guideline Compliance
- Signs & Symptoms
  - Call 911
- Emergency Medical Services (EMS)
Objective B2: Improve statewide cardiovascular systems of care

• **Strategy 1:** Identify and improve current heart systems of care

• **Strategy 2:** Engage receiving hospitals to work with its referral base to improve patient outcomes

• **Strategy 3:** Provide education to patients, families and the public on recognizing the signs and symptoms of Acute Myocardial Infarction (AMI) and the need to call 911 immediately

• **Strategy 4:** Engage the KBEMS in heart systems of care

In order to improve heart disease and stroke outcomes, the KHDSP Program will continue its efforts to increase its reach further in the Commonwealth and enlist more health care organizations to participate in the KHDSP Task Force. Sharing evidence-based practices with other providers will be essential to decrease the variability of care in the Commonwealth.
Model 4: *Key Components in Securing Policy Changes and Preventing Recurrences*

Eliminate health disparities in terms of race, ethnicity, gender, geography or socioeconomic status.

Kentucky State Action Plan 2011-2016

- Develop & Secure Policy
- Build Statewide Support
- Educate Stakeholders, Policy Makers & Citizens
- Collect/Evaluate Data
- Process & Outcome Evaluation
- Cultivate & Expand Partnerships
- Improve Health Care Sites’ Systems/Environments
- Improve Worksites’ Systems/Environments
- Educate Communities
- Target Disparate Populations
Goal C: Secure Policy and Environmental Changes

Objective C1: Develop policy priorities for heart disease and stroke annually

• **Strategy:** Secure passage of state stroke registry legislation

Objective C2: Identify and secure sources for state funding

• **Strategy:** Explore a state appropriation and evaluate other funding opportunities

Objective C3: Build support across the state for a statewide smoke-free legislation

• **Strategy:** Secure passage of a comprehensive statewide smoke-free law

A critical piece of legislative support will focus on the establishment of a statewide smoke-free law.
Evaluation

A critical component of the KHDSP State Action Plan is an evaluation of the goals, strategies and objectives outlined in this document. Evaluation verifies that the KHDSP Program is achieving its goals and progressing toward its intended long-term outcomes. Evaluation methodology will be utilized to:

- evaluate how policy and environmental strategies were implemented
- evaluate the extent to which the program is being implemented as intended
- determine whether the program is appropriately focusing its CVH efforts, especially toward priority populations

This will be achieved through an organized group effort. The Evaluation Team is comprised of Kentucky citizenry and representatives of various partnership organizations.

Evaluation will be based on the CDC’s framework for program evaluation which includes six steps and four standards:

Partnership evaluation is one of the initial endeavors of this effort. The following is the **Kentucky Heart Disease and Stroke Prevention Partnership Logic Model**:

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds</td>
<td>Identify and recruit members</td>
<td>Increased collection and reach</td>
</tr>
<tr>
<td>Staff</td>
<td>Train members</td>
<td>Policy and system level change</td>
</tr>
<tr>
<td>Time</td>
<td>Facilitate meetings and sub-committees</td>
<td>Leveraged resources for HDSP</td>
</tr>
<tr>
<td>Resources</td>
<td>Facilitate communication &amp; decisions</td>
<td>Reduce heart disease and stroke risk factors</td>
</tr>
<tr>
<td></td>
<td>Focus on CDC &amp; KY health issues</td>
<td>Improvements in KHDSP priority areas (e.g. ABCS, emergency response, etc.)</td>
</tr>
<tr>
<td></td>
<td>Develop strategic map</td>
<td>Improved partnership</td>
</tr>
<tr>
<td></td>
<td>Develop &amp; publish state plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implement state plan objectives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evaluate partnership</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Short</th>
<th>Medium</th>
<th>Long</th>
</tr>
</thead>
<tbody>
<tr>
<td>New members recruited to the Task Force</td>
<td>Policy and system level change</td>
<td>Reduced heart disease and stroke disease burden in Kentucky</td>
</tr>
<tr>
<td>Active sub-committees</td>
<td>Increased in planning &amp; executing program objectives</td>
<td></td>
</tr>
<tr>
<td>Increase in communications &amp; decisions</td>
<td>Strategic map created</td>
<td></td>
</tr>
<tr>
<td>Focus on CDC &amp; KY health issues</td>
<td>State plan published</td>
<td></td>
</tr>
<tr>
<td>Develop strategic map</td>
<td>KHDS interventions in place</td>
<td></td>
</tr>
<tr>
<td>Develop &amp; publish state plan</td>
<td>Partnership improvement plan</td>
<td></td>
</tr>
<tr>
<td>Implement state plan objectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluate partnership</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>External Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustained federal funding</td>
<td>Competing partner and government priorities</td>
</tr>
<tr>
<td>Sustained partner involvement</td>
<td>Political support</td>
</tr>
<tr>
<td></td>
<td>Lack of state funds</td>
</tr>
</tbody>
</table>
Appendix

Kentucky Heart Disease and Stroke Prevention
Strategic Plan: 2011-2016

Improve Kentucky’s Cardiovascular and Cerebrovascular Health

- Utilization of Evidence-Based Prevention Strategies
- Utilization of Evidence-Based Integrated CVH Delivery Systems
- Secure Policy and Environmental Changes

Target health care sites, work sites, communities and disparate populations

Conduct process and outcome evaluation

Cultivate and expand collaboration and partnerships to enhance capacity

- Identify and prioritize key prevention messages
- Implement key prevention strategies
- Disseminate and facilitate key prevention strategies
- Implement statewide heart and stroke systems of care
- Improve heart systems of care
- Improve stroke systems of care

- Develop and secure support for policy priorities
- Identify and secure sources for state fund matching
- Build support across the state for a statewide smoke-free legislation
Goal: Utilization of Evidence-based Prevention Strategies

A1 Objective: Identify/prioritize key messages

Strategy 1: Research 10 key messages that promote ABCs in accordance with CDC focus areas

Strategy 2: Discuss 10 key messages and determine three to four priority key messages for promoting prevention strategies for communities and providers as a subcommittee by November 2011

Action Items A: Identifying/Research
- Key messages
- Audience
  - Priority Marketing Message: Kentucky Takes Action
  - Priority Community Messages:
    - Know Your Numbers
    - Read the Label – Read It Before You Eat It
    - Heart Disease is the Number 1 Killer (Go Red)
    - Kentucky Takes Action
  - Priority Provider Messages:
    - Know Your Numbers
    - Read the Label – Read It Before You Eat It

Action Items B: Prioritize messages
- Connecting messages to stakeholders
- Determine approach

Action Items C: Finalize
- Distribute document – Steering Committee/Task Force
- Review – Steering Committee/Task Force

A2 Objective: Implement key prevention strategies

Strategy: Research evidence-based strategies to target community, worksites, providers

Action Items A:
- Develop a web group of subcommittee members by email roster and create working website in Communities in Balance for committee use by December 2011 for review of evidenced-based strategies
- Complete webinar training for at least 15 subcommittee members on utilization of Communities in Balance website by February 2011
• Review existing literature and each committee member contribute strategies, recommendations, materials recommendations and other useful techniques from the following resources to be uploaded onto Communities in Balance workgroup website by March 2011:

- PubMed search
- Media
- Identify resources/champions
- Network/collaborate (resources)

**Action Items B:**

- Produce/compile materials for provider population
  - Develop tool kits
  - Develop media kits
  - Develop tool kit of media and prevention campaign materials for widespread distribution by May 2012

**A3 Objective: Disseminate and facilitate key prevention strategies**

**Strategy 1:** Disseminate and facilitate a statewide prevention public awareness campaign targeting the general public (community/disparate population), worksites and health care providers

**Action Items:**

- Develop marketing campaign surrounding the *Kentucky Takes Action* messaging by May 2012

**Strategy 2:** Distribute the prevention plan to key stakeholders in Kentucky

**Action Items:**

- Determine list of key stakeholders including at least 1000 providers and 75 organizations or businesses by May 2012 for dissemination/distribution purposes
- Identify home/central repository of concepts material
- Mail, email, media conference dissemination
Strategy 3: Review/evaluations/update

Action Items:
- Analyze progress of key stakeholders list and readiness of toolkit with goal of determining distribution for 2013
- Encourage stakeholders to document and report encounters
- Host online database
- Evaluate

Goal: Utilization of Evidence-Based Integrated CVH Delivery Systems

B Objective: Statewide implementation of Cardiovascular and Cerebrovascular Systems of Care

Strategy: Identify and improve current Cardiovascular and Cerebrovascular Systems of Care

Action Items:
- Accomplishing through Objectives B1 and B2

B1 Objective: Improve statewide cerebrovascular systems of care

Strategy 1: Identify and improve current stroke systems of care

Action Items:
- Identify primary stroke centers
- Identify hospitals who have given rtPA in the past 12 months
- Identify hospitals who have not given rtPA in the past 12 months
- Engage the Office of Rural Health
- Develop and disseminate transfer protocols

Strategy 2: Continue SEQIP through FY 2016

Action items:
- Assess current SEQIP members for continued participation by March, 2011
- Recruit at least one hospital from an underserved area by December, 2011
- Identify methods for non-Get With the Guidelines hospitals to participate in SEQIP by June, 2012
- Identify methods for non-Get With the Guidelines hospitals to submit data by June, 2012
- Utilize SEQIP data as state stroke registry by June, 2013
Strategy 3: Engage at least a total of two hospitals in south-central/south-eastern Kentucky in becoming PSC ready by 2016

Action items:
- Disseminate Kentucky State plan for Stroke Systems of Care and statewide map to target hospitals by March, 2012.
- Create a “stroke program tool kit” for target hospitals by December, 2012
- Monitor and provide support for stroke program development to target hospitals through December, 2016

B2 Objective: Improve statewide cardiovascular systems of care

Strategy 1: Identify and improve current heart systems of care

Action items:
- By June 2011, identify percutaneous coronary intervention (PCI) facilities that have surgical backup
- By June 2011, identify PCI facilities that do not have surgical backup
- By June 2011, identify facilities that do cardiac catheterizations only
- By June 2011, identify referral hospitals
- By December 2011, utilize referral maps identify gaps in associations with receiving facilities
- By January 2015, assist referral hospitals in the development and implementation of a transfer protocol
- By June 2011, identify other referral sources i.e. urgent care centers

Strategy 2: Engage receiving hospitals to work with its referral base to improve patient outcomes

Action items:
- Engage PCI hospitals to provide community education and outreach
- Utilize evidence-based practices for education and development of transfer protocols
- Develop a rapid plan of care for patient transfers
- Assess barriers in small hospitals
- Provide community and EMS education and outreach
- Provide a feedback plan for all receiving and referral hospitals to improve outcomes
- Discuss the need for referral staff compliance with using feedback to improve outcomes
Strategy 3: Provide education to patients, families, and the public on recognizing the signs and symptoms of AMI and the need to immediately call 911

Action items:
- Engage the locally funded local health department (LHD) systems of care for community education
- Engage the Medicaid Managed Care to deliver AMI information to their clients and providers
- Distribute patient education resources
- Describe the possible differences in AMI presentation between males and females
- Distribute physician toolkits
- Partner with radio and TV stations to deliver messaging to the public
- Develop and disseminate messages that emphasize the need for early treatment to decrease death rates
- Promote community cardiopulmonary resuscitation (CPR) programs
- Promote community automated external defibrillation (AED) programs and training

Strategy 4: Engage the KBEMS in heart systems of care

Action items:
- Schedule a meeting with the medical director of KBEMS
- Review transport protocols and make recommendations based on evidence-based practices
- Assess the 12-lead capabilities of Kentucky EMS
- Explore the increased adoption of 12-lead EKGs with advanced cardiac life support (ACLS) trained personnel
- Engage KBEMS in a discussion regarding transporting segment elevation myocardial infarction (STEMI) patients to the nearest PCI capable facility
- Develop communication systems between hospitals to expedite and track the care of STEMI patients
- Assess access to helicopter services
- Review helicopter STEMI protocols
- Provide education to dispatchers on the appropriate screening of AMI patients
Goal: Secure Policy and Environmental Changes to Improve the Cardiovascular and Cerebrovascular health of Kentuckians.

C1 Objective: Develop policy priorities for heart disease and stroke by August of each year

Strategy: Secure passage of state stroke registry legislation by the close of the 2012 legislative session

Action Items:
- Identify and train 60 advocates by February 9, 2011
- Secure support from the 16 SEQIP hospitals by January, 2011
- Secure bill sponsor by January, 2011
- Educate lawmakers on legislation through April, 2012

C2 Objective: Identify and secure sources for state match funding by April, 2012

Strategy: Explore a state appropriation and evaluate other funding opportunities

Action Items:
- Working with members of the task force, educate lawmakers about the CVD program and need for funding through April, 2012
- Meet with cabinet leaders and other members of administration to make this a funding priority by December, 2011
- Present a proposal to task force members and other stakeholders to invest in the program by January, 2012

C3 Objective: Build support across the state for a statewide smoke-free legislation

Strategy: Secure passage of a comprehensive statewide smoke-free law by the close of the 2013 legislative session

Action Items:
- Identify and train at least 100 advocates by February, 2011
- Secure support from at least 30 stakeholder organizations by February, 2011
- Secure bill sponsor by January, 2011
- Secure informational hearing by March, 2011
- Increase the number of supportive stakeholder organizations to 50 by the fall of 2011
- Reintroduce legislation in January, 2012
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Kentucky Department for Public Health - Workforce Development Branch
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